UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

PRO-GUN VERSUS GUN CONTROL ISSUE POSITIONS: RESPONSIBILITY FRAMING IN NEWS COVERAGE OF MASS SHOOTINGS, ATTITUDES CHANGE, AND CIVIC ENGAGEMENT INTENTIONS

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

Doctor of Philosophy

By XIAO LIU

Norman, Oklahoma

2026

PRO-GUN VERSUS GUN CONTROL ISSUE POSITIONS: RESPONSIBILITY FRAMING IN NEWS COVERAGE OF MASS SHOOTINGS, ATTITUDES CHANGE, AND CIVIC ENGAGEMENT INTENTIONS

A DISSERTATION APPROVED FOR THE

GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION

BY THE COMMITTEE CONSISTING OF

Dr. Glenn Leshner, Chair

Dr. Trina Hope

Dr. David Craig

Dr. Melanie Wilderman

©Copyright by XIAO LIU 2026

All Rights Reserved.

Dedication

To my mom, my grandparents, my husband, and my two cats, Topa and Papu.

Acknowledgments

I would like to express my sincere gratitude to my dissertation committee members for their guidance, support, and encouragement throughout this project.

I am especially grateful to my dissertation chair, Dr. Glenn Leshner, for guiding me through every stage of this dissertation, from developing the initial research idea to completing the proposal and refining the many details of the study. I also appreciate h his financial support for part of the participant recruitment costs, which eased the financial burden of conducting this study.

I would also like to thank Dr. Trina Hope, my Graduate College representative, for bringing valuable sociological perspectives to my study and helping me think more carefully about the broader societal context of mass shooting violence.

I am grateful to Dr. David Craig for his thoughtful feedback on the stimulus design and for sharing valuable insights into journalistic practice and media ethics. His perspectives helped me interpret the study's findings and consider their broader implications more deeply.

I would also like to thank Dr. Melanie Wilderman for her helpful suggestions on the stimulus design and for sharing her valuable perspective on community journalism, which helped me more appropriately conceptualize and operationalize the related concepts in this study.

I sincerely appreciate the time, expertise, and support that each committee member generously provided throughout my dissertation journey. Their guidance has been invaluable in bringing this study to completion.

Abstract

Mass shootings have become a pressing public issue in the U.S. and have drawn increasing media attention. This study explored responsibility framing, content structures, and localization in news reporting in relation to audience responses to mass shooting news. Guided by Framing Theory, Transportation Theory, and Construal-Level Theory, an online experiment was conducted with 486 U.S. adults. Responsibility framing, content structures, and localization were manipulated between subjects; message variance was manipulated within subjects through three fictional text-based news reports about mass shootings in a grocery store, a high school, and a music festival. Results showed a selective and context-dependent pattern of effects. Individual-level responsibility framing increased individual-level causal and treatment responsibility attributions, whereas structural-level responsibility framing did not significantly increase structural-level responsibility attributions. Narrative news increased narrative engagement, the discrete emotion of fear, and fear of crime. Psychological proximity was positively associated with fear of crime and civic engagement intentions, but localization in news reporting did not significantly increase psychological proximity, and mediation through psychological proximity was not supported. However, structural-level responsibility framing combined with a national news perspective produced higher psychological proximity and perceived newsworthiness, suggesting that nationally situated structural explanations may make mass shootings feel more like a broader public-safety problem than isolated tragedies. Theoretical contributions and professional implications for mass shooting news coverage are discussed.

Keywords: mass shootings, gun policy, responsibility attributions, framing effects, narratives, community news, national news, psychological proximity, fear of crime, newsworthiness.

Table of Contents

Chapter 1. Introduction 1

1.1. Mass Shootings and Gun Issue Positions in the U.S. 1

1.2. News Coverage of Mass Shootings 3

1.2.1. Responsibility Framing in News Coverage 4

1.2.2. Content Structures of News Message on the Mass Shooting Issue 10

1.2.3. Community Journalism and Civic Engagement Intentions 12

1.3. Summaries 16

Chapter 2. Literature Review 17

2.1. Mass Shootings and Gun Debates in the U.S. 18

2.1.1. Gun Violence: The Rise of Mass Shootings and Deaths 18

2.1.2. From "Everyone Should Have a Gun" to "Not Everyone Needs a Gun" 24

2.2. Media Coverage and Mass Shooting Issue 26

2.2.1. News Framing Effects on Understanding the Mass Shooting Issue 29

2.2.2. News Content Structure Matters: Narrative Versus Non-Narrative News Reporting . 55

2.2.3. Psychological Proximity to the Covered Event: Localization in News Reporting 97

2.3. Conclusions 153

Chapter 3. Methodology 153

3.1. Participants 154

3.2. Independent Variables 155

3.2.1. Responsibility Framing 155

3.2.2. Content Structures 157

3.2.3. Localization in News Reporting 158

3.3. Dependent Variables 160

3.3.1. Audiences' Causal Responsibility Attributions for the Mass Shooting Issue 161

3.3.2. Audiences' Treatment Responsibility Attributions for the Mass Shooting Issue 167

3.3.3. Narrative Engagement 171

3.3.4. Discrete Emotions 174

3.3.5. Psychological Proximity 175

3.3.6. Fear of Crime 177

3.3.7. Civic Engagement Intentions 177

3.3.8. Perceived News Credibility, Newsworthiness, and News Quality 179

3.3.9. Demographic Variables 180

3.4. Stimuli Design 181

3.5. Pretest 182

3.6. Procedure 184

3.7. Data Analysis 184

Chapter 4. Results 184

4.1. Data Screening and Preliminary Analyses 185

4.1.1. Sample Size and Missing Data 185

4.1.2. Demographic Characteristics 186

4.1.3. Condition Assignment and Randomization Balance Checks 187

4.1.4. Distributional Diagnostics 189

4.1.5. Zero-Order Correlations Among Message-Specific Variables 189

4.2. Hypothesis Testing 190

4.2.1. Assumption Checks 190

4.2.2. Mixed-Design Repeated-Measures ANOVA Results 196

4.2.3. Mediation Analysis Results 236

4.2.4. Summary of Hypothesis Testing 240

Chapter 5. Discussion and Conclusion 241

5.1. Unpacking the Study's Key Findings 245

5.1.1. Responsibility Framing: The Power of the Individual-Level Lens in the U.S. 245

5.1.2. Content Structures: The Emotional Reach of Narrative News 249

5.1.3. Beyond Localness: How National News Perspective Produces Psychological Proximity 254

5.1.4. The Complexity of Interactions: Vividness Versus Abstraction 261

5.1.5. Mediated Message Evaluation 267

5.1.6. Contextual Nuance: The Role of Message Variance 271

5.2. Theoretical and Practical Implications 274

5.2.1. Theoretical Contributions 274

5.2.2. Journalistic Practice and Ethics 280

5.3. Limitations and Future Research 285

5.3.1. Methodological Constraints: The Limits of a Single-Exposure Stimulus 285

5.3.2. Conceptual Complexity of Responsibility Attributions for Mass Shootings 286

5.3.3. Ecological Validity in a Digital Era 289

5.3.4. Future Directions 290

5.4. Final Conclusion 292

References 295

Appendix A 354

Appendix B 355

Appendix C 381

Chapter 1. Introduction

1.1. Mass Shootings and Gun Issue Positions in the U.S.

Mass shootings have become a significant social issue in America, attracting widespread public attention (LaFree et al., 2015; Li et al., 2023). Extensive research has found an increased number of mass shootings in the U.S. (e.g., Cohen et al., 2014; Duwe, 2020; Krouse & Richardson, 2015; Lankford & Silver, 2020; Sanders & Lei, 2018; Smart & Schell, 2021), albeit different definitions of a mass shooting and differing periods chosen for investigating trends of mass shootings make it complex to draw a firm conclusion about how mass shootings have changed over time (Fox & DeLateur, 2014; Gramlich, 2023; Lopez et al., 2020; Smart & Schell, 2021).

Katsiyannis and colleagues (2023) found a continued upward trend in mass shootings, school mass shootings, and related deaths from 2017 to 2022. The Federal Bureau of Investigation (FBI) found increased active shooter incidents between 2000 and 2021 (Gramlich, 2023). When researchers lengthened the time range to include more recent years and applied four fatalities as the threshold to define mass public shootings, they found significantly increased incidence and lethality of the shootings over time (Duwe, 2020; Lankford & Silver, 2020; Sanders & Lei, 2018). Moreover, regardless of disagreement on definitions of a mass shooting and time frames picked to analyze its trend, mentions of "mass shooting" in media have become increasingly ubiquitous nowadays, which has been found to increase public awareness of the incidents (Elsass et al., 2014; Joslyn & Haider-Markel, 2018; Roeder, 2016; Schildkraut et al., 2017).

Aside from the lethality of mass shootings themselves, negative consequences follow mass shootings. Previous research has suggested the negative effects of mass shootings on the

mental health of both victims and directly or indirectly exposed individuals (Brener et al., 2002; Kaminski et al., 2010; Lowe & Galea, 2017). Soni and Tekin's (2023) study showed that mass shootings were also found to be adverse to perceived community well-being, such as feeling safe about, having pride in, and liking the community, which could further become social costs. That means, beyond victims and their families, a mass shooting incident could also negatively affect the perception of community well-being of residents not immediately exposed to the incident. Additionally, economic consequences could follow, such as a long-term drop in employment and income (Brodeur & Yousaf, 2019) and a short-term decline in hotel performance (Li et al., 2023).

Gun use is deeply rooted in American society and political controversies (Schaeffer, 2024). There has been a long debate between pro-gun versus gun control issue positions—ranging from the view that almost everyone should own guns legally to the view that almost no one should own guns legally (Parker et al., 2017)—stirred by increased gun violence incidents in the U.S. (Cook & Goss, 2014; Carlson, 2021; Masters, 2022; Hansen, 2023). Pro-gun advocates support less strict gun laws, arguing that this allows citizens to hunt, protects individual freedoms, prevents government tyranny, and enhances personal and public safety (ABC News, 2016; Hansen, 2023; Lund, 2014; U.S. Const. amend. II; Welna, 2013). On the contrary, gun control proponents uphold stricter gun laws and ordinances on gun purchase, possession, and use (ProCon, 2025). They maintain that the right to bear arms is not unlimited, just like most other rights defined by laws, and that the Second Amendment protects the right of a "well regulated militia" (U.S. Const. amend. II) instead of the general public (*District of Columbia et al. v. Heller*, 2008). Facing the mass shooting issue, pro-gun advocates argue that less strict gun laws

for citizens to own guns could reduce gun violence, including mass shooting incidents. On the side of gun control, stricter gun laws and fewer gun owners would address the issue.

People's attitudes toward gun laws could be affected by mass shooting incidents (e.g., Joslyn & Haider-Markel, 2018; B. J. Newman & Hartman, 2019). B. J. Newman and Hartman (2019) found that people's support for gun control increased when their geographical proximity to mass shooting incidents increased. From a different angle, Joslyn and Haider-Markel (2018) found that higher anxiety after mass shooting incidents was related to lessened attitudinal differences between liberals and conservatives on gun laws and blame attributions to mass shooting incidents. Their study showed that more anxious citizens tend to support greater restrictions on gun ownership to reduce future gun violence and are more likely to blame gun availability and terrorism.

1.2. News Coverage of Mass Shootings

As stated before, the mass shooting issue has garnered extensive attention in media coverage (Duwe, 2000; Elsass et al., 2014; Joslyn & Haider-Markel, 2018; LaFree et al., 2015; Schildkraut et al., 2017). Previous research has found that media coverage of mass shootings could influence gun policy changes and public opinions regarding the incidents (e.g., Haider-Markel & Joslyn, 2001; Luca et al., 2020; McGinty et al., 2013; Schildkraut & Elsass, 2016; Wilson et al., 2016). Luca and colleagues (2020) demonstrated that news coverage of mass shootings was positively associated with legislative activities (i.e., state legislatures-introduced firearm-related bills). McGinty and colleagues (2013) found that consuming media messages about mass shootings was related to negative attitudes toward mentally ill persons, which could affect support for mental health care-related policies. Wilson and colleagues (2016) further found that news coverage of mass shootings could be powerful in perpetuating the stigma toward

mentally ill individuals. Haider-Markel and Joslyn (2001) found that different issue frames regarding mass shootings could, to some degree, differently shape participants' opinions toward the issue and related policies.

In the current era of media digitalization, 86% of U.S. adults access news at least occasionally through a smartphone, computer, or tablet, and more than half (56%) do so frequently (Pew Research Center [PRC], 2025). The online environment now accommodates both legacy news organizations and digital-native outlets (PRC, 2023b). In this context, the present researcher conducted a multi-factor experiment to examine the effects of three attributes of digital news messages covering the issue of mass shootings: (1) responsibility framing in news coverage of the issue (individual-level vs. structural-level framing), (2) content structures in reporting (narrative vs. non-narrative), and (3) localization in news reporting (from lower to higher levels: national vs. community news perspective). These factors were examined for their effects on audiences' knowledge of and attitudes toward the issue and related solutions, as well as their civic engagement intentions in community development. This research also explored other responses to the message, including narrative engagement, psychological proximity to crime, fear of crime, and perceptions of news credibility, newsworthiness, and news quality. The theoretical frameworks guiding this study include Framing Theory, Transportation Theory, and Construal-Level Theory.

1.2.1. Responsibility Framing in News Coverage

Media play a crucial role in citizen's daily information-gathering activities and have become a cornerstone of the democratic process by affecting public opinion (de Vreese, 2005). The current study investigated the effects of news coverage on audiences' perceptions of mass shootings and related policies, guided by Framing Theory. According to Framing Theory, to

frame is to choose certain parts of perceived reality and make them more salient in a mediated message (Entman, 1993). This process potentially promotes a specific issue definition, causal explanation, moral evaluation, and/or treatment recommendation for the issue. Accordingly, a media frame is considered an essential organizing idea of a mediated message to suggest what the problem is by employing selection, emphasis, omission, and interpretation (Tankard, 2001). In this setting, by framing an event/issue in particular ways, media could affect audiences' perceptions and understanding of the event/issue (e.g., DeFoster & Swalve, 2018; Li et al., 2023; Ramasubramanian & Martinez, 2017; Schnell & Callaghan, 2005; Schildkraut et al., 2021).

Media framing is part of the communicative process, which is not static but dynamic (de Vreese, 2005). Framing is a dynamic process that happens between the communicator and the receiver, utilizing elements like information, arguments, images, metaphors, and symbols, against certain cultural backgrounds (Entman, 1993; Gamson & Modigliani, 1987). The process of framing involves three phases: (1) frame building (i.e., embedding frames into mediated messages), (1) frame setting (i.e., interactions between media frames and audiences' prior knowledge and tendency), and (3) individual and societal-level consequences of framing (e.g., on the individual level: altered individuals' attitudes toward an issue due to encountering specific frames; on the societal level: shaping systemic processes like political socialization and policymaking; D'Angelo, 2002; de Vreese, 2002; Scheufele, 2000). The current study aims to examine the relationship between frames constructed in news coverage of mass shootings and individual-level framing consequences, including shifts in attitudes toward the issue and related policies.

As indicated by Framing Theory, when reporting on a social problem/event, news media tend to package it in a way easy for audiences to understand (S.-H. Kim et al., 2010). To frame,

media attribute responsibility for the covered problem by suggesting what the problem is, who or what the cause is, and/or what the primary solution could be, which embodies the process of responsibility framing (Entman, 1993; Iyengar, 1991). Responsibility framing can be categorized into two categories: causal and treatment responsibilities (Iyengar, 1989). Causal responsibility addresses the origin of the issue, while treatment responsibility deals with who has the responsibility to solve the issue. The current study investigated news framing of the mass shooting issue from the angle of responsibility attributions (Semetko & Valkenburg, 2000).

There have been two main opposing viewpoints in responsibility attributions for a social problem (Ryan, 1973; Wikler, 2002). One opinion holds individual-level causal and treatment responsibilities. In light of this view, individuals' flaws primarily cause the problem. Put another way, individuals with those deficiencies would often be influenced by the problem. Considering the problem a result of individuals' flaws, the recommended remedies are related to changing problematic individual behaviors and/or attitudes (i.e., individual-level treatment responsibility). On the other side, a social problem is considered in the structural-level causal and treatment responsibilities. In line with this view, a social issue largely stems from policy failure—or, in other words, defects in societal and systematic conditions—such as unequal allocation of economic resources, unethical business practices, insecure social environments, etc. In this setting, the following treatments are relevant to broader social forces, such as better governmental policies and business practices.

Although both individual and structural levels of responsibility attributions can be helpful in understanding and alleviating social issues (Sampson, 2019), social problems are essentially political, implicating compromise and conciliation among competing parties (Hilgartner & Bosk, 1988). It is crucial for these conflicting interests to define the responsibility because this could

ultimately settle which interest(s)—such as governments, industries, individual citizens, or social groups—should be charged for resolving the issue (S.-H. Kim & Willis, 2007). However, despite the complex political or systematic nature of social problems, news media have been found to largely reduce those problems to simple individual-level ones, attributing individual behaviors, lifestyle, and other factors to be accountable for the issues (e.g., An & Gower, 2009; Chattoo et al., 2021; de Vreese, 2005; Iyengar, 1991; S.-H. Kim et al., 2010; Mastin et al., 2007). Due to this, societal-level responsibility tends to be discounted, while individual factors and remedies tend to be overemphasized in media.

As the mass shooting issue has structural roots in the U.S.'s long history of gun ownership, gun laws, politics, and social culture, structural-level interventions should be more effective than those focused on the individual level (Cook & Goss, 2014; Carlson, 2021; Dancy et al., 2019; Ghio et al., 2023; McMillan & Bernstein, 2022; Merry, 2023; Pfaffendorf & Davis, 2021; Schaeffer, 2024; U.S. Const. amend. II). Nevertheless, previous studies have found that news media tend to make the individual-level facet of the mass shooting issue more salient compared to its structural-level facet (e.g., McGinty et al., 2013; Pyne, 2017; Schildkraut, 2016; Schildkraut et al., 2017; Schildkraut et al., 2021; Wilson et al., 2016). The coverage is likely to overemphasize shooters (McGinty et al., 2013; Pyne, 2017; Schildkraut, 2016; Schildkraut et al., 2017; Schildkraut et al., 2021; Wilson et al., 2016) by explicitly naming the shooter, providing details of their life, such as suffering mental illness, or personal grievances or vendettas, and considering the incident that involves shooters of ethnic minorities as more newsworthy. The coverage also tends to focus heavily on victim count statistics, while neglecting national data that could situate mass shooting incidents within the broader systemic discourse on violence across the country (Schildkraut, 2016; Schildkraut et al., 2021).

Based on findings regarding the news media's tendency to attribute the responsibility for the mass shooting issue, the current study examined the effects of responsibility framing in news coverage—one on the individual level and one on the structural level—on audiences' understanding of and attitudes toward the issue and related policies. On the individual level, the mass shooting issue is framed as the result of individuals' deficiencies, such as mental health issues, or personal grievances or vendettas (Holody & Shaughnessy, 2022; Hansen, 2023; Pyne, 2017; Schnell & Callaghan, 2005). To address the issue, recommended treatments often focus on directly changing problematic individual behaviors and attitudes, or on real-time interventions targeting the individual (i.e., the shooter), such as improving mental health care, loosening gun control, and deploying armed resource officers. Meanwhile, the news on the structural level reports the mass shooting issue as the consequence of policy defects, such as loose gun policies and legislation and systematic inequality and marginalization (Cook & Goss, 2014; Carlson, 2021; Dancy et al., 2019; Ghio et al., 2023; McMillan & Bernstein, 2022; Merry, 2023; Pfaffendorf & Davis, 2021; Schaeffer, 2024). In this regard, the recommended remedies include stricter gun regulatory policies, as well as additional measures targeting social disorganization and economic deprivation.

It is meaningful to investigate the effects of responsibility framing in news coverage on audiences' perceptions of the mass shooting issue and related policies. Firstly, according to Framing Theory, by emphasizing certain aspects over others, the mediated message could impact the way audiences perceive and interpret the covered issue or event (D'Angelo, 2002; de Vreese, 2002; Scheufele, 2000). The mass shooting issue has garnered extensive attention in the public and media agendas (Elsass et al., 2014; Joslyn & Haider-Markel, 2018; LaFree et al., 2015; Li et al., 2023; Roeder, 2016; Schildkraut et al., 2017). The issue is grounded in U.S. laws, politics,

and social culture (Cook & Goss, 2014; Carlson, 2021; Dancy et al., 2019; Ghio et al., 2023; McMillan & Bernstein, 2022; Merry, 2023; Pfaffendorf & Davis, 2021; Schaeffer, 2024; U.S. Const. amend. II), but the coverage tends to spotlight the issue's individual-level features while rarely looking into its structural-level roots (e.g., McGinty et al., 2013; Pyne, 2017; Schildkraut, 2016; Schildkraut et al., 2017; Schildkraut et al., 2021; Wilson et al., 2016). Thus, it is crucial to understand the effects of individual and structural levels of responsibility framing in news coverage on audiences' understanding of and attitudes toward the mass shooting issue.

Secondly, due to a little research in the area, how audiences are influenced by news that frames the mass shooting issue on the individual level versus the structural level remains largely unexplored. Previous scholarship has discovered various news frames of the mass shooting issue or, broadly speaking, gun violence (e.g., DeFoster & Swalve, 2018; Pyne, 2017; Schnell & Callaghan, 2005; Schildkraut et al., 2021). They include the constitutional rights frame, the crime and violence frame, the guns cause terrorism frame, the guns stop terrorism frame, the responsibility attribution frame, the gun control frame, the religion frame, the mental health frame, etc. Those frames are not mutually exclusive. Existing research has also demonstrated the effects of some of those frames on audiences' perceptions and policy change, such as the responsibility attribution frame, and the mental health frame (e.g., Birkland & Lawrence, 2009; Haider-Markel & Joslyn, 2001; McGinty et al., 2013; Schnell & Callaghan, 2005; Wilson et al, 2016).

The only existing study on the effects of responsibility attribution framing was conducted by Haider-Markel and Joslyn (2001). They tested the effects of responsibility framing in short persuasive statements on audiences' perceptions of a specific case—the Columbine High School shootings. Therefore, additional research is needed to further investigate the effects of

responsibility framing in news coverage in the broader context of the mass shooting issue, rather than focusing on a single case. Thus, the current study contributes to enhancing the understanding of the mass shooting issue from the perspective of news coverage and helping narrow the gap of research on the effects of responsibility framing in news coverage on audiences' perceptions of the issue.

1.2.2. Content Structures of News Messages on the Mass Shooting Issue

Content structures—whether narrative or non-narrative—are another message attribute that was examined in the present study, given their potential to influence audience acceptance of the primary frame or perspective embedded in news coverage (e.g., Chun & Shi, 2013; Ecker et al., 2020; Greene & Brinn, 2003; Hinyard & Kreuter, 2007; Leshner et al., 2018; McQueen et al., 2011; Oliver et al., 2012). The current study applies Transportation Theory to (1) define and differentiate the narrative content structure from the non-narrative content structure, and (2) predict the effects of mediated messages' differing content structures.

Transportation Theory addresses factors and results of individuals who are absorbed in a story or are transported into a narrative place outside the real world (M. C. Green & Fitzgerald, 2017). The feeling of being immersed in a narrative—referred to as narrative transportation or narrative engagement—is a central assumption of Transportation Theory (M. C. Green, 2021). When individuals feel so immersed in a story, they are fascinated by plots and transported to a narrative world. They may experience strong emotions along with cognitive engagement and form vivid mental imagery of the narrative's main characters or settings. They may also lose their connections to the real world, becoming unaware of their immediate surroundings and/or losing track of time. Losing access to real-world knowledge, individuals' counterarguing could be reduced due to increased connections with characters and heightened perceptions of realism.

As a result, they would tend to adjust their real-world beliefs, thoughts, attitudes, and behaviors to align with those conveyed by the narrative they are exposed to. The narrative-triggered transportation could happen across various media forms, such as written, audio, and/or video storytelling, and has been studied in relation to topics such as health, social issues, and consumer products (M. C. Green & Fitzgerald, 2017).

According to Transportation Theory, the narrative content structure is defined as a sequence of related events and characters, typically connected in a causal association from the beginning to the end of the story (M. C. Green, 2008; Kreuter et al., 2007). The structure of a narrative message is identifiable and bounded in space and time, containing implicit or explicit information related to specific topics addressed in the story. By contrast, the non-narrative content structure refers to presenting propositions with an illustrative and didactic tone in the manner of providing reasons and evidence behind these propositions (M. C. Green, 2008; Kreuter et al., 2007; Murphy et al., 2013). The non-narrative message is straightforwardly factual or evidence-based and, therefore, does not create a world or scene to which message receivers have never been but could be transported. Nonfictional media content—such as documentaries, news articles, autobiographies, and testimonies—could also have a narrative structure or not.

Previous related studies have indicated that it depends on topics and/or situations to find which content structure—among the narrative one and the non-narrative one—is more effective (e.g., Chun & Shi, 2013; Ecker et al., 2020; Greene & Brinn, 2003; Hinyard & Kreuter, 2007; Leshner et al., 2018; McQueen et al., 2011; Oliver et al., 2012). After a systematic review of relevant literature, Donald P. Green (2021) demonstrated that, although head-to-head comparisons between the two content structures have been conducted in prior studies, most of them focused on health behaviors rather than controversial social issues, such as abortion stigma,

early/forced marriage, and gender-based violence. To the best of the present researcher's knowledge, the mass shooting issue, another controversial social issue, has also not yet been researched in this area.

Hence, it is important to explore the effects of different content structures in news coverage of the mass shooting issue on audiences' perceptions of and attitudes toward the issue and relevant policies. The present researcher is also interested in how content structures may interact with responsibility framing on two levels—the individual level versus the structural level—when it comes to news reporting of the mass shooting issue.

1.2.3. Community Journalism and Civic Engagement Intentions

Moreover, the current study examined localization in news reporting as another factor that interacts with responsibility framing and content structures to influence audiences' perceptions of the mass shooting issue. This approach could add complexity to the experimental stimuli but brings it closer to real-world news reporting. Differing localization levels of news reporting serve different markets or audiences' needs. In other words, people turn to national and community news for various reasons because each localization level has specific criteria for determining newsworthiness. National news tends to cover topics of general interest to people across the country, whereas community news gives greater attention to local conditions and residents' concerns. This does not mean that news outlets on a particular localization level would dismiss events occurring on other levels. Rather, news reporting on different localization levels may cover the same events or issues but with different perspectives and priorities.

Community journalism works to inform residents about the shared aspects of their community—such as spaces, institutions, resources, events, and ideas—while encouraging such share to facilitate the negotiation of the common symbolic meaning of the community among its

inhabitants (Lowrey et al., 2008). In this sense, compared to national news media, community journalism—when reporting on events or issues, whether geographically close or distant—embodies a perspective that increases the perceived psychological proximity between local residents and the topic (Freeman, 2020; Harlow & Chadha, 2021; Wenzel, 2020). For instance, when covering a mass shooting incident that occurred out of state, community journalists tend to connect the incident or issue to aspects of the community's shared structure and residents' everyday safety concerns. In this regard, even though the incident is not geographically close, inhabitants may feel mentally proximate to the covered shooting.

Thus, both geographical and psychological proximity to the reported issue or event could influence audiences' political attitudes and behaviors (e.g., Enos, 2016; Gouseti & Jackson, 2015; Jackson & Gouseti, 2015; B. J. Newman, 2015; B. J. Newman & Hartman, 2019; Trope & Liberman, 2010). Instead of investigating geographical proximity—which is primarily determined by the physical location affected by an issue or event—The present study investigated how psychological proximity may be influenced by news coverage of mass shootings from outlets operating on the national and community levels, and how this may affect audiences' issue-related perceptions and behaviors.

When discussing their finding that increased geographical proximity to mass shooting incidents was associated with greater public support for stricter gun control policies, B. J. Newman and Hartman (2019) showed that this relationship was specifically conditioned by the salience of the incident, measured in terms of its frequency, scale, and recency. This notion of salience is similar to the concept of low-level construal of crime within Construal-Level Theory (Gouseti & Jackson, 2015), which sheds light on psychological proximity.

Construal-Level Theory addresses representation mechanisms through which individuals are capable of experiencing and reacting to an issue or event that are geographically distant from their immediate surroundings. According to the theory, the representation of an issue or event could be either high-level or low-level. The high-level construal of an issue or event is defined as the abstract, decontextualized representation of the distant issue or event. The low-level construal refers to the concrete, contextualized representation specific to individuals' immediate surroundings. Based on the definitions, the theory posits that the high-level construal of an issue or event is associated with greater psychological distance from it, whereas the low-level construal is linked to psychological proximity to it (Gouseti & Jackson, 2015; Trope & Liberman, 2010).

The conditional effect of the salience of the mass shooting incident, as demonstrated by B. J. Newman and Hartman (2019), to some degree mirrors the low-level construal of the incident, which strengthens the positive relationship that B. J. Newman and Hartman (2019) found between geographical proximity to the incident and public support for stricter gun control policies. Thus, psychological proximity—whether influencing salience or influenced by low-level construal—still plays a distinct role even when geographical proximity takes effect. From this perspective, the current study's focus on localization in news reporting may enhance understanding of the role of psychological proximity within the framework of Construal-Level Theory.

Prior to the experiment, participants were instructed to assume that the mass shooting incident described in each stimulus occurred in the U.S. but outside the state in which they reside. In this way, psychological proximity or distance to the reported incident can be more explicitly examined and measured. To collect data that more closely reflect participants' real-

world responses, they were also told that, although the names of outlets, individuals, places, and institutions in the stimuli were aliases designed so as not to influence their judgments, the stimuli were genuine news reports of actual mass shooting incidents in the U.S. After the experiment concluded, participants were debriefed, offered apologies for the deception, and provided with an explanation of why this design was necessary. They retained the right to decide whether their data would be included in or excluded from the study. Please see the Methodology chapter for additional details about this design.

Previous relevant studies have demonstrated the application of Construal-Level Theory to the concept of fear of crime by illuminating psychological proximity's influences on cognitive, emotional, and behavioral responses to the individual perceived threat of victimization (e.g., Gouseti & Jackson, 2015; Jackson & Gouseti, 2015). When exposed to the low-level construal of a distant crime, individuals would perceive it as proximal and be more likely to believe that it can occur soon in a nearby place, either to themselves or to people like them. This perceived uncertainty about crimes could, to some extent, predict how fearful, worried, or anxious a person feels about the likelihood of falling victim to the crime, as well as their attitudinal and behavioral responses (Berenbaum, 2010; Jackson, 2011, 2013; Jackson & Gouseti, 2015; Warr, 1987).

Placing Construal-Level Theory and fear of crime within the context of the current study—news coverage of the mass shooting issue—community journalism serves to provide information that engages well-informed local residents in issue-relevant democratic processes, fosters both social pluralism and cohesion, and supports efforts to revitalize citizenship in ways that may help reduce the harms caused by such issue (Barney, 1996). In light of Construal-Level Theory, Community journalism tends to report mass shootings that are either geographically proximate or distant in ways that create a sense of psychological proximity and salience

regarding these incidents. This may induce fear of crime in audiences and influence their political attitudes and behaviors related to the mass shooting issue, such as their understanding of the issue, attitudes toward gun policies (i.e., pro-gun vs. gun control), and civic engagement intentions (e.g., attending town hall meetings, protesting or demonstrating, or participating in public advocacy campaigns for pro-gun vs. gun control issue positions; Lowrey et al., 2008).

Psychological proximity and Construal-Level Theory open up experimental branches for criminological studies, which, for now, have not been methodologically typical in understanding fear of crime (Gouseti & Jackson, 2015). Applying Construal-Level Theory to researching fear of crime could also help find potential approaches to achieve crime control politics in response to public concerns about alternatives to mass incarceration, zero tolerance, tough on crime, and so forth (M. Lee, 2008; Sparks et al., 2001). By incorporating community journalism into the application of Construal-Level Theory's psychological aspect and situating the investigation within the context of the U.S. mass shooting issue, the current study has the potential to contribute to bridging the methodological gap in examining fear of crime, testing Construal-Level Theory's conditional boundaries within media effects, and improving the understanding of community journalism's potential influence on audiences' perceptions of the mass shooting issue, attitudes toward pro-gun versus gun control measures, and civic engagement intentions in community development.

1.3. Summaries

The mass shooting issue has become increasingly disturbing to the public in the U.S. as the frequency of such incidents rises. The harms resulting from mass shootings include mental health problems, a decline in community well-being, long-term reductions in employment and income, and short-term drops in hotel performance. Gun ownership is deeply ingrained in U.S.

societal, cultural, and political debates. The long-standing controversy between pro-gun and gun control viewpoints spans a wide range of opinions—from the belief that nearly everyone should have legal access to guns to the belief that almost no one should. As a crucial role in citizen's daily information consumption and a cornerstone of the democratic process, media coverage of the mass shooting issue could influence public opinion on the issue.

The current research aims to (1) enhance the understanding of mass shootings and related policies through the lens of media effects and (2) address existing research gaps. These gaps include the lack of comprehensive investigations into the effects of responsibility framing in news coverage within a broader context of mass shootings rather than isolated cases, comparisons between the effects of different content structures in news messages about mass shootings, and the application of experimental methods at the intersection of criminology and media studies to examine psychological proximity to crime and fear of crime in the context of community journalism.

Grounded in the frameworks of Framing Theory, Transportation Theory, and Construal-Level Theory—and set against the backdrop of media digitalization—this study employed a factorial experiment to examine the effects of three attributes of digital news messages about mass shootings: (1) responsibility framing, (2) content structures, and (3) localization in news reporting. The study assessed how these factors influenced audiences' knowledge of and attitudes toward the issue, their stance on issue-related policies, and their civic engagement intentions in community development. Additionally, this study investigated narrative engagement, psychological proximity to crime, fear of crime, and perceptions of news credibility, newsworthiness, and news quality as outcome variables.

Chapter 2. Literature Review

This chapter provides an overview of academic literature relevant to the current study's focus on three attributes of news messages about mass shootings—(1) responsibility framing, (2) content structure, and (3) localization in news reporting (from lower to higher levels: national vs. community news perspective)—specifically, their effects on audience attitudes and behaviors related to the issue. First, the background of mass shootings is introduced to provide context for the study. Second, responsibility framing in news coverage of mass shootings is theorized within Framing Theory, and potential framing effects are hypothesized accordingly. Third, the Transportation Theory is applied to conceptualize narrative and non-narrative content structures and to hypothesize their possible effects. Fourth, the variable of localization in news reporting is theorized using the Construal-Level Theory, and its related influences are hypothesized. The related influences are hypothesized. Throughout the review, hypotheses and research questions regarding the interaction effects of the three message attributes are developed in a logical flow.

2.1. Mass Shootings and Gun Debates in the U.S.

Gun ownership is deeply rooted in the U.S. society and culture and the country's political debates (Cook & Goss, 2014; Schaeffer, 2024). The Second Amendment protects the right to bear arms (U.S. Const. amend. II). In 2023, approximately four in ten U.S. adults reported living in a household with a gun, with 32% stating that they personally own one (Schaeffer, 2024). These figures have remained largely stable since 2021. In the meantime, gun death rates and mass shootings are on the rise (Schaeffer, 2024), becoming a major social issue in America and garnering widespread public attention (LaFree et al., 2015; Li et al., 2023).

2.1.1. Gun Violence: The Rise of Mass Shootings and Deaths

Gun violence has been widely recognized as a significant and escalating societal issue in the U.S. (Pew Research Center [PRC], 2023a). According to the Centers for Disease Control and

Prevention [CDC] statistics, gun violence resulted in the loss of 46,728 lives in 2023, which marks the third-highest recorded number of gun-related deaths in U.S. history (Johns Hopkins Center for Gun Violence Solutions [JHCGVS], 2024). The overall gun death rate dropped by 3% from 2022, equating to 1,476 fewer deaths, but the numbers still reveal the considerable scale of the issue, with close to 47,000 lives claimed by gun violence in just one year.

In this regard, gun violence has ranked prominently among the public's top national concerns (PRC, 2023a, 2024a). Even though people identifying with or leaning toward the Democratic Party and those identifying with or leaning toward the Republican Party differ over whether gun violence is a very big problem in the U.S. (81% vs. 38%), there was an 11% increase from 2022 to 2023 in the proportion of individuals from both parties who say it is a major issue (PRC, 2023a). Additionally, when asked to look ahead, 62% of Americans anticipated that gun violence would increase in the next five years, while 31% expected it to stay roughly the same; only 7% believed it would decline (PRC, 2023a). This disparity highlights that twice as many Americans perceived a rise in gun violence compared to those who expected it to remain steady.

Gun homicide rates have remained high among gun violence cases (CDC, 2024). In 2023, approximately 124 people died from firearm-related violence each day, with nearly four out of every ten deaths being firearm homicides. Compared to 2022, gun homicides decreased by 8.6% in 2023, translating to 1,724 fewer cases (JHCGVS, 2024). However, firearm homicide remains a serious issue in the U.S., claiming approximately 50 lives daily (CDC, 2024). In addition, certain social groups remain disproportionately vulnerable to gun homicides. For instance, Black Americans, Asian Americans, and Black and Hispanic/Latino children and teens continue to experience firearm homicides more than their white counterparts.

Mass shootings, a form of gun homicide, have become a major social issue in America, sparking considerable public concern (LaFree et al., 2015; Li et al., 2023). Although mass shooting incidents account for only a small proportion of all firearm-related deaths, their per-death influence on the number of firearm bills proposed far exceeds that of other homicides (Luca et al., 2020). In the context of growing issue salience, most research has identified an increase in mass shootings in the U.S. (e.g., Cohen et al., 2014; Duwe, 2020; Krouse & Richardson, 2015; Lankford & Silver, 2020; Sanders & Lei, 2018; Smart & Schell, 2021), even if varying definitions of mass shootings and differences in the time frames studied make it challenging to reach a definitive conclusion about how trends of mass shootings have changed over time (Fox & DeLateur, 2014; Gramlich, 2023; Lopez et al., 2020; Smart & Schell, 2021).

There is no single, agreed-upon fatality threshold that classifies an incident as a mass shooting versus other firearm-related violent crimes (Smart & Schell, 2021). Some researchers set the threshold at four fatalities by firearm, excluding the perpetrator(s) (Duwe et al., 2002; Fox & Fridel, 2016; Fox & Levin, 1998; Gius, 2015; Krouse & Richardson, 2015). Some other investigators argue that this approach fails to take into consideration incidents in which fewer than four people were killed, additional individuals were nonlethally injured, and/or fewer than four fatalities caused by gunshots in a homicide, yet with additional fatalities resulting from other causes.

Another disagreement over the definition is whether to include the shooter's motivations as a criterion for classifying an event as a mass shooting. Some analysts define mass shootings as high-fatality, indiscriminate attacks in public spaces, arguing that felony-related shootings—such as those involving domestic and gang violence—are contextually different and therefore should not be counted as mass shootings in their true sense. In other words, while felony-related

shootings also involve multiple victims, they should be addressed distinctly. When investigating mass public shootings, Lott and Landes (2000) excluded felony-related firearm incidents, and Duwe and colleagues (2002) left out cases where both victims and perpetrator(s) were engaged in illegal activities, such as organized crime, gang-related actions, and drug trafficking. Likewise, other studies have confined their analyses to incidents that occurred in relatively public areas, where the victims appeared to have been selected randomly (e.g., Gius, 2015; Luca et al., 2020).

Some investigators, however, reject this definition. They argue that it overlooks a significant portion of gun-related violence, such as family-related or felony-related homicides, which they believe should be classified as mass shootings (Fox & Levin, 2015; Smart & Schell, 2021). They suggested that it would be more comprehensive to classify all cases meeting a specified fatality threshold as mass shootings, regardless of the context of the occurrence or the shooter's motivation. As an example, data sets such as the Mass Shooting Tracker and the Gun Violence Archive have considered both indiscriminate killings and gang-related or crime-related incidents.

These differing definitional choices could substantially affect the range of incidents counted and could increase the potential of measurement error, leading to varied conclusions about the prevalence of mass shootings and shifts in frequency over time (Lopez et al., 2020; Smart & Schell, 2021). Even so, extensive studies have observed a rise in mass shootings in the U.S. (e.g., Cohen et al., 2014; Duwe, 2020; Federal Bureau of Investigation [FBI], 2021, 2024; Krouse & Richardson, 2015; Smart & Schell, 2021; U.S. Department of Homeland Security [DHS]). According to FBI studies on active shooter incidents, the number of active shooting incidents grew at an average annual rate of 13%, while related fatalities rose by 8.52% (FBI,

2021, 2024). Although the definition of active shooter incidents does not include a specific fatality threshold, it shares certain similarities with the definition of mass shootings—especially the definition of mass public shootings. Both incidents are unpredictable and evolve quickly, with victims randomly selected at the crime scene, and law enforcement is often required to resolve those incidents. However, unlike the inconsistent definitions for mass shooting incidents, there is a commonly recognized definition for active shooter incidents. An active shooter incident refers to a situation in which a person is actively engaged in killing or attempting to kill people in a populated, confined space, and typically, the shooter uses firearms and shows no apparent pattern or method for selecting targets (DHS, 2008, p. 2).

Duwe (2020) compiled data from various sources to analyze mass shooting trends, considering both mass non-public and public shootings in which four or more people were killed. He found that between 1976 and 2018, although mass public shootings accounted for approximately 19% of all mass shooting incidents and 27% of all mass shooting fatalities, the frequency and the number of fatalities from mass public shooting incidents increased over the 42 years. Other studies have also observed this trend (e.g., Cohen et al., 2014; Krouse & Richardson, 2015). Moreover, compared to the increase in fatalities, nonfatal injuries showed a sharper increase throughout the studied period (Duwe, 2020).

The selected time frame for analysis could also impact trend assessment, given the presence of outliers in the yearly counts of mass shooting incidents arising from random fluctuations (Fox & DeLateur, 2014). For instance, Krouse and Richardson (2015) discovered a growth trend in mass public shootings between 1999 and 2013, but they explained that the increase was predominantly attributed to incidents in 2012, a year marked by an exceptionally large number of mass public shootings. Lott (2015) argued that the FBI's (2013) finding of a

moderate average annual growth rate in active shooter incidents and fatalities—both exceeding 15—from 2000 to 2013 was primarily due to selecting 2000 as the starting point, a year with an unusually low number of shootings. Lott (2015) conducted his own analysis, extending the time frame back to 1977 and spanning through 2014 while excluding cases with fewer than two fatalities, and found no evidence of an increase. He identified a very small and statistically insignificant increase in mass public shooting fatalities over time—less than 1% annually. Nevertheless, other studies extended the time frame to include more recent years (e.g., 1982–2017, 1976–2018, 1966–2019) and applied a stricter fatality threshold to define mass public shootings (i.e., four or more fatalities), finding a moderate rise in both occurrence and lethality (Duwe, 2020; Lankford & Silver, 2020; Sanders & Lei, 2018).

Despite inconsistent conclusions about mass shooting trends due to varying definitions and time frames used for analyses, media usage of the term "mass shootings" has risen in recent decades, drawing extensive public concern about the mass shooting issue (Elsass et al., 2014; Joslyn & Haider-Markel, 2018; Roeder, 2016; Schildkraut et al., 2017). In this regard, the current study examined the effects of news media coverage of mass shootings on audiences' perceptions of the issue. Specifically, the study focuses on mass public shootings that occur indiscriminately in public places (Duwe, 2020; Krouse & Richardson, 2015). Familicide mass shootings (i.e., incidents in which most victims are the shooter's family members and are unrelated to other criminal activities) and other felony mass shootings (i.e., incidents linked to other criminal activities) are not included in this study. Additionally, the study sets the fatality threshold of four or more people killed, excluding the perpetrator(s). Despite no official standard for the threshold to define a mass shooting incident, it has been a common approach in the literature to apply the

threshold of four fatalities (Duwe, et al., 2002; Fox & Fridel, 2016; Fox & Levin, 2015; Gius, 2015; Krouse & Richardson, 2015; Lopez et al., 2020).

2.1.2. From "Everyone Should Have a Gun" to "Not Everyone Needs a Gun"

Stirred by the increase in gun violence incidents in the U.S. (Carlson, 2021; Cook & Goss, 2014; Masters, 2022; Hansen, 2023), a long-standing debate has existed between pro-gun and gun control positions—ranging from the view that almost everyone should legally own guns to the view that almost no one should legally own guns (Parker et al., 2017). Pro-gun advocates support more relaxed gun regulations, arguing that such laws protect individual freedoms, prevent government overreach, enhance both personal and public safety, and allow citizens to enjoy gun-related entertainment (ABC News, 2016; Hansen, 2023; Lund, 2014; U.S. Const. amend. II; Welna, 2013). 72% of gun owners stated that self-defense is a primary reason for owning a gun, while smaller proportions cited hunting (32%), sport shooting (30%), gun collection (15%), or their jobs (7%) as primary reasons (Schaeffer, 2024).

In contrast, gun control advocates support more stringent laws and regulations regarding the purchase, possession, and use of firearms (ProCon, 2024). They argue that the right to bear arms, like most other rights governed by law, is not absolute. According to the Second Amendment (U.S. Const. amend. II), the right is protected for a "well-regulated militia," not for the general public (*District of Columbia et al. v. Heller*, 2008). In addition, they maintain that the presence of a firearm could increase the likelihood of a conflict escalating into violence. Accordingly, they hold that stricter gun control laws could help reduce gun-related violence and deaths.

The U.S. public remains evenly divided over whether gun ownership does more to increase or decrease safety. According to the results of a survey by PRC (2023a), among 5,115

members of their nationally representative American Trends Panel, 49% believed gun ownership would increase safety if responsible citizens were allowed to use guns to protect themselves, while the same portion argued that gun ownership would decrease safety if too many individuals had access to and misused firearms. In terms of gun laws, 58% stated that regulations should be more restrictive, 26% believed the regulations are appropriate, and 15% felt the regulations should be looser. Moreover, 61% perceived that it is too easy to obtain a gun in the U.S., 9% thought it is too hard, and 30% felt it is about right (Schaeffer, 2024).

Furthermore, the gun debate has increasingly become a more polarizing issue in the U.S., particularly concerning public safety. Republicans and Democrats were found deeply divided on the effect of gun ownership on public security. Seventy-nine percent of Republicans and Republican-leaning independents believed that gun ownership would enhance public safety, while a similar proportion (78%) of Democrats and Democratic-leaning independents argued that it would reduce safety (PRC, 2023a). Individuals living in rural areas (65%) and urban areas (34%) were also sharply divided on this issue. In addition, gun owners are nearly twice as likely to believe that owning a gun improves public safety, compared to those who don't own guns (71% vs. 37%).

Concerns about gun violence—particularly mass shootings—and public safety have intensified national debates over gun policies in the U.S. (Yousaf, 2021; Yousif, 2023). Understanding the mechanisms driving polarized gun debates is therefore crucial for balancing public safety with constitutional rights, as well as mitigating political polarization (Le Bars, 2024; Lopez et al., 2020). The current study seeks to explore gun debates and mass public shooting violence in the U.S. through the lens of media sociology. It examined not only audience

perceptions of the mass shooting issue but also their attitudes toward gun policies as influenced by exposure to news reporting on the topic.

2.2. Media Coverage and Mass Shooting Issue

As discussed, mass shootings are widely regarded as a social issue requiring resolution, drawing extensive media coverage due to their tragic, traumatic, and shocking nature (Duwe, 2000; Elsass et al., 2014; Joslyn & Haider-Markel, 2018; LaFree et al., 2015; Schildkraut et al., 2017). Roeder (2016) searched Nexis and the Google Books Ngram Viewer for every mention of the term "mass shooting(s)," identifying a surge in its prominent use in U.S. newspapers, newswires, and American English-language books in recent years. The term was not always as commonly used by the media as it is today, and its frequency has increased at a pace exceeding that of the actual occurrence of mass shootings.

Concerned by the media's intense interest in mass shootings, previous studies have examined the effects of media coverage on these incidents, revealing its impact on public reactions to the issue and potential gun policy changes (e.g., Haider-Markel & Joslyn, 2001; Luca et al., 2020; McGinty et al., 2013; Schildkraut & Elsass, 2016; Wilson et al., 2016). Luca and colleagues (2020) found that mass shootings drove an increase in firearm-related media coverage, with incidents involving higher fatalities receiving greater attention. Furthermore, the rise in mass shooting-related news coverage was associated with heightened legislative activity, as reflected in the introduction of gun-related bills in state legislatures. Based on their findings, Luca and colleagues (2020) demonstrated a shift in media and public attention toward gun violence after mass shootings—a plausible mechanism behind the increased gun-related legislative activity observed in the year following such incidents.

Porfiri and colleagues (2019) also identified similar media effects on public reactions and policy changes in response to mass shootings. Their study provided empirical evidence that, following a mass shooting, media coverage of gun control regulations could heighten public concerns about impending stricter restrictions on firearm access. These concerns could drive people to purchase firearms before such legislation was enacted, potentially leading to a rise in firearm prevalence. Public concerns about stricter firearm control were also evidenced in Porfiri and colleagues' (2019) study. They found that these concerns grew alongside the rise in background checks and the increase in mass shootings, both of which were associated with heightened media attention on gun regulation topics. Likewise, McGinty and colleagues (2013) found that viewing news stories about mass shootings increased individuals' support for gun control measures specifically targeting groups of individuals with mental illnesses and prohibiting high-capacity magazines. This outcome was further explained by their finding that audiences were more likely to hold negative attitudes toward mentally ill persons after exposure to news messages about mass shootings.

Regarding media's role in the relationship between mass shooting violence and mental illness, Wilson and colleagues (2016) suggested that most news articles about mass shootings—even those that do not mention mental illness or include expert information—may negatively influence participants' attitudes toward individuals with mental illness. This effect could be explained by respondents' prior exposure to news stories associating mass shooting violence with mental illness, which could encourage them to assume that mass shooters have mental health problems contributing to their violent behavior (Wilson et al., 2016). Other related studies also reported consistent findings that media descriptions tended to perpetuate stereotypes linking mental illness to dangerousness, stigmatize individuals with mental illness, and foster

unreasonable assumptions about the capability of mental health services to address the mass shooting issue (Kambam et al., 2020; Metzl et al., 2021).

In this regard, media portrayals of mass shootings have a leaning toward blaming the mental health system for its failure to identify problems early and offer proper treatment to individuals whose psychological conditions may be linked to mass shootings. Research has observed that media coverage often presents causes of mass violence in overly simplistic (Muschert, 2010) and sometimes misleading (Schildkraut & Muschert, 2014) ways, with mental health frequently falling into this pattern of portrayal. In reality, the factors behind such violence are far more complex (Muschert, 2010). Although the mental health of perpetrators can be relevant in some cases, the rarity of mass shootings despite the widespread prevalence of common mental disorders illustrates that such conditions alone cannot account for these events (Shultz et al., 2014).

To further explore the effects of media coverage on the mass shooting issue in an era of increasing media digitalization, the current research conducted a multifactor experiment to examine certain news message attributes that remain important in contemporary online journalism, including: (1) responsibility framing (individual-level vs. structural-level attributions), (2) content structures in reporting (narrative vs. non-narrative), and (3) localization in news reporting (from lower to higher levels: national vs. community news perspective). Unlike previous studies focusing on specific attitudinal or behavioral reactions, the current research examined the effects of these message attributes on audiences' higher-order reactions, which encompass more abstract, integrative, downstream attitudinal and behavioral orientations that organize multiple attitudes and behaviors into a coherent way of understanding and responding to the issue.

These higher-order reactions include: (1) knowledge about the issue—either on the individual level (i.e., related to individuals' deficiencies, such as mental illness, or personal grievances or vendettas) or the structural level (i.e., related to policy defects such as loose gun regulations and systemic inequality), (2) attitudes toward relevant solutions, including support for pro-gun versus gun control policies, improvements in mental healthcare, the placement of armed resource officers, and policies addressing social disorganization and economic deprivation, and (3) civic engagement intentions in community development the solutions that audiences endorse. This study also investigated other specific responses to the covered issue, including psychological proximity to crime, fear of crime, and perceived news credibility, newsworthiness, and news quality, as potential mediating factors in the process of framing effects.

2.2.1. News Framing Effects on Understanding the Mass Shooting Issue

News Framing Effects. Within the framing effects literature, Nelson and colleagues' (1997) research, one of the most impactful and extensively cited studies, theoretically and empirically contributed to news framing impacts. In their study, one group of participants read a local news story that framed a planned Ku Klux Klan (KKK) rally as a free-speech issue, while another group read a story that framed the rally as a public order disruption. The researchers found that participants exposed to the free-speech-issue frame were more tolerant toward KKK, compared to those who read the public-order-disruption frame. Many other relevant studies, including recent ones, have identified news and media framing effects across various domains, such as environmental issues, social issues, public health, nutrition and food, and political communication (e.g., Amsalem & Zoizner, 2020; Bryant & Dillard, 2019; Edwards & Arnon,

2021; Gallagher & Updegraff, 2012; Mendelsohn et al., 2021; Ophir et al., 2021; Whitmarsh et al., 2019; Zeng et al., 2024).

According to research on media framing effects, various news frames could influence how recipients differently understand an issue or event being covered (Lecheler & de Vreese, 2019). In this sense, the frames selected by journalists when producing news could shape how citizens perceive and think about the issue or event described. So, what constitutes a frame? Goffman (1974) took the starting point for defining frames within the sociological tradition. He described frames as useful tools that help humans assign meaning to the external world across various everyday situations. Entman (1993) and Gamson and Modigliani (1987) then expanded on this concept and applied it to mass and news media studies.

Gamson and Modigliani (1987) defined news frames as a core organizing principle or storytelling perspective that brings coherence to a sequence of events, connecting them in a meaningful way. According to their definition, a frame could suggest the controversy surrounding an issue or event while capturing its essence. However, this definition primarily applies to narrative news articles, as narratives typically involve sequences of events connected meaningfully, thereby not including non-narrative ones (González Rodríguez, 2004; Ecker et al., 2020).

Entman (1993) further developed the definition of (news) frames to make it widely applicable across various contexts. This refined definition contributed to the broader acceptance of Framing Theory, which describes framing as a process of selection and emphasis that makes certain aspects of a communication subject more salient. In this sense, (news) frames refer to the presence or absence of specific keywords, recurring phrases, stereotyped portrayals, cited sources, and statements that reinforce consistent themes in the presentation of facts,

interpretations, and evaluations. By emphasizing certain aspects of an issue while downplaying others (Entman, 1993; Fiske & Taylor, 1991), frames could enhance the visibility, significance, and retention of specific information for audiences (Entman, 1993). Similarly, what is left out—related problems, interpretations, evaluations, and recommendations—could be just as important as what is included in influencing audiences' perceptions. The presence of frames reflects journalists' active role in shaping news coverage, a proactive role that Entman (1993, 2004) recognized. He elaborated on the creation and application of news frames—known as news framing—as a crucial process through which government officials and journalists exert political influence on one another and the public.

As such, news framing represents the process through which media and journalism exercise their agency in reporting political, economic, and social issues. This agency could have consequential media effects, serving as a plausible outcome of the news framing process (Lecheler & de Vreese, 2019). To best explore framing effects, Lecheler and de Vreese (2019) suggested considering a broader framing process—the mechanism that constructs frames triggering potential effects. Hence, analyzing framing effects could be a part of this broader framing process (de Vreese, 2003). Simply put, understanding where frames originate could enhance the comprehension of framing effects.

News Framing as a Dynamic Process. To comprehensively understand framing effects and effectively conduct relevant studies, it is crucial to emphasize news framing as a dynamic process (de Vreese, 2005; Matthes, 2012; Scheufele, 1999). In this process, a schema or knowledge structure is activated and applied by journalists during the construction of news stories (Dunwoody, 1992; Matthes, 2010). Entman (1993) explained that frames operate across multiple dimensions, including the communicator, the message, the audience, and the broader

cultural context. These dimensions illustrate framing as a dynamic process that unfolds through different stages: frame building, frame setting, and the consequences of framing (D'Angelo, 2002; de Vreese, 2005; Hänggli, 2012; Matthes, 2012; Scheufele, 1999).

Frame building involves interactions among various actors regarding how an issue is framed and how it is then framed in news stories (D'Angelo, 2002; de Vreese, 2002; Scheufele, 2000). This phase of the framing process could be influenced by forces both internal and external to the newsroom or news organizations. Internal forces include aspects such as the newsroom's or news organization's editorial guidelines, journalistic values, and political orientation—those influencing journalists' routines—as well as journalists' role orientations (i.e., professional attitudes and values; Donsbach, 2004; de Vreese, 2005; Mellado et al., 2017; Scherr et al., 2017; van Dalen et al., 2012). The impacts of these forces could be reflected in news content (Lecheler & de Vreese, 2019). External forces include factors such as political elites, social movements, and public interest groups (Lecheler & de Vreese, 2019). Their influence would become visible, for instance, when journalists incorporate excerpts from political speeches or brief sound bites to illustrate an issue.

The current research examined the interactions among the aforementioned actors indirectly rather than directly. It employed an experimental design to test the effects of different types of news frames—which could reflect the interactions between these actors—on audience responses to the issue being covered. These frames serve as an experimental factor manipulated in the stimuli, which are fictional news messages. These fictional news messages were designed to resemble real-world news content. Accordingly, the manipulated news frames reflected actual news framing, which emerges from practical interactions among various forces.

Frame setting describes the dynamic interplay between news frames and individuals' prior knowledge and tendency (D'Angelo, 2002; de Vreese, 2002; Scheufele, 2000). News frames could influence how audiences learn, interpret, and evaluate an issue or event. This stage of the framing process is often examined to understand the extent to which, and under what circumstances, audiences would adopt frames presented in the news articles they are exposed to. The current study included the measure of individuals' political predispositions in the collection of demographic and background variable. This variable would be treated as a covariate and controlled for in the analysis if it differed significantly across the experimental conditions, in order to isolate the effects of responsibility framing on the outcome variables of interest in the present study (e.g., assigning responsibility attributions for mass shooting violence) by reducing noise and potential confounding. More details are provided in the Methodology chapter.

The consequences of framing can occur on the individual and societal levels (D'Angelo, 2002; de Vreese, 2002; Scheufele, 2000). On the individual level, news frames may influence individuals' attitudes toward an issue and related policies; on the societal level, frames could shape systemic processes such as political socialization and policymaking. The present researcher is interested in how frames constructed in news coverage of mass shootings may be associated with individual-level framing consequences, including changes in attitudes toward the issue and related policies, civic engagement intentions in community development, psychological proximity to crime, fear of crime, and perceived news credibility, newsworthiness, and news quality.

Responsibility Framing in News Coverage. When examining the effects of frames in news coverage of mass shootings, the present researcher specifically focuses on a type of news frame—responsibility framing—which assigns responsibility to certain factors as the primary

causes of and solutions to the issue (Entman, 1993; Iyengar, 1991). In standard representative democracies, citizens should have the ability to hold governmental agencies accountable for policy outcomes within their jurisdiction (Rudolph, 2006). This requires citizens to accurately identify who is primarily responsible for certain policies and relevant problems. Therefore, proper responsibility attributions are considered important for democratic accountability (Arceneaux, 2005; Iyengar, 1991). To learn political knowledge about issues' responsibility attributions, citizens need to overcome barriers to accessing information—barriers imposed by governmental structures, bureaucratic complexity, and/or lack of transparency (León et al., 2018). In this setting, news media serve as one of the primary channels for citizens to gain information about complex and conflicting issues that involve multileveled responsibility attributions (Cutler, 2004).

As suggested by Framing Theory, media tend to package these complicated and conflicting issues in a way that is easy for audiences to understand. In the current study, this applies to responsibility attributions for these issues (Goldberg et al., 2022; S.-H. Kim et al., 2010). Responsibility attributions have been regarded as a kind of social knowledge (Iyengar, 1989, 1991) or social attitude (Brownell et al., 2009) that may influence individuals' issue opinions, political attitudes, and political behaviors. When framing an issue, news media tend to directly or implicitly convey this type of social knowledge or attitude by indicating what the issue is, who or what the main cause is, and/or what the primary solution is (Entman, 1993; Iyengar, 1991).

These suggested elements mirror key dimensions in responsibility framing (Entman, 1993): defining the issue, assigning causal responsibility, making moral judgments, and attributing treatment responsibility (i.e., recommending solutions). The present study primarily

examined responsibility framing in news coverage, which encompasses issue definition and moral evaluation that implicitly assign causal and treatment responsibility attributions for the issue (Chattoo et al., 2021; Iyengar, 1996; S.-H. Kim, 2015; S.-H. Kim et al., 2010). For example, when a news message explains the primary causes and solutions of an issue, it defines the issue and signals who or what is right or wrong, as well as what is fair or unjust.

The responsibility attributions for social problems have been debated from two opposing perspectives (Ryan, 1973; Wikler, 2002). One perspective emphasizes individual-level causes and solutions, arguing that social issues primarily result from personal flaws or deficiencies. In this view, individuals with these shortcomings are more likely to be affected by the problem. Consequently, solutions focus on modifying problematic individual behaviors and attitudes, aligning with the notion of individual-level treatment responsibility. Conversely, the structural-level perspective attributes social problems to broader systemic failures. From this angle, issues arise largely due to policy shortcomings or structural deficiencies in society, such as the unequal distribution of economic resources, unethical corporate practices, or unsafe social conditions. Accordingly, solutions involve institutional and policy-level interventions, including improved government regulations and corporate reforms.

Situating the definitions of the two levels of responsibility attributions within the context of the present study, on the individual level, the mass shooting issue would be framed as stemming from personal deficiencies, such as mental health disorders or unresolved personal grievances or vendettas (Holody & Shaughnessy, 2022; Hansen, 2023; Pyne, 2017; Schnell & Callaghan, 2005). Suggested preventive measures focus on directly modifying problematic individual behaviors and attitudes or implementing immediate interventions to manage a perpetrator's actions. Examples include expanding mental health services, deploying armed

resource officers in key locations, and loosening gun restrictions to allow citizens to protect themselves with firearms in public areas. On the structural level, however, the issue would be framed as a result of policy failures including lax firearm regulations, legislative loopholes, and systemic social inequities (Cook & Goss, 2014; Carlson, 2021; Dancy et al., 2019; Ghio et al., 2023; McMillan & Bernstein, 2022; Merry, 2023; Pfaffendorf & Davis, 2021; Schaeffer, 2024). From this perspective, addressing the issue requires strengthening gun control measures and enacting broader social justice reforms to tackle the underlying causes of violence.

News Media's Preference for Individual-Level Responsibility Attributions. In general, social problems are inherently political, requiring negotiation and compromise among competing groups (Hilgartner & Bosk, 1988). Defining responsibility is essential amid these groups' conflicting interests, as it could ultimately determine which stakeholders—such as governments, industries, individual citizens, or social groups—are held accountable for resolving the issue (S.-H. Kim & Willis, 2007). While both individual- and structural-level responsibility attributions could contribute to understanding and addressing social issues (Sampson, 2019), structural-level attributions are arguably more effective for problem-solving, given the deep political and systemic roots of these issues (Haslanger, 2022). However, news media often simplify these issues by framing them on the individual level rather than the structural level and by focusing on specific incidents instead of broader systemic patterns (McDonald & Charlesworth, 2013; Thakker & Durrant, 2006; Weatherred, 2015, 2017).

This tendency places responsibility on personal behaviors, lifestyle choices, and other individual factors as the primary causes of social problems including crisis events—such as natural disasters, organizational misdeed, and technical error accidents—and social and political issues—including housing security and homelessness, poverty, sexual violence, and public

health problems (e.g., An & Gower, 2009; Chattoo et al., 2021; Day et al., 2004; de Vreese, 2005; Iyengar, 1991; S.-H. Kim et al., 2010; Mastin et al., 2007; Noetzel et al., 2023). In this situation, structural-level responsibility tends to be overlooked, while individual-level factors and solutions tend to be disproportionately emphasized in media.

Individual-level responsibility attributions are mainly presented in two ways: victim blame and perpetrator blame (e.g., Chattoo et al., 2021; Dyer et al., 2022; Noetzel et al., 2023). When framing certain issues on the individual level, victims are often blamed for causing the problems themselves. For example, news media have been found to frame homelessness by emphasizing victims' personal shortcomings or moral failings, such as a lack of work ethic, substance addiction, or involvement in criminal activity (Bezusko, 2013; Chattoo et al., 2021; Clawson & Trice, 2000; Gans, 1995). On the other hand, when framing other issues on the individual level, perpetrators are blamed. For instance, in the case of sexual violence, news media have been found to shift from victim blame to perpetrator blame by describing the perpetrators' actions as criminal, unethical, and unjustifiable, contextualizing their history of abusive behavior, and interpreting these actions as part of an ongoing pattern of misconduct (Franiuk et al., 2008; Franklin et al., 2015).

For mass shooting violence, as discussed above, within the individual-level frame, perpetrators are often blamed for their mental illness. This framing could stigmatize individuals with mental illness and encourage unrealistic expectations regarding the capacity of mental health services to address the issue of mass shootings (Kambam et al., 2020; Metzl et al., 2021). Although perpetrator blame may appear more constructive for understanding social issues than victim blame, a perpetrator-focused approach could reinforce the individualization of these issues (Berns, 1999, 2001, 2010). from the broader reality that social issues are systemic rather

than incidental, thereby perpetuating a culture that overlooks the necessity for comprehensive societal change (Benedict, 1993; Cuklanz, 1995, 2000, 2020; Meyers, 1997, 2004).

Nonetheless, some research has reported opposite findings regarding the media's focus on individual-level versus structural-level responsibility. For example, Temmann and colleagues (2022) conducted a systematic review of relevant studies in the health context, published between 2004 and 2019, which employed various methodologies. According to their content analyses, media outlets—such as journalistic texts, press releases, and user-generated content—tended to assign health responsibility primarily, though not exclusively, to individuals. This contrasting trend could be explained by cultural context and the characteristics of the communicators (Temmann et al., 2022).

In Temmann and colleagues' (2022) content analyses, studies that identified a structural-level tendency in media storytelling were conducted in non-Western settings, such as India and China. This suggests that media outlets in collectivist societies, as opposed to individualist ones, may be more likely to adopt a collective perspective when when attributing responsibility for public health (Temmann et al., 2022). Additionally, varying responsibility attributions were identified across different types of media outlets, indicating that communicators may play a role in how responsibility is assigned. Specifically, individual attributions were notably predominant in news media; structural-level responsibility was more frequently emphasized in press releases issued by health associations; and relatively fewer individual attributions were found in user-generated content on social networking platforms such as Pinterest and YouTube. Likewise, journalistic texts addressing the issue of mass shootings have also been found to emphasize individual attributions—a trend that is of interest in the current study, as demonstrated hereafter.

Structural Roots of the Mass Shooting Issue. Mass shootings, as a form of gun violence, have also been deeply ingrained in the structural conditions of the U.S. (e.g., Carlson, 2021; Cook & Goss, 2014; Dancy et al., 2019; Ghio et al., 2023; McMillan & Bernstein, 2022; Merry, 2023; Pfaffendorf & Davis, 2021; Schaeffer, 2024; U.S. Const. amend. II). One important premise of gun violence is the presence of gun ownership. The data on gun injuries and fatalities in the U.S. may fluctuate, yet overall levels are expected to remain substantial, in part due to the vast number of guns in circulation across the country (Merry, 2023). According to Ingraham's (2018) study, there were an estimated 393 million guns in the U.S., equating to about 120.5 firearms for every 100 residents, which represents the highest civilian firearm ownership rate in the world. Given the surge in gun purchases that began during the pandemic in 2020, that figure is likely an underestimate (Merry, 2023).

The history of gun ownership and related legislation in the U.S. dates back to colonial America. Relevant laws have legitimized gun ownership by civilians for purposes such as hunting, target shooting, self-defense, and combating tyranny, as well as by police, military, and private security personnel in the execution of their professional duties (e.g., U.S. Const. amend. II; U.S. Const. amend. IV; U.S. Const. art. I, § 8). Specifically, with regard to civilian use of guns for self-defense, a key structural factor is the concern over ineffective or absent public protection systems (i.e., 911, the police; Cook & Goss, 2014).

Beyond the legal origin, gun ownership is deeply embedded within a broader U.S. cultural framework that emphasizes individualism, personal freedom, civic responsibility, patriotism, and self-reliance (Carlson, 2015; Cook & Goss, 2014; Melzer, 2009; Schwartz, 2022; Warner & Ratcliff, 2021). Historically, firearms have been linked to the American ideal of rugged individualism and the protection of personal liberty, a narrative reinforced by

interpretations against government overreach and tyranny (Carlson, 2015; Cook & Goss, 2014). Thus, gun ownership, as a powerful cultural symbol, has come to represent autonomy and citizenship, closely tied to broader notions of freedom and personal agency.

Given the long history of gun rights, regulations, and related cultural values, no other country possesses as many firearms or ties them as closely to personal identity and cultural meaning as the U.S.—an association that contributes to patterns of gun violence (Cook & Goss, 2014). Nearly all firearms used in crimes begin their path with a sale by a licensed dealer (Cook & Goss, 2014). Put another way, the initial sale or purchase is only the beginning of the firearm's journey before it ends up in criminal hands.

Structural racism has been identified as another systemic cause of the mass shooting issue in the U.S. (Butts et al., 2015; Carlson, 2021; Ghio et al., 2023; Kendi, 2016). Ghio and colleagues (2023) found that racial segregation was associated with the occurrence of mass shootings, with Black persons and children living in single-parent families being more vulnerable to these incidents. They also discovered that the proportion of the metropolitan statistical area population made up of Black individuals was associated with mass shooting incidents. Structural racism is also evident in the centrality of the U.S. criminal justice system, which, rather than addressing the root causes of crime, emphasizes individual criminality and further marginalizes racially segregated communities that are at greatest risk of gun violence (Carlson, 2021). This racialized system reproduces racial inequality as a structural driver of criminal activity (Butts et al., 2015; Kendi, 2016).

On a higher societal level, mass shooting violence has its roots in social disorganization and economic deprivation. It has been empirically and theoretically demonstrated that crime is influenced more by the dynamics of the neighborhoods where individuals live than by the

personal characteristics of those who commit these crimes (e.g., Fridel, 2022; Pratt & Cullen, 2005; Sampson, 1987; Sampson & Groves, 1989; Shaw & McKay, 1972; Tcherni, 2011). In neighborhoods marked by concentrated disadvantages—such as high unemployment, poverty, residential instability, and family disruption—as well as notable racial and ethnic diversity, conventional institutions like schools, churches, and families are often weakened and struggle to regulate residents' behavior (Sampson & Groves, 1989; Pratt & Cullen, 2005). As a result, such neighborhoods are frequently viewed as environments that breed crime. This situation stems largely from systemic disinvestment in communities disproportionately affected by gun violence (Carlson, 2021).

Three primary social disorganization forces strongly associated with homicide rates are (1) the intersection of poverty and low levels of education, (2) family disruption, and (3) racial composition (Pratt & Cullen, 2005; Tcherni, 2011). In line with these findings, Fridel (2022) identified a pattern in which areas with pronounced concentrated disadvantage and racial/ethnic heterogeneity experienced increased rates of homicides and mass shootings. Racial disparities in violent crime rates are mirrored in the structural racism of the U.S., as discussed before, where social and economic circumstances in Black neighborhoods are generally more disadvantaged than those in white communities. In essence, structural racism, along with the racialized cultural meaning systems that perpetuate it, and their influence on racially marginalized communities, underlie the problem of gun violence (Bernstein et al. 2019; McMillan & Bernstein, 2022).

Economic deprivation, an underlying cause of social disorganization, is considered another macro-level factor related to higher crime rates (Stroebe et al., 2024). How institutions classify individuals could impact their access to resources and, in turn, may influence their life opportunities (Armstrong & Bernstein, 2008). Individuals situated at the lower end of the

distribution may experience frustration and anger, which could sometimes trigger violence (Blau & Blau, 1982). Consistent findings support this argument, demonstrating a positive relationship between poverty and homicide rates over time, across various analytical levels, measures of poverty, research designs—both cross-sectional and longitudinal—and different model and relationship specifications (Pridemore, 2002, 2008, 2011).

Structural Responses to the Mass Shooting Issue. Given the structural roots of mass shootings in the U.S., including its enduring history of gun ownership, legal frameworks, politics, and social culture, The structural-level perspective should offer more effective solutions than one focused solely on individuals (Carlson, 2021; Cook & Goss, 2014; Dancy et al., 2019; Ghio et al., 2023; McMillan & Bernstein, 2022; Merry, 2023; Pfaffendorf & Davis, 2021; Schaeffer, 2024; U.S. Const. amend. II). There have been increasing calls for the federal government to adopt more effective strategies for addressing gun violence (Dancy et al., 2019). Human rights institutions in the world have been arguing that the U.S. government does not adequately hold its obligation to safeguard its citizens' fundamental rights to life and security (Dancy et al., 2019). One major debate over how to most effectively address gun violence in the U.S. centers on two competing issue positions—pro-gun versus gun control (Parker et al., 2017; ProCon, 2025). This debate has grown more intense alongside the rise in gun violence incidents (Carlson, 2021; Cook & Goss, 2014; Masters, 2022; Hansen, 2023).

Pro-gun advocates call for less strict gun regulations to allow law-abiding citizens to protect themselves from gun violence; in turn, perpetrators may be less likely to commit violence if they believe potential victims are armed (Hansen, 2023; ProCon, 2025). In contrast, gun control proponents uphold stricter gun laws, including background checks, bans on particularly lethal firearms, and risk protection orders—orders that allow authorities to temporarily remove

guns from individuals considered likely to harm themselves or others (McMillan & Bernstein, 2022; ProCon, 2025). Gun control proponents also seek to motivate the gun industry to introduce smart gun technology and other firearm safety innovations to the market.

Nonetheless, not all policies operate on the structural level. Compared to gun control policies, pro-gun policies tend to focus more on the individual level, as they emphasize direct, real-time interventions aimed at the shooter's criminal behavior and seek to deter individual criminal motives by increasing the perceived risk that potential victims may be armed (Hansen, 2023; ProCon, 2025). Gun control policies reflect a reform-oriented logic grounded in state-directed activism (McMillan & Bernstein, 2022). This approach seeks to mobilize voters to support gun control measures and to challenge politicians perceived as closely aligned with influential advocacy groups in U.S. politics—for example, the National Rifle Association (McMillan & Bernstein, 2022; NRA). From this perspective, the state and corporations are seen as the primary power holders.

While gun control legislation aims to reduce gun violence, pro-gun laws largely reflect political, economic, and cultural interests (Dancy et al., 2019). Dancy and colleagues found that pro-gun legislation showed a stronger partisan alignment, compared to gun control legislation. Specifically, their analysis demonstrated a positive association between Republican Party affiliation and the likelihood of sponsoring or introducing pro-gun legislation. However, they found no association between Democratic Party affiliation and either sponsoring gun control legislation or strongly opposing pro-gun laws. In this sense, Democratic affiliation does not predict support for introducing any type of gun-related legislation. Moreover, Dancy and colleagues (2019) discovered that, rather than emerging frequently in high-crime districts, pro-gun legislation is more commonly introduced in areas characterized by rural demographics,

predominantly white populations, and active firearm commerce. Therefore, pro-gun legislation appears less focused than gun control legislation on addressing the root causes of gun violence, including mass shootings.

Even though gun control strategies are relatively more effective than pro-gun measures at structurally addressing gun violence, both sides of the gun debate, in effect, share a common commitment to the criminal justice system (Kendi, 2016). While both sides claim to best serve the interests of people of color and label the other as racist, their agendas ultimately conspire with structures that perpetuate racial inequality, such as the criminal justice system and its underlying logic (Carlson, 2021). These structures shape perceptions that associate criminality and blameworthiness with people of color, while linking innocence and impunity to white individuals. Viewed this way, labeling one side as racist often does more to ease white discomfort than to challenge racism itself (DiAngelo, 2018). Hence, it is crucial to reconsider both the mass shooting issue and the responses to it without turning to the criminal justice system—and instead center approaches grounded in social and economic justice (Carlson, 2021).

In this regard, gun legislation alone is insufficient to eradicate gun violence—including mass shootings—as it overlooks the complex, multisystemic, and multi-institutional dynamics of antiviolence efforts (McMillan & Bernstein, 2022). The trajectory of one issue is closely linked to that of other issues competing for public and political attention (Hilgartner & Bosk, 1988, as cited in Merry, 2023, p. 433). From this perspective, the mass shooting issue, as previously discussed, is closely linked not only to gun violence but also to broader concerns—including the dominant U.S. cultural framework (such as individualism, autonomy and citizenship, personal freedom, and self-reliance), structural discrimination, social disorganization, and economic deprivation. Although recent gun regulations may restrict access for some individuals with

harmful intent, their impact could be marginal if they fail to disrupt the mutually reinforcing systems of political authority, institutional hierarchy, and cultural hegemony (Merry, 2023). Therefore, more robust, structural-level solutions are needed—ones that emphasize broader social change rather than merely policy reform.

Previous scholarship has demonstrated the importance of more robust, structural-level solutions (e.g., Bernstein et al., 2019; Davis & Rodriguez, 2000; Ghio et al., 2023; Gilmore & Kilgore, 2019; Kaba, 2020). In the context of their findings on the association between structural racism and mass shootings, Ghio and colleagues (2023) recommended addressing the underlying structural racism linked to gun violence as a necessary step in prevention. Similarly, Bernstein and colleagues (2019) emphasized the need to disrupt racialized cultural meaning systems that marginalize and dehumanize Black and Brown lives. To confront structural racism, Davis and Rodriguez (2000) argued that prisons and other punitive aspects of the criminal justice system should not remain the dominant approach to addressing social issues that could be more effectively handled by alternative institutions and strategies. This vision is not simply about shutting down police departments but about rendering them unnecessary (Kaba, 2020). The idea of a world without prisons and jails is inseparable from the vision of a society in which social welfare is recognized as a fundamental right rather than a luxury (Gilmore & Kilgore, 2019).

In addition to addressing racial discrimination, some scholars have explored responses to social disorganization and economic deprivation (e.g., Bridges, 2021; Bridges & Tober, 2019; Carlson, 2021; Kaba, 2020; McMillan & Bernstein, 2022). They recommended increasing the inclusion of other historically marginalized groups—such as people with disabilities, women, LGBTQ+ individuals, Indigenous peoples, and those from low socioeconomic backgrounds—and mobilizing against the structural inequalities that sustain their exclusion (e.g., Bridges, 2021;

Bridges & Tober, 2019). To better support the efforts of these groups, it is critical to recognize the multisystem logic underlying the complex interplay between power, culture, economic conditions, and social transformation (McMillan & Bernstein, 2022).

In this context, a different society would take shape through cooperation over individualism, and mutual aid over self-preservation, offering an alternative framework for how safety and justice are conceived (Carlson, 2021; Kaba, 2020). Building social safety nets—where programs and policies are designed to provide a crucial support system by protecting individuals and families from economic hardship, poverty, and inequality—serves as an example of this vision of a different society (McMillan & Bernstein, 2022). In the same vein, Carlson (2021) suggested that policymakers prioritize reinvestment in historically marginalized communities most affected by gun violence, addressing structural inequalities through sustained funding for education, health care, housing, and community-based safety initiatives.

Taken together, responses to structural racism, social disorganization, and economic deprivation have most commonly emphasized eliminating economic and social inequities rooted in institutional racism and segregation, along with promoting community accountability in addressing gun violence—sometimes through strengthened relationships with law enforcement to reduce violence in racially marginalized communities (McMillan & Bernstein, 2022). These broader structural-level strategies have the potential to challenge mainstream understandings of safety and justice, thereby prompting social change (Carlson, 2021; McMillan & Bernstein, 2022).

The News Media's Bias in Framing Mass Shootings as Individual Failures. Despite the importance of understanding social problems through structural-level responsibility, prior research has shown that news media tend to highlight the individual-level aspects of mass

shootings more prominently than their structural dimensions (e.g., McGinty et al., 2013; Pyne, 2017; Schildkraut, 2016; Schildkraut et al., 2017; Schildkraut et al., 2021; Wilson et al., 2016). Following mass shootings, the public is often inundated with news coverage that portrays the shooter as mentally ill, accompanied by detailed accounts of their background, actions during the incident, and/or personal grievances or vendettas (McGinty et al., 2013; Schildkraut et al., 2021; Wilson et al., 2016). In some cases, media outlets go further by disproportionately highlighting the shooter's religious identity and suggesting its relevance to the shooting—reflecting underlying assumptions of religious bias in American society and culture (Pyne, 2017). Accordingly, the mass shooting problem is most frequently defined—implicitly—by the shooters themselves through news coverage (Schildkraut, 2016). Media attention that prioritizes perpetrators over victims or structural causes tends to emphasize the crime's deviant aspect, making the news more sensational and attention-grabbing (Cerulo, 1998).

News media's focus on individual-level responsibility is also reflected in editorial decisions about the perceived newsworthiness of mass shooting events. (Schildkraut et al., 2017). Schildkraut and colleagues (2017) found that the race or ethnicity of the perpetrator and the number of victims were strong predictors of media coverage. Mass shootings involving perpetrators of Asian or other minority backgrounds, as well as incidents with higher victim counts, received more extensive coverage. Although victims partially explain whether a mass shooting is deemed newsworthy, they are often reduced to a statistic or a job title, leaving their identities ambiguous (Schildkraut, 2016). This ambiguity reflects a broader lack of clarity regarding how mass shootings are defined (Best, 1987). Furthermore, the news media's tendency to emphasize victim tallies reflects a broader neglect of national data that could situate such incidents within the context of systemic violence (Schildkraut, 2016; Schildkraut et al., 2021).

In line with these individual-level causal attributions, news media tend to explicitly or implicitly recommend solutions aimed at directly modifying problematic individual behaviors and attitudes or implementing immediate interventions to control the actions of the perpetrator—such as improving mental healthcare, enacting pro-gun legislation, or placing armed resource officers (Hansen, 2023; LaRose et al., 2022; McGinty et al., 2014; Metzl & MacLeish, 2015; J. R. Silva, 2020).

The Effects of Responsibility Framing in News Coverage. As stated, the present study examined the effects of responsibility framing in news coverage on how audiences perceive the mass shooting issue—specifically, the level on which they understand its primary causes and solutions. On the individual level, the issue is viewed as stemming from the shooter's personal flaws, such as mental illness, or personal grievances or vendettas, which are commonly addressed through pro-gun policies, improvements in mental healthcare, and the placement of armed resource officers. On the structural level, the issue is considered to be triggered by policy failures, such as weak gun regulations and systemic inequality, which could be primarily addressed through stricter gun control legislation and policies targeting social disorganization and economic deprivation.

Shifts within the interest group landscape are less likely to generate lasting momentum for addressing the mass shooting problem, whereas changes in public opinion—driven by the growing scale of the issue—carry greater potential to advance meaningful solutions (Kingdon, 2011; Merry, 2023). Therefore, it is important to examine how audience opinions may shift in response to various external stimuli. In the current study, these stimuli refer to attributes of media messages, which serve as a bridge between audience opinion and broader public opinion (Scheufele & Tewksbury, 2007). Responsibility framing in news coverage, one type of message

attribute, and its potential effects are discussed in this section. The other two attributes examined in this study, content structures and localization in news reporting, are discussed in the following sections.

Previous research has discovered that the way sociopolitical issues are framed in the media could influence citizens' corresponding policy preferences (e.g., Iyengar,1996; Meltzer et al., 2020; Temmann et al., 2022; Wikler, 2002; Weiner, 2006). In the context of the current study's focus, responsibility framing, through attributional processes, could shape how individuals assign blame or credit, influencing beliefs about responsibility and related policy attitudes (Iyengar, 1996), as well as social behaviors (i.e., action or inaction; Weiner, 2006). Niederdeppe and conligues (2011) further confirmed this phenomenon in their study on attribution processes and policy support, finding that attributing both the causes and solutions of issues to societal factors was positively linked to increased support for public policy interventions. In some cases, these attributions may even facilitate or hinder the development of policies intended to support those affected (Wikler, 2002). By defining social and cultural relationships between certain groups and the issue covered—for example, associating minority groups with criminality or portraying unstable societies as sources of terrorism—news messages could affect how audiences understand the issue and attribute responsibility (Feezell et al., 2019).

The tendency of individual-level responsibility framing to prompt audiences to attribute responsibility to individual factors, and the tendency of structural-level framing to encourage attributions to societal or governmental forces, has been observed across various policy domains (Feezell et al., 2019). From poverty and crime to natural disasters such as Hurricane Katrina, the distinction between these two framing approaches has been shown to influence how responsibility is assigned (e.g., Ben-Porath & Shaker, 2010; Feezell et al., 2019; Iyengar, 1996;

S.-H. Kim et al., 2012). Iyengar (1991) explored the effects of exposure to television news that framed broad political issues—such as security concerns (including crime and terrorism) and social welfare challenges (including poverty, unemployment, and racial inequality)on the individual versus structural level. He found that participants who viewed news stories focusing on—individual accounts of poor people, without incorporating the broader context of the issue, were more likely to attribute poverty to personal failings. In contrast, framing poverty on the structural level tended to encourage audiences to consider macro-level societal and governmental factors as responsible for both causing and alleviating the issue.

Iyengar (1991) provided an early foundation for understanding how news media influence responsibility attributions (Goldberg et al., 2022), focusing specifically on how television news framed issues on the individual versus structural level. Eide (2017) extended this analysis to other news platforms, including newspapers, mobile news apps, and social media. He illustrated how human-interest framing often shifts attention toward individual and private experiences while downplaying the structural and political dimensions of social issues. In this sense, individual-level news framing tends to foster a self-centered rather than cohesive, collective approach to understanding political issues (Bennett, 1996; Iyengar, 1991).

Following Iyengar's foundational work (1989, 1991, 1996), subsequent research has further explored this field across a range of political and social issues—including mandatory minimum sentencing, climate change, school dropout rates, and public health challenges (e.g., Gross, 2008; Hart, 2011; Strange & Leung, 1999; Temmann et al., 2022). While findings vary across contexts, many of these studies have identified a consistent pattern, namely that framing an issue in terms of societal responsibility tends to increase support for policy measures, whereas individual-level responsibility framing often reduces that support. This pattern can be

theoretically understood through the distinction between individual-level and structural-level responsibility attributions. When audiences encounter news stories that highlight a single case or event (i.e., individual-level framing) rather than presenting a broader social or political context (i.e., structural-level framing), cognitive processes related to systemic understanding would be less accessible. As a result, audiences would become more likely to assign responsibility to the individual featured in the report, perceiving the issue as a personal concern rather than a reflection of broader societal conditions (Boukes, 2022; Iyengar, 1991; Rucinski, 1992).

This biased focus on individual-level responsibility attributions has been shown to stigmatize certain groups by implicitly blaming them for causing or experiencing the issues covered by news media (e.g., Frederick et al., 2016; Iyengar, 1991; McGinty et al., 2013; Puhl & Brownell, 2003; Weiner, 2006). Weiner (2006) reviewed meta-analytical findings on responsibility framing and demonstrated how individual-level framing could contribute to the stigmatization of those affected by social problems. Similarly, Frederick et al. (2016) and Puhl and Brownell (2003) identified comparable stigmatizing effects of individual-level attributions on groups dealing with certain health conditions, such as fatness and obesity. In the context of the present study, media emphasis on the mass shooter's mental health status and actions during the attack has been found to foster negative public attitudes toward individuals with serious mental illness (McGinty et al., 2013; Wilson et al., 2016). These attitudes, in turn, could negatively impact treatment rates among those affected (McGinty et al., 2013).

Opposing Findings. Nevertheless, several studies have reported unexpected or mixed results that challenge Iyengar's (1989, 1991, 1996) findings and assumptions regarding responsibility framing in news coverage (e.g., Boukes, 2022; Boukes et al., 2015; Sun et al., 2016; Temmann et al., 2022). These inconsistencies could be explained by a range of factors,

including overlapping framing dimensions, data collection quality issues, variations in message characteristics and exemplar features, cultural differences, and the ideological orientation of audiences (Boukes, 2022; Temmann et al., 2022). Major (2018) observed that participants exposed to individual-level framing were more likely to view depression as stemming from societal causes. In her study, individual-level framing was defined as news content featuring a person with depression, yet the solution presented within the same message was situated on the societal level. This combination of individual and structural framing elements likely confounded the frame dimensions, leading to a reversal of the expected attribution pattern (Temmann et al., 2022).

Sun and colleagues (2016) found that while structurally framed news articles increased participants' tendency to assign responsibility for obesity to societal forces, exposure to individual-level framing had no significant effect on attribution patterns. However, their experiment was evaluated as low in quality based on the criteria adapted from the Mixed Methods Appraisal Tool (MMAT; Hong et al., 2018), which considers factors such as sampling quality, stimulus pretesting, manipulation checks, measurement validity, randomization procedures and control of confounding variables (Temmann et al., 2022).

Apart from overlapping framing dimensions and data collection quality issues, message features and exemplar characteristics have also been shown to influence how people interpret issues in ways that contradict Iyengar's (1989, 1991, 1996) findings and assumptions. Hopmann and colleagues (2017) discovered that under individual-level news framing, when audiences perceived the individuals involved in a social issue as deserving of assistance, they were less likely to see their needs as self-inflicted and were more inclined to support measures aimed at improving social welfare. Conversely, when those individuals were viewed as less deserving,

audiences tended to favor reducing support. Ostfeld and Mutz (2014) further observed that, in the context of individual-level framing, perceived similarity between audiences and the reported victims of a social issue could promote more favorable attitudes toward related policy measures.

Additionally, Ciuk and Rottman (2020) demonstrated that issue salience could affect whether there was a difference in the effects of individual- versus structural-level framing on audiences' moral judgments of certain issues. They found that issues with lower or moderate salience tend to yield a notable difference in those effects, unlike those with high salience. Moreover, Feezell and colleagues (2019) found that the topic itself could influence the presence of framing effects in responsibility attributions. Specifically, their findings aligned with Iyengar's (1989, 1991, 1996) results when the topic was poverty; however, when the issue involved religious radicalism, the framing effects disappeared.

Cultural differences have also been shown to contribute to inconsistencies in research findings compared to Iyengar's (1989, 1991, 1996) results and assumptions regarding responsibility framing in news coverage, as cultural environments may influence the extent to which news content resonates with audiences (Scheufele & Iyengar, 2012). As a typical example, most research conducted in the U.S. has shown that individual-level framing tends to encourage individual-level responsibility attributions (Gross, 2008; Hart, 2011; Iyengar, 1991; Springer & Harwood, 2015; Strange & Leung, 1999). In contrast, studies from Northern European contexts have found that individual-level framing would instead lead to structural-level responsibility attributions (Aarøe, 2011; Andersen et al., 2017; Boukes, 2022; Boukes et al., 2015; Hopmann et al., 2017).

Compared to American culture, Northern European societies tend to place less emphasis on individualism (Hofstede, 2001; Trompenaars & Hampden-Turner, 2012). This cultural

difference is reflected in Northern Europe's strong welfare systems, including broad social insurance coverage, higher job security, and more equitable income distribution (Aarøe & Petersen, 2014). In this setting, Northern European citizens are generally inclined to believe that it is the responsibility of governmental institutions to shield individuals from major societal problems (Aarøe & Petersen, 2014). When encountering individual-level responsibility framing in news coverage, individuals in Northern Europe may be more likely to feel empathy toward those in need. This feeling of empathy may in turn reinforce the belief that responsibility for the issue lies with political actors rather than with individual citizens (Aarøe, 2011; Boukes, 2022; Grabe et al., 2017; Gross, 2008). In contrast, American audiences—whose cultural context places greater focus on individualism—may be less inclined to consider systemic factors and more likely to assign responsibility to the individual featured (Boukes, 2022).

Placing the preceding discussion within the scope of the current research, first, , this research aims to improve understanding of the mass shooting issue in U.S. society by focusing on the influence of media message attributes—a dimension that should be examined in light of American cultural meaning systems. Accordingly, the present study's findings on responsibility framing in news coverage are likely to align with those of Iyengar (1989, 1991, 1996) and other studies in this field conducted in the U.S. or drawing on U.S.-based data (Gross, 2008; Hart, 2011; Iyengar, 1991; Springer & Harwood, 2015; Strange & Leung, 1999). Second, the present researcher strived to avoid conflating individual- and structural-level framing in operationalization, along with other issues that may affect data collection quality. Furthermore, the study incorporated message variation (i.e., covering mass shooting incidents occurring in different locations and involving persons with varying identities) to reduce potential confounding

effects related to message characteristics and exemplar features. These procedures are discussed in greater detail in the Methodology chapter.

Under these conditions, factors that might otherwise challenge Iyengar's (1989, 1991, 1996) findings and assumptions regarding responsibility framing in news coverage can, to some extent, be circumvented in the current research. This suggests that the present study is likely to further confirm Iyengar's (1989, 1991, 1996) findings and assumptions in the context of news coverage on mass shootings: individual-level framing could lead audiences to interpret issues through an individual lens, whereas structural-level framing could prompt interpretation on the structural level. Grounded in this line of reasoning, the present study develops the following hypotheses about how responsibility framing in news coverage of the mass shooting issue may influence audiences' perceptions of the key causes and solutions associated with the issue:

H1a: Participants exposed to structural-level responsibility framing are more likely to view mass shootings as primarily caused by structural-level factors, compared to those exposed to individual-level responsibility framing.

H1b: Participants exposed to structural-level framing are more likely to believe that mass shootings should primarily be addressed through structural-level solutions, compared to those exposed to individual-level framing.

2.2.2. News Content Structure Matters: Narrative Versus Non-Narrative News Reporting

For generations, storytelling has served as a fundamental way to disseminate information (M. C. Green & Fitzgerald, 2017). Long before written language became common, oral narratives enabled people to transmit knowledge across time and communities. Even in the modern era, storytelling remains a key element of both personal interaction and mass media. The influence of stories has been well acknowledged in society. For instance, some governments and

public schools have been found to ban or destroy books they view as challenges to their ideology. Scholars in fields such as psychology and communication continue to explore the factors through which narratives influence individuals' thinking and behavior in real-world contexts (M. C. Green & Fitzgerald, 2017).

The current study investigated one such factor: narrative transportation. Stories tend to be more effective when audiences are deeply engaged—when readers or viewers set aside their connection to the real world and enter the narrative world constructed by the author (M. C. Green, 2021). As individuals are drawn into these narrative environments and their attention is maintained, they may experience intense emotions and form vivid mental imagery. Their awareness of physical surroundings or the passage of time may diminish. This deep absorption, often described as being "lost in a story," lies at the heart of narrative transportation (M. C. Green, 2021).

Specifically, the present researcher is interested in exploring two content structures—narrative versus non-narrative—as a message attribute, given the empirically demonstrated potential of these two content structures to influence audience engagement with, and acceptance of, the primary frame or perspective conveyed in mediated messages such as news reports, misinformation corrections, and health communications (e.g., Chun & C.-K. Shi, 2013; Ecker et al., 2020; Greene & Brinn, 2003; Hinyard & Kreuter, 2007; Leshner et al., 2018; McQueen et al., 2011; Oliver et al., 2012). Theoretically, the potential effects of these two content structures have been conceptualized within the framework of the Transportation Theory (M. C. Green, 2008; Kreuter et al., 2007; Murphy et al., 2013). Moreover, previous research has consistently highlighted the importance of further exploring narrative transportation to improve the

understanding of how narratives function (e.g., Moyer-Gusé, 2008; Obregon et al., 2021; Petraglia, 2007; Sood et al., 2017; Tufte, 2008).

The Transportation Theory. Transportation is considered an experiential engagement with narratives, involving the allocation of mental and cognitive resources to following a storyline. The Transportation Theory conceptualizes narrative transportation as a process in which individuals become so absorbed in a storyline that their sense of connection to the real world is temporarily diminished (M. C. Green & Fitzgerald, 2017). Transportation can occur across various narrative forms, including text, audio, and video, and in both fictional and nonfictional content. Narrative transportation can occur regardless of whether a story portrays real-world events—such as those found in documentaries or news reports—or is entirely fictional and imagined by the author.

The concept of "transportation" was introduced into communication research by M. C. Green and Brock (2000), who drew upon the earlier work of a cognitive psychologist, Richard Gerrig (1993). Gerrig used the term metaphorically, likening the experience of engaging with a narrative to that of physical travel—where an individual temporarily departs from their familiar environment, encounters something new, and returns changed in some way by the experience. Analogously, when individuals are fully transported into a story world that distances them from their immediate reality, they may adjust their real-world beliefs and behaviors in ways that reflect the narrative. Put differently, individuals may, to some degree, modify their attitudes and behaviors depending on the extent of their narrative transportation.

Definitions of Narrative and Non-Narrative Content Structures. During narrative transportation, audiences' cognitive resources tend to be directed toward the unfolding story, which may lead to reduced awareness of time and surroundings, along with heightened

emotional engagement (M. C. Green & Fitzgerald, 2017). Within this framework, a narrative is defined as a structured account of events—typically with a clear beginning, middle, and end—where characters encounter and work through one or more. Accordingly, narrative content structure generally includes key elements such as characters (i.e., human or human-like figures, including animals), temporality (i.e., a sequence of events unfolding over time), and causality (i.e., events connected through cause-and-effect relationships; Dahlstrom, 2014). Narrative content structure is not limited to fictional content. Nonfiction media, such as documentaries and certain news reports, follow a narrative format, or they may not.

Taking into account nuanced definitions of narrative from previous studies, Braddock and Dillard (2016) proposed a comprehensive definition that describes a narrative as a coherent sequence of causally connected events unfolding in a dynamic setting, marked by conflict, change, and resolution through deliberate, non-routine actions carried out by characters. This definition is especially applicable to the current research, as it clearly differentiates narrative from other non-narrative formats—such as descriptive messages lacking temporal progression, causally disconnected event lists, recipes, rhetorical arguments, and instructional materials.

As a conceptual counterpart, non-narrative content structure typically involves the presentation of propositions in an illustrative and didactic manner, often supported by reasons and evidence (M. C. Green, 2008; Kreuter et al., 2007; Murphy et al., 2013). These messages are primarily factual or evidence-based and do not create an immersive world or scene into which audiences can be transported. Just as narrative content structure can be found in both fictional and nonfictional content, non-narrative structure also serves as an organizing format across both domains (M. C. Green, 2008; Kreuter et al., 2007; Murphy et al., 2013). The present study focuses on the application of narrative versus non-narrative content structures within a particular

category of nonfictional communication: news messages. While lengthier narratives may offer greater potential for deep transportation, studies have shown that even short and straightforward narratives—such as single-page print advertisements, brief advocacy messages, and concise news pieces—could elicit a transporting experience (e.g., Escalas, 2004; Mazzocco et al., 2010; Oliver et al., 2012). In this context, to further examine narrative and non-narrative content structures, the present study tested and compared the effects of two content structures in brief news messages about mass shootings in the U.S.

The narrative-structured news piece in the current study is defined and was designed to begin by setting the scene of a mass shooting incident, followed by a description of how the event unfolded and concluded. A survivor and the family of a deceased victim are quoted throughout the descriptive account. As part of the post-incident context, the article includes a sheriff's statement on the shooter's status and the crime scene, along with a criminologist's commentary on potential solutions to the mass shooting issue in the U.S. This follows an hourglass narrative structure, which integrates the inverted pyramid with chronological storytelling (Fiveable, 2024). It begins with the basic facts, then develops into a sequential account with more details, and concludes by addressing broader concerns or implications. This structure is frequently used in crime reporting and in coverage of complex events that require in-depth investigation beyond the immediate facts (Fiveable, 2024).

In contrast, when reporting the same mass shooting incident and presenting the same facts as the narrative piece, the non-narrative news piece is defined and was designed to adopt a neutral, informative tone and to present the event in a straightforward and concise manner, with minimal use of vivid wording that would prompt audiences to visualize events and an emphasis on direct communication of essential facts. This differs from the narrative version, which

employs an emotionally engaging, descriptive style with sensory details. Axios, an American news website, serves as an example of a non-narrative news publication. Axios articles are typically concise to support quick consumption, often around 300 words, and are presented in bullet-point format, grouping key information into brief chunks rather than embedding it within a storyline, as narrative news pieces do (Murphy, 2021). Please refer to the Methodology chapter for more details.

Mechanisms Behind Transportation. Transportation theory elaborates on five mechanisms through which exposure to narrative messages may lead to changes in attitudes and behaviors. These mechanisms include reduced counterarguing, identification with characters, heightened perceived realism, story-related mental imagery, and emotional engagement. These mechanisms are discussed below.

Reduced Counterarguing. A common obstacle to attitude or behavior change is individuals' tendency to resist or counterargue persuasive messages (M. C. Green, 2021). Narratives may help reduce this resistance by presenting the core perspective—responsibility framing, in the context of the current study—in a way that seems less confrontational and more approachable (M. C. Green, 2021). When audiences are absorbed in a narrative's plotlines, they tend to withhold skepticism and set aside previously held beliefs (Gilbert, 1991; Muhamad, 2016), making them less likely to challenge the narrative's underlying messages and more open to accepting them (Brehm & Brehm, 1981; Slater & Rouner, 2002).

In some situations, individuals who experience narrative transportation may not consciously recognize the potential of the narrative to influence their understanding of the core perspective embedded in the content (M. C. Green & Fitzgerald, 2017). In the context of this study, news narratives are generally perceived as primarily factual and informative and thus

carry less overt persuasive intent than mediated messages such as advertisements and public service announcements. As a result, audiences may be less likely to recognize the potential influence of news narratives. For this reason, audiences may be less likely to be aware of the news narrative's potential influence, less compelled to alter their attitudes and behaviors, and less threatened in their freedom of choice (Brehm & Brehm, 1981; Moyer-Gusé, 2008). Given this dynamic, the primary perspective conveyed in the journalistic content may be accepted with reduced critical reflection or counterarguing (M. C. Green & Fitzgerald, 2017). When individuals are absorbed into a narrative world, they devote greater cognitive resources to emotionally engaging with and following the storyline, leaving fewer resources available to critically scrutinize the content (Green & Appel, 2024).

Nevertheless, being unaware of the persuasive intent is not a necessary condition for either experiencing transportation or for a narrative to be influential (M. C. Green & Fitzgerald, 2017). For instance, some health communication narratives convey an explicit message—such as encouraging cancer screening—yet still manage to engage and persuade audiences effectively. Moreover, transportation may weaken an individual's motivation or capacity to counterargue (M. C. Green & Fitzgerald, 2017). With reduced willingness to interrupt their state of transportation, audiences may avoid disengaging from certain aspects of the narrative, thereby lowering resistance. When their cognitive resources are fully devoted to processing the narrative, there may be limited mental capacity available to generate counterarguments. This reduction in counterarguing may, in turn, increase the likelihood of accepting the core perspective embedded in the information (M. C. Green & Fitzgerald, 2017).

Identification With Characters. Individuals may relate to characters in a narrative by recognizing their connections with these characters (M. C. Green, 2021). These perceived

connections may lead audiences to (1) alter their attitudes and behaviors to align with those of the characters or (2) see themselves in the characters' experiences, which may, in turn, influence their own attitudes and behaviors. In the context of the current research, participants who were exposed to the news narrative about mass shootings may (1) adjust their attitudes and behaviors to align with those of the sheriff, who commented on the shooter's status and crime scene, and the criminologist, who discussed the broader issue of mass shootings in U.S. society, or (2) resonate with the victim and the family of the deceased victim quoted in the descriptive account and, as a result, come to view mass shootings as events that could affect themselves or their loved ones—potentially shaping their attitudes and behaviors toward mass shootings and related solutions.

Prior research has found that identifying with narrative characters can enhance the likelihood that individuals adopt the beliefs expressed by those characters (Cohen, 2001; De Graaf et al., 2012), which could reduce their inclination to critically evaluate the character's thoughts, behaviors, or conveyed messages (Moyer-Gusé, 2008). In some cases, individuals may even shift aspects of their self-concept to align more closely with the characters they identify with. Moreover, negatively portrayed characters—such as villains—could also exert influence by prompting audiences to reject the character's values or actions (M. C. Green, 2021). For example, in a narrative designed by Lu et al. (2019) to encourage physical activity among children through active video games, most participants reported feeling inspired to be active—running, jumping, and playing—by the story's heroes, twin siblings with superpowers. A smaller number, however, indicated that the villain motivated them to engage in physical activity to defeat him.

In the context of the present study, the mass shooter may serve as such a negative character who elicits strong dislike from audiences, depending on how the narrative tells the story. In the individual-level responsibility framing of the narrative, a shooter portrayed as having a severe mental illness may be particularly disliked, which may subsequently reinforce stereotypes about people with mental illness, as demonstrated in previous research (e.g., McGinty et al., 2013; Wilson et al., 2016). In contrast, in the structural-level responsibility framing, the shooter may be less strongly condemned, as the narrative places the individual within a broader background of social disorganization and economic deprivation.

Heightened Perceived Realism. An increased perception of realism has been identified as a key factor contributing to belief change within the framework of narrative transportation (M. C. Green & Fitzgerald, 2017). Perceived realism is defined as an individual's subjective judgment regarding the plausibility or believability of a narrative (Hall, 2003). Prior research has found that perceiving a narrative as realistic could enhance the level of transportation experienced by the audience (M. C. Green, 2004). In the current study, the news messages are fact-based, so it should not be difficult for audiences to perceive realism as long as the narrative reports the information truthfully.

Narratives tend to be immersive because they are typically concrete, presenting factual or fictional experiences in vivid, detailed rather than abstract terms (M. C. Green & Fitzgerald, 2017). While audiences might disagree with the implications of a narrative or argue that it is unrealistic or unrepresentative, at least in the case of factual narratives—such as news reports in the context of this study—the events themselves are difficult to deny. Although concreteness is a common feature of narratives, their impact could be further amplified when they are perceived as

especially vivid and realistic, thereby enhancing the experience of transportation (M. C. Green & Fitzgerald, 2017).

Mental Imagery. The experience of being transported into a narrative could connect vivid mental images with the beliefs conveyed in the content (M. C. Green & Fitzgerald, 2017). For example, an image of a person affected by a smoking-related illness may become associated with beliefs about the importance of quitting smoking. This link between imagery and belief may help explain why narratives could be impactful. Over time, recalling or encountering such images may prompt individuals to recall the broader message of the narrative, thereby reinforcing its associated beliefs (M. C. Green & Fitzgerald, 2017).

Narratives that support the development of detailed mental imagery are often more impactful (M. C. Green & Fitzgerald, 2017). Such imagery may be elicited not only through visual presentation but also through descriptive language in text-based messages—such as news articles, which are one of the focal points of the current research. According to Transportation Theory, when individuals are transported, they are more likely to generate mental images from the content, and those images tend to have greater influence compared to a non-transported state. Both a person's capacity for mental imagery and conditions that support the creation of vivid internal representations could enhance the impact of a narrative, and this influence may endure over time (M. C. Green & Fitzgerald, 2017).

Emotional Engagement. A central aspect of most narratives lies in the emotions they elicit—whether joy, anger, or fear (M. C. Green, 2021). Narratives tend to be especially impactful when they evoke strong emotional reactions. In the context of the present study, news narratives about mass shootings are likely to evoke: (1) anger—directed either at the shooter or at insufficient social policies, depending on the responsibility framing; (2) fear—arising from the

fatal consequences of the reported incident; and (3) hopefulness—rooted in the criminologist's recommendations for addressing the issue.

Audiences who experience narrative transportation are more likely to exhibit strong emotional responses compared to those who do not (M. C. Green & Fitzgerald, 2017). These affective reactions may enhance the influence of narratives, particularly in influencing attitudes. Within the framework of Transportation Theory, emotions specifically refer to responses elicited by the characters and events portrayed in the narrative, rather than reactions to its aesthetic qualities—such as appreciation of the narrative's form, structure, or beauty. In this regard, the current research focuses on emotional reactions to the quoted individuals and the mass shooting incident featured in the news narrative. Emotional engagement may differ between fictional and nonfictional narratives, particularly in terms of the intensity of action tendencies and the duration of emotional responses (M. C. Green & Fitzgerald, 2017). For example, viewers watching a horror film involving ghosts do not necessarily fear encountering such ghosts in real life, whereas those engaging with a news report about a mass shooting may fear that a similar event could one day affect them personally.

Taken together, according to the Transportation Theory, five psychological processes explicate how individuals may be influenced while immersed in a narrative. One mechanism is reduction in counterarguing, where individuals are less likely to generate critical thoughts that oppose the message due to their cognitive focus on the story. Additionally, audiences may form connections with characters, which can foster identification and increase receptivity to the character's perspectives and experiences. Heightened perception of realism—when the narrative is viewed as believable or plausible—could also contribute to the impact. Another key process involves the generation of vivid mental imagery, in which individuals visualize narrative events,

enhancing memory and emotional resonance. Finally, emotional engagement, or affective responses to the characters and events within the narrative, plays a central role in deepening the immersive experience and supporting message acceptance.

Narrative Engagement. Taking into consideration the mechanisms discussed above, the present researcher is particularly interested in examining narrative engagement, a concept situated within the framework of Transportation Theory. Narrative engagement specifically reflects the process of constructing mental representations of unfolding events in narratives (Busselle & Bilandzic, 2009). While it is often closely associated with transportation, narrative engagement is especially valuable in contexts where researchers aim to specifically explore aspects of the narrative experience (M. C. Green & Fitzgerald, 2017).

Narrative engagement consists of four components of experiential involvement with narratives: narrative understanding, attentional focus, emotional engagement, and narrative presence within the narrative (Busselle & Bilandzic, 2009). The following discussion elaborates on these components and their points of intersection with several of the five psychological mechanisms underlying narrative transportation.

***Narrative Understanding*.** Narrative understanding encompasses items related to narrative realism and cognitive perspective taking, reflecting how audiences interpret and make sense of a narrative (Busselle & Bilandzic, 2009). It is typically defined as the ease with which one comprehends the unfolding story or, under a mental model's framework, the ease of constructing coherent representations of meaning. This dimension can alternatively be viewed as the absence of difficulty in processing the narrative. While comprehension is a central component of narrative engagement, it often occurs without conscious awareness when the process runs smoothly—that is, individuals tend to notice it only when comprehension breaks

down. This asymmetrical nature mirrors the lived experience of narrative processing and highlights how understanding is more often recognized through its absence than its presence.

Narrative understanding shares some overlap with heightened perceived realism, one of the mechanisms underlying narrative transportation discussed earlier. When audiences perceive a narrative as plausible and believable (M. C. Green & Fitzgerald, 2017), they may be more likely to find its content easier to understand. In the context of the present study, given the fact-based nature of news reporting and its tendency to avoid complex language and expression, participants may be less skeptical about the realism of mass shooting coverage and experience fewer difficulties in processing the narrative.

Attentional Focus. The dimension of attentional focus reflects a similar asymmetry to that of narrative understanding (Busselle & Bilandzic, 2009). When audiences are genuinely engaged, they are typically unaware of their sustained attention and only become conscious of it when their focus lapses or needs to be redirected. In other words, individuals are generally not aware of not being distracted. This dimension captures the degree to which viewers remain mentally concentrated on the content or become distracted from it.

Narrative Presence. Narrative presence describes the subjective experience of feeling as though one has left the real world and become immersed in the narrative world (Busselle & Bilandzic, 2009). Compared to the mechanisms of transportation that break down the overall process, narrative presence—a dimension of narrative engagement—more explicitly represents the experience of being transported from the real world into the narrative world. It involves a perceived shift in awareness from the actual environment to the story environment. This concept is understood as having two interrelated components. The first involves deep concentration that leads to a diminished awareness of oneself and one's immediate surroundings.

The second involves the sensation of being transported to a different time and space, a quality considered specific to narrative experiences. The first component—reduced self-awareness—is viewed as a result of focused attention on the task at hand, while the second—feeling present in another world—is seen as stemming from the mental construction of a narrative reality. Although the distinction between the two may seem subtle, it is conceptually important. A loss of self-awareness can occur during any highly engaging activity, while narrative presence uniquely involves the perception of entering an imagined world.

***Emotional Engag*ement.** Emotional engagement refers to the extent to which audiences experience emotions in response to characters, either by sharing the characters' emotional states (i.e., empathy) or by feeling concern for them (i.e., sympathy; Busselle & Bilandzic, 2009). Unlike the emotional engagement mechanism previously discussed in the context of transportation, the emotional engagement dimension within the narrative engagement framework is characterized by emotional arousal, rather than being associated with any specific type of emotion (e.g., joy, anger, or fear) or emotional valence (positive or negative; Ravaja et al., 2006).

Emotional Responses and Their Related Theoretical Basis. As discussed, engagement with characters and plotlines is often anchored in emotional experience (Ophir et al., 2021b). The current research specifically focuses on a distinct aspect of Transportation Theory—narrative engagement—rather than examining transportation in a broad sense. However, as discussed in the section on transportation mechanisms, news coverage of mass shootings has the potential to elicit discrete emotional responses. Therefore, in addition to examining emotional arousal, this study also investigated specific emotions, including anger, fear, and hopefulness. In other words, the research explored narrative engagement through its four dimensions while also accounting for discrete emotional responses as part of the broader transportation experience.

In effect, previous scholarship has demonstrated a conceptual link between emotional arousal and discrete emotions through the association of two views of emotion: the discrete emotion perspective and the dimensional approach to emotion (e.g., Bolls, 2010; Cacioppo et al., 1999; Izard, 2009; Lang & Bradley, 2008; Larsen et al., 2008; Lazarus, 1991; S. Lee & Lang, 2009; Nabi, 2010). The discrete emotion perspective views emotions as distinct basic states that emerge from how people appraise their surroundings (Frijda, 1986; Lazarus, 1991). Through this appraisal, individuals interpret their interactions with environmental stimuli, which in turn guide adaptive responses (Izard, 2009).

The dimensional perspective defines emotion as a brief, affectively valenced response that arises from underlying motivational processes (Lang, 1995; Lang & Bradley, 2008; Larsen et al., 2008). From this perspective, emotions are constructed from these motivational processes that are activated whenever individuals encounter meaningful stimuli or social interactions (Cacioppo et al., 1999). Motivation is organized along two dimensions: direction and intensity (Dickinson & Dearing, 1979). Direction distinguishes motivated behaviors that range from approach to avoidance, while intensity captures the strength of these tendencies. Within the dimensional framework, direction corresponds to the valence of emotional experience—pleasant versus unpleasant—whereas intensity corresponds to the arousal dimension (Cacioppo & Gardner, 1999).

These two perspectives are not mutually exclusive. The discrete emotion perspective acknowledges that the motivational processes, which classify stimuli as positive or negative, play a role in the emergence of emotion (Bolls, 2010). Also, dimensional theorists do not deny the existence of discrete emotions. Instead, they suggest that these emotions can be mapped onto a two-dimensional axis that represents the landscape of emotional experience (Nabi, 2010). This

shifts the focus from a simple bipolar view of emotional experience—negative versus positive—to a more nuanced perspective, one that enables scholars to capture the rich emotional complexity when examining communication processes and effects (Bolls, 2010).

The link between discrete emotions and the dimensional approach can be traced to William James (1890), who regarded discrete affective states and motivational processes as closely intertwined (Bradley & Lang, 2007). In this view, emotion provides the energy for human communication, while motivation serves as the underlying force propelling emotional responses. Bolls (2010) further situated both discrete emotions and motivational processes within the framework of cognitive appraisal, with discrete emotions emphasizing lower-level appraisals of meaningful stimuli and motivational processes emphasizing higher-level appraisals. Appetitive and aversive motivational activities, operating along the arousal and valence dimensions, give rise to discrete emotional states.

S. Lee and Lang (2009) examined whether predictable activation in the appetitive and/or aversive motivational systems accounts for the generation and experience of discrete emotions (i.e., anger, sadness, joy, and fear) elicited while viewing televised public service announcements. Their results showed that activity within these motivational subsystems underlay participants' discrete affective states. Specifically, joy emerged as a strongly appetitive state; fear was marked by strong aversive activation; sadness reflected a moderately activated aversive response; and anger involved coactivation of both appetitive and aversive systems.

Hence, discrete emotional states are closely linked to the arousal dimension, as the discrete emotion perspective and the dimensional approach are intertwined. Further, based on their findings, S. Lee and Lang (2009) argued that integrating insights from both discrete and dimensional perspectives provides a more comprehensive understanding of cognition, emotion,

and motivation. This aligns with Nabi's (2010) theoretical account that communication research often examines approach-avoidance dynamics toward specific objects of study—such as adopting a healthy lifestyle or reducing the possibility of being harmed by crime—as well as the reasons and purposes underlying these behaviors.

Integrating insights from both discrete and dimensional perspectives can, therefore, help (1) communication scholars identify distinct affective states, providing the nuance vital to comprehensively understand human behavior, and (2) assess valence and intensity that reflect the broader landscape of emotional experience. In this regard, the current study could contribute to understanding the emotional experience of exposure to mass shooting news through a blended framework that integrates the discrete emotion perspective with the dimensional approach, situated within narrative engagement and the broader transportation experience.

Narrative Versus Non-Narrative Content Structures. To better understand the narrative experience, previous studies have compared and demonstrated the effectiveness of narratives versus non-narratives (e.g., Chun & C.-K. Shi, 2013; Ecker et al., 2020; Fitzgerald et al., 2019; M. C. Green, 2021; Greene & Brinn, 2003; Karpinska-Krakowiak et al., 2023; E. A. Kim et al., 2022; Lazić & Žeželj, 2021; McAllister, 2020; Moyer-Gusé et al., 2011; Murphy et al., 2013; Ophir et al., 2021b; Van Krieken & Sanders, 2021). Most studies have found that a narrative content structure tends to be more effective across various types of messages—such as news reports, advertisements, and public health communications (e.g., Chun & C.-K. Shi, 2013; Fitzgerald et al., 2019; M. C. Green, 2021; E. A. Kim et al., 2022; Karpinska-Krakowiak et al., 2023; Kleemans et al., 2018; Lazić & Žeželj, 2021; McAllister, 2020; McQueen et al., 2011; Moyer-Gusé et al., 2011; Murphy et al., 2013; Ophir et al., 2021b; Van Krieken & Sanders,

2021)—while some research has reported contrasting findings (e.g., Bekalu et al., 2018; Ecker et al., 2020; Greene & Brinn, 2003).

Narratives Outperforming Non-Narratives. Research by M. C. Green (2021; M. C. Green & Brock, 2000) demonstrated that the degree to which individuals become immersed in a narrative world serves as a key factor contributing to the narrative's effectiveness. M. C. Green (2021) explored narrative engagement through the lens of Transportation Theory in entertainment-education. Her work highlights transportation as a process involving cognition, emotional responses, and mental imagery centered on the narrative. This immersive experience plays an important role in narrative effects on individuals' attitudes and actions. In essence, the more deeply individuals are transported into a narrative, the more likely they are to adopt beliefs, attitudes, and behaviors consistent with the story.

M. C. Green and Brock (2000) conducted experiments to test the persuasiveness of public narratives—either fictional or nonfictional, often implying particular beliefs indirectly without explicitly stating them—within the framework of Transportation Theory. They found that participants who were more transported into the narrative (labeled either as a newspaper story or a literary magazine story) about a young girl attacked by a psychiatric patient in a public shopping area were more likely than less transported participants to endorse the narrative's implied conclusions. Specifically, highly transported participants were more inclined to support limiting the freedoms of psychiatric patients and to view the world as unjust. They also evaluated the victim and the victim's family more positively. Furthermore, M. C. Green and Brock (2000) discovered that labeling the narrative as fiction or nonfiction did not influence the degree of transportation. Participants became equally immersed in the narrative regardless of whether they

believed it to be fictional or nonfictional. Similarly, the effectiveness of the narrative was not affected by whether it was presented as fiction or nonfiction.

Murphy and colleagues (2013) investigated whether delivering health-related information through a narrative would have a stronger influence on participants' knowledge, attitudes, and behavioral intentions compared to delivering the same content in a conventional, non-narrative format. Participants completed surveys before and after viewing either a narrative or non-narrative film about cervical cancer. The findings indicated that the narrative approach was more effective in enhancing knowledge and shaping attitudes toward cervical cancer. Accordingly, Murphy and colleagues (2013) concluded that factors such as transportation into the story, emotional engagement, and character identification played a role in changes in issue-related knowledge, attitudes, and behavioral intentions. Their findings align with Moyer-Gusé's (2008) model of entertainment overcoming resistance, which suggested that being transported into a narrative—along with character involvement and/or enjoyment—could reduce counterarguing and lower resistance to the values conveyed by the narrative message.

Other scholars have also found a similar phenomenon in health communications (e.g., Lazić & Žeželj, 2021; Moyer-Gusé et al., 2011; Ophir et al., 2017). Moyer-Gusé and colleagues (2011) designed an experiment to test the effect of entertainment-education narratives and related mechanisms. Participants were randomly assigned to watch a video piece that either included or omitted scenes in which characters engaged in sexual discussions. The results suggest that exposure to sexual discussions encouraged participants to engage in this kind of discussion over the following two weeks. This effect was further strengthened by increased identification with the characters, which could enhance viewers' self-efficacy and reduce their counterarguing.

Ophir and colleagues (2017) conducted experiments to investigate the impacts of the entertainment narrative on perceptions of organic tobacco. Their multiple regression analysis—controlling for various types of engagement and demographic variables—indicated that narrative engagement was the most robust predictor of narrative-consistent beliefs. Lazić and Žeželj (2021) conducted a systematic review of experimental studies examining the impact of exposure to pro-vaccine narrative interventions—designed to counter anti-vaccination conspiracy theories or correct misinformation—compared to non-narrative interventions, on a range of vaccination-related outcomes. Overall, they found that narrative interventions generally produced more favorable effects on vaccination outcomes than their non-narrative counterparts.

McQueen and colleagues (2011) conducted an experiment to investigate the long-term effects of narrative versus non-narrative formats in health communications, specifically focusing on mammography and breast cancer. African American female participants aged 40 and above were recruited from economically disadvantaged neighborhoods in St. Louis, Missouri, and randomly assigned to the narrative condition featuring personal accounts from African American breast cancer survivors or the non-narrative condition matching for the content. Outcomes were assessed immediately after exposure and again at 3- and 6-month follow-ups. Findings showed that, compared to the non-narrative condition, participants of the narrative condition reported a higher level of both positive and negative emotional responses, greater identification with the message source, and stronger engagement with the content. Specifically, narrative exposure, positive emotions, identification, and engagement were linked to reduced counterarguing, which in turn could affect perceptions of barriers to screening and beliefs about cancer fatalism. Higher engagement also led to more discussions with family members, which enhanced message recall.

Additionally, narratives increased risk perception and fear, primarily through heightened negative affect (McQueen et al., 2011).

In advertising, previous scholarship has also demonstrated a similar phenomenon that narrative advertisements generally outperform their non-narrative counterparts (E. A. Kim et al., 2017, 2022; Karpinska-Krakowiak et al., 2023; Williams & Heo, 2023). Karpinska-Krakowiak and colleagues (2023) found that narrative advertising moderated the persuasive effects of differing argument types in advertisements for emerging technology products. Specifically, concrete arguments—highlighting general product benefits (e.g., "This product helps you stay organized")—were more persuasive when paired with consumers' higher psychological temporal distance from the product, while abstract arguments—emphasizing detailed product features (e.g., "This product includes advanced calendar management options")—were more effective when paired with lower psychological temporal distance. These persuasive effects were amplified when a narrative content structure was used, whereas no such effects were observed under a non-narrative structure. Similarly, E. A. Kim and colleagues (2022) observed that narrative-style advertising—compared to non-narrative-style advertising—was associated with higher perceived credibility and more favorable evaluations of environmentally friendly products.

In a separate study, E. A. Kim and a different group of collaborators (2017) proposed and examined an integrated process model to explain why narrative advertisements tend to be more persuasive than their non-narrative counterparts. Their study confirmed that four key psychological mechanisms—emotive response, hedonic value of advertisements, perceived credibility, and goal facilitation—jointly mediated the favorable impact of narrative-style advertising on attitudes toward advertisements and brands. Further, Williams and Heo's (2023)

research was among the first to test the phenomenon of narratives outperforming non-narratives in sport marketing. They found that narrative advertising tends to be more persuasive than non-narrative advertising, which presents information in a segmented, bullet-point format. In this setting, from a managerial standpoint, Williams and Heo (2023) strongly recommended incorporating narrative content structures into advertisements for sporting products.

The phenomenon of narratives proving more effective than non-narratives has also been observed in journalism (e.g., Chun & C.-K. Shi, 2013; H. S. Kim et al., 2012; Kleemans et al., 2018; Oliver et al., 2012; Shen et al., 2014; van Krieken et al., 2015; van Krieken & Sanders, 2021), which is most closely related to the context of the present study interested in exploring the effects of news coverage of mass shootings. Oliver and colleagues (2012) conducted an experiment to examine how different news message content structures—narrative versus non-narrative—may activate empathic responses that lead to more positive perceptions of stigmatized groups, such as immigrants, incarcerated individuals, or the elderly. Their findings indicated that narrative news reports elicited greater compassion for the individuals described, more favorable attitudes toward the broader stigmatized groups they represented, increased willingness to support these groups, and heightened interest in seeking additional information about the dilemmas they face and related advocacy efforts. Chun and Shi's (2013) study further observed that crime news messages employing a narrative content structure elicited higher levels of narrative involvement, narrative transportation, and empathy toward victims compared to those using a non-narrative content structure.

Van Krieken and Sanders (2021) systematically reviewed empirical research on narrative journalism published between 1998 and 2017. They demonstrated that narrative news messages tend to engage audiences more effectively than non-narrative ones, as reflected in audiences'

stronger sense of immersion in the reported events and their emotional connection with the characters involved (H. S. Kim et al., 2012; Oliver et al., 2012; Shen et al., 2014; van Krieken et al., 2015). Narrative content structure has also been found to be associated with improved comprehension, memory retention, and information recall—across both print (Kleemans et al., 2018) and television journalism (Machill et al., 2007). Moreover, narrative news articles have been observed to exert a greater impact on audiences' attitudes and behavioral intentions, compared to non-narrative ones, indicating the persuasive capacity of narrative journalism (H. S. Kim et al., 2012; Oliver et al., 2012; Shen et al., 2014).

Although emotional responses—including both emotional arousal and discrete emotions—have already been linked to narrative engagement and the broader experience of transportation, they warrant further discussion here given their potential theoretical contribution to understanding emotional processing in media. Emotional responses are often essential for capturing and sustaining audience engagement with a narrative's plot and characters (Ophir et al., 2021b). Although emotions may also play a role in responses to non-narrative messages (Eagly & Chaiken, 1993), their function appears to be more pronounced in narrative contexts, where audiences interact with characters embedded in emotionally evocative events (Dunlop et al., 2008; Gerrig, 1993; Scheff, 1979). Emotional responses elicited by narratives have been found to be associated with increased adoption of narrative-consistent attitudes (Mazzocco et al., 2010), active seeking of narrative-relevant information (Murphy et al., 2011), and more interpersonal discussion following message exposure (Dunlop et al., 2008).

Furthermore, the current study has the potential to enhance academic understanding of multiple emotions evoked by narratives, drawing from both narrative transportation and emotional processing of media perspectives. As discussed earlier, this study examined the effects

of news narratives about mass shootings, which are likely to elicit a range of emotional responses: (1) anger—directed either toward the shooter or toward inadequate social policies, depending on how responsibility is framed; (2) fear—stemming from the deadly outcomes of the incident; and (3) hopefulness—derived from the criminologist's proposed solutions to the problem.

Existing research that has examined multiple emotional responses—and, further, emotional shifts, such as those that may occur in the current study, potentially progressing from negative emotions like anger and fear to a more positive emotion such as hopefulness—is limited in number (Fitzgerald et al., 2019; Ophir et al., 2021b). Therefore, additional research is needed to better understand how multiple emotional responses elicited by narratives may influence attitudes and behaviors toward, or against, specific topics or agendas (McAllister, 2020), aligning with the focus of the current study.

Opposing Findings. Although a number of studies have demonstrated that narratives exert stronger effects on attitudes and behaviors compared to non-narratives, other research has reported conflicting results—showing that non-narratives are more effective—or has even found no difference between the two (e.g., Bekalu et al., 2018; Ecker et al., 2020; Greene & Brinn, 2003). These mixed findings warrant further review and discussion, upon which the present study develops hypotheses or research questions regarding narrative effects.

Greene and Brinn (2003) empirically compared the effects of narrative versus non-narrative health messages on Caucasian female college students' intentions to use—and actual use of—tanning beds. Their findings indicated that while both narrative and non-narrative messages outperformed having no message in lowering intentions to tan and raising perceived

susceptibility, non-narrative messages were generally more effective at decreasing actual tanning bed use than narrative ones.

Additionally, participants rated non-narrative messages as more informative. This is reasonable, as non-narrative messages tend to adopt a more neutral and informative tone, presenting facts in a straightforward and concise way. Meanwhile, narrative messages were perceived as more realistic. This is understandable, given that one of the key mechanisms or dimensions of narrative transportation or engagement involves enhanced perceived realism. Following this reasoning, both content structures would be expected to exert some influence; however, it remains unclear why, in this case, non-narrative messages proved more effective.

Greene and Brinn (2003) offered an explanation for why, in their study, non-narrative messages that briefly presented factual information were more effective than narrative messages that conveyed information through personalized storylines. Participants exposed to the narrative may have distanced themselves from the woman featured in the story, viewing her experience with skin cancer as unrelated to their own risk. In contrast, the non-narrative message may have prompted participants to reflect more directly on their own tanning bed use and consider the possibility that they, too, could be at risk for skin cancer.

According to this explanation, it is likely that the way Greene and Brinn (2003) conceptualized and operationalized the two content structures played a role in the finding that non-narratives outperformed narratives. Specifically, they defined and presented the narrative content structure as embedding information within highly personalized, individual-level storylines, while the non-narrative content structure was conceptualized and presented on a broader, societal level.

Nevertheless, in the present study, both narrative and non-narrative messages are capable of presenting information on either the individual or structural level of responsibility attribution. This conceptualization is theoretically grounded (e.g., Alexander, 2006; Chattoo, 2021; M. C. Green & Brock, 2000; McLaughlin et al., 2019; Polletta et al., 2011; Strauss, 1959). The following section further discusses the interaction between content structures (narrative vs. non-narrative) and responsibility framing (individual-level vs. structural-level attributions).

Given these nuanced conceptualizations and operationalizations, if narrative messages convey structural-level information while non-narrative messages present individual-level information, then findings comparing their effects would be confounded because responsibility attributions were not well controlled. This suggests, for example, that narrative messages with structural-level responsibility framing may increase perceived realism and, in turn, enhance the transportation experience within structural-level storytelling. As a result, such narratives may prompt readers to reflect more personally on their tanning bed use and the potential risks they themselves might face in developing skin cancer. Conversely, non-narrative messages with an individual-level responsibility lens may prompt participants to distance themselves from the woman described in the message, perceiving her experience as irrelevant to their own situation.

Greene and Brinn (2003) also recognized the crucial role of operationalization. For instance, they suggested that researchers and message designers pay close attention to how evidence is presented in their messages. Factors such as evidence quality, source credibility, the amount of evidence presented, and base rate neglect may influence message effectiveness—regardless of whether the messages are narrative or non-narrative.

Bekalu and colleagues (2018) also reported that non-narratives tended to outperform narratives and provided an explanation for this outcome. They experimentally compared the two

content structures in health messages with respect to their effects on knowledge and perceived response efficacy (i.e., the perceived effectiveness of preventive measures) related to pandemic influenza prevention. Their findings showed that participants exposed to the non-narrative message consistently demonstrated higher levels of knowledge and perceived response efficacy than those in the narrative condition, across socio-demographic groups including age, gender, education, race/ethnicity, and income.

In the discussion section of their paper, Bekalu and colleagues (2018) noted that the message topic played a key role in shaping their findings, which contradicted prior studies demonstrating that narratives were more effective than non-narratives in promoting healthy practices. The effectiveness of narratives in reducing resistance to message reception and processing does not appear to be essential for influencing attitudes toward pandemic influenza prevention, a form of public health emergencies. While previous studies have demonstrated that narrative transportation or engagement could lower resistance to persuasion (Moyer-Gusé & Nabi, 2010) thereby giving narratives an advantage over non-narratives (Murphy et al., 2015), the narrative content structure should not be regarded as a panacea.

The benefits of narratives are most evident in promoting counter-attitudinal or sensitive health behaviors, such as HPV vaccination and cancer screening (Murphy et al., 2015; Frank et al., 2015; Moran et al., 2013). Nonetheless, in urgent public health contexts, such as pandemic influenza examined in Bekalu and colleagues' (2018) study, a non-narrative approach that conveys preventive information directly may be more effective than a narrative approach., as audiences typically do not require engagement or transportation when counterarguments are minimal or absent.

Moreover, knowledge of pandemic influenza in Bekalu and colleagues' (2018) study was measured by true-or-false questions about basic knowledge points, such as "Pandemic influenza is a new virus," "Pandemic influenza does not affect healthy adults," and "Pandemic influenza is transmitted through direct contact with a sick person" (p. 5). In this context, the non-narrative approach, which directly presents such knowledge points, could easily outperform the narrative approach that embeds them within a storyline. In other words, the non-narrative condition in this case was designed to hit the bullseye, creating a disadvantaged comparison for the narrative condition especially when dealing with an uncontroversial topic.

In contrast, the current study measured knowledge about the mass shooting issue in a more nuanced way by asking participants to identify what the main cause and the main solution should be, rather than answering true-or-false questions. Response options for the main cause question are presented on a 7-point Likert scale: entirely due to individual factors, mostly due to individual factors, largely due to individual factors, equally due to individual and structural factors, largely due to structural factors, mostly due to structural factors, or entirely due to structural factors. Response options for the main solution question are similarly presented; for example: strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, or strongly agree that the mass shooting issue can be primarily addressed through policies targeting social disorganization and economic deprivation.

In this setting, the knowledge of the mass shooting issue is measured from a more attitudinal and ideological angle, compared with Bekalu and colleagues' (2018) study on pandemic influenza prevention, where knowledge was assessed through more basic factual items. Given that the mass shooting issue is a typically controversial sociopolitical topic, knowledge about it is better captured through attitudinal questions rather than true-or-false items.

In this regard, both the topic and the measurement approach may influence the results obtained. Therefore, Bekalu and colleagues' (2018) findings cannot fully demonstrate that, when addressing controversial topics, non-narratives produce stronger attitudinal and ideological effects than narratives.

Apart from opposing findings, Ecker and colleagues (2020) experimentally compared narrative and non-narrative misinformation correction messages in terms of their effectiveness and reported no significant difference, even though the narrative condition and the non-narrative condition each significantly reduced misinformation reliance compared with the no-correction condition. Nevertheless, this finding may not be reliable enough because the experimental stimuli were not consistently presented in the same format—which should have been carefully controlled as a potential confounding factor—across conditions. In two of the experiments, misinformation stimuli appeared as brief, one-sentence non-narrative claims. In another experiment, they were presented as news reports, with some using a narrative format and others employing a non-narrative one. This inconsistency in format may have confounded the tested relationship between correction message format (i.e., narrative vs. non-narrative) and correction effectiveness.

In the field of misinformation, Lazić and Žeželj (2021) systematically reviewed prior scholarship comparing narrative and non-narrative interventions targeting anti-vaccination conspiracy theories or misinformation presented in a narrative format. Their findings showed that, in most cases, narrative interventions outperformed non-narrative ones in correction effectiveness. Hence, given the operationalization error—namely, the inconsistency of stimulus formats—and the evidence of narratives outperforming non-narratives provided by Lazić and

Žeželj's (2021) review, Ecker and colleagues' (2020) finding of no difference may not be sufficiently reliable.

Despite mixed evidence, meta-analyses by Van Laer et al. (2014) and Braddock and Dillard (2016) indicate that overall, narratives outperform non-narratives. Although narratives are often regarded as having the potential to influence attitudes and behaviors, empirical findings on their effects have been inconsistent. To more precisely assess the impact of narratives on beliefs, attitudes, intentions, and behaviors, Braddock and Dillard (2016) conducted meta-analyses of studies that examined these outcomes. Their findings showed positive associations between narrative exposure and beliefs, attitudes, intentions, and behaviors that aligned with the narrative's message.

Van Laer and colleagues (2014) demonstrated that a stronger narrative transportation experience is associated with more narrative-aligned affective responses, fewer critical thoughts, greater engagement in narrative-oriented thinking, and increased story-consistent beliefs, attitudes, and intentions. Their meta-analysis also identified certain narrative qualities and individual differences that may enhance the experience of narrative transportation. Specifically, transportation tends to increase when narratives include relatable characters, an imaginable plot, and a sense of realism, and when audiences are familiar with the topic, pay close attention, exhibit high transportability, and possess higher levels of education.

In the current study, the narrative news report about the mass shooting issue in the U.S. was designed to tell the stories of a survivor and a deceased victim's family—characters with whom audiences may be inclined to identify. Since the narrative adopts a journalistic style and addresses a real-world social issue, an imaginable plot and a sense of realism are essential components. In terms of individual differences, the current study randomly assigned participants

to different experimental conditions, which could help control for such differences by ensuring that participants are evenly distributed across all groups. In other words, this random assignment approach could help minimize the likelihood that individual differences would confound final results. Therefore, within the context of the present study, narrative news messages may ultimately prove to be more effective than non-narrative messages.

Potential Explanations for Opposing Findings. Some previous scholarship specifically discussed and demonstrated possible reasons for the emergence of opposing findings (e.g., Braddock & Dillard, 2016; M. C. Green, 2021; Jones, 2013; McIntyre, 2017; McLaughlin et al., 2019; Thier et al., 2021). M. C. Green (2021) emphasized that the narrative's content plays an important role, given the lack of consistent empirical evidence favoring one medium over another (Braddock & Dillard, 2016; De Graaf et al., 2012). Thus, M. C. Green (2021) suggested choosing the medium that would be most effective and practical for delivering narrative content. More specifically, prior studies have suggested that the relative effectiveness of narrative versus non-narrative content structures may vary with the content's topic or situational context (e.g., Chun & C.-K. Shi, 2013; Ecker et al., 2020; Greene & Brinn, 2003; Hinyard & Kreuter, 2007; Leshner et al., 2018; McQueen et al., 2011; Oliver et al., 2012).

The medium and topic of news messages whose content structures—narrative versus non-narrative—were examined in the current study are, respectively, news reporting and the mass shooting issue in the U.S. Regarding the medium, as previously discussed, some prior studies in narrative journalism have provided evidence that narrative news tends to outperform non-narrative news (e.g., Chun & C.-K. Shi, 2013; H. S. Kim et al., 2012; Kleemans et al., 2018; Oliver et al., 2012; Shen et al., 2014; van Krieken et al., 2015). Therefore, when the news medium and the narrative content structure are well matched, they may exert a stronger influence

on audiences' knowledge of and attitudes toward the covered incidents than when the same medium employs a non-narrative structure.

In terms of the role of news topics in the effects of message content structures, previous research has shown that for social or political issues—such as mass shootings in the present study—narrative content structures tend to have a greater impact than non-narrative ones (e.g., McIntyre, 2017; McLaughlin et al., 2019; Shen et al., 2014; Thier et al., 2021). In this area of research, McLaughlin and colleagues (2019) provided definitions for political narratives and non-narratives, drawing on prior studies. They defined political narratives as storylines centered on sociopolitical issues, featuring political characters (e.g., the sheriff quoted in this study's stimuli), and situated within communities that are directly, indirectly, or potentially influenced by sociopolitical events. In contrast, political non-narratives concisely and straightforwardly present key information about a political issue or event.

Based on the definitions, McLaughlin and colleagues (2019) illustrated how political narratives serve as a means of conveying information that helps the public make sense of a recently occurred event—how or why it happened, its potential implications for themselves or for family members or associates, and recommended actions to address event-related concerns. Although grounded in real-world contexts, political narratives, in effect, symbolically construct sociopolitical meaning (Alexander, 2006, 2010; Edelman, 1988; Hunter, 1991). When transported into a political narrative, audiences tend to mentally represent and simulate it. During this transportation, they engage their cognitive and emotional capacities, often becoming absorbed in the storyline and temporarily disengaged from their immediate surroundings (McLaughlin et al., 2019). Accordingly, political narratives could affect audiences' perceptions of moral evaluation—suggesting who is viewed as virtuous or villainous—and imply which

political outcomes are considered as favorable or unfavorable (Jones, 2013, 2014; Polletta, 2015; Patterson & Monroe, 1998).

Unlike fictional narratives, political narratives are perceived as closely related to the world in which audiences live, despite being distinct from their direct experiences of reality (McLaughlin et al., 2019). With fictional narratives, audiences tend to be aware—either before or after narrative transportation—that the narrative world is fundamentally separate from the real world. Even while transported, they often retain the awareness that a clear boundary exists between fiction and reality. In most cases, audiences may become engaged with the narrative but still recognize themselves as external observers. Political narratives, however, draw on simulation and imagination to blur this boundary. Through political transportation, individuals tend to perceive such narratives as closely intertwined with their lived reality, making it easier to imagine themselves within the sociopolitical worlds these narratives portray (McLaughlin et al., 2019). In this context, audiences' political attitudes and behaviors may be influenced.

Some prior research has found that political information presented in a narrative content structure tended to have a stronger influence on attitudes and behaviors than information conveyed through a non-narrative content structure (e.g., Jones, 2013; Shen et al., 2014; Thier et al., 2021). Jones (2013) conducted an experiment examining how narrative versus non-narrative content structures influence public perceptions of climate change risk and related policy preferences. The results indicated that the narrative content structure had a stronger impact than the non-narrative content structure. Shen and colleagues (2014) explored how presenting a political issue in a narrative format might influence people's attitudes. In their experiment, participants read either narrative or non-narrative news pieces about the environmental issue

related to shale gas drilling. The findings showed that the narrative news had a stronger impact on participants' attitudes toward the issue, both immediately after reading and over time.

Moreover, Thier and colleagues' (2021) study identified similar effects of narrative content structure in solution-oriented journalism on news trust and story-specific beliefs. Their experimental stimuli addressed social topics such as issues affecting Native Alaskans, school disciplinary practices, and opioid dependency. They found that audiences who engaged with solution-oriented news messages presented in a narrative content structure—and experienced higher-level transportation—were more likely to perceive the messages as fair and credible, and to endorse the beliefs conveyed in the narrative. Accordingly, the authors recommended that producing compelling, solution-oriented news narratives could benefit both the journalism industry and democratic engagement. This finding aligns with a previous study by McIntyre (2017), which found that when a political news narrative included a suggested solution to the social issue it addressed, audiences tended to respond with fewer negative emotions and expressed more positive attitudes toward both the article and the solutions.

As stated, the stimuli in the present study—whether structured as narrative or non-narrative—conclude with a proposed solution on either the individual or structural level, recommended by a criminologist. Given this design, and despite some contradictory findings in prior research on content structures (i.e., narrative vs. non-narrative), it is highly likely that narrative news about mass shootings may tend to outperform its non-narrative counterpart in the current study. Therefore, given the present study's focus on political narratives—as well as its conceptualization and operationalization, as previously discussed—the following hypotheses are proposed regarding the effects of narrative versus non-narrative news on the mass shooting issue:

H2a: Participants exposed to narrative news messages about the mass shooting issue are expected to show greater narrative engagement than those exposed to non-narrative messages on the same issue.

H2b: Participants exposed to narrative news messages about the mass shooting issue are more likely to experience a stronger discrete emotion of anger than those exposed to non-narrative messages about the same issue.

H2c: Participants exposed to narrative news messages about the mass shooting issue are more likely to experience a stronger discrete emotion of fear than those exposed to non-narrative messages about the same issue.

H2d: Participants exposed to narrative news messages about the mass shooting issue are more likely to experience a stronger discrete emotion of hopefulness than those exposed to non-narrative messages about the same issue.

Narratives Versus Non-Narratives and Responsibility Framing on the Individual Versus Structural Level. As stated, in the current research, both narrative and non-narrative content structures could convey information attributing responsibility on either the individual or the structural level. This conceptualization has gained some support from prior scholarship (e.g., Alexander, 2006; Chattoo, 2021; M. C. Green & Brock, 2000; McLaughlin et al., 2019; Polletta et al., 2011; Strauss, 1959).

McLaughlin and colleagues (2019) elucidated that just as both narratives and non-narratives can be either fictional or nonfictional (M. C. Green & Brock, 2000), and can be delivered by individuals, groups, or social institutions (Polletta et al., 2011), they can, in turn, range from personally focused experiences (i.e., individual-level experiences; Strauss, 1959) to broader cultural narratives about society (i.e., structural-level accounts; Alexander, 2006). In

entertainment education, Chattoo (2021) discussed how entertainment narratives can serve U.S. social justice activism. She illustrated that the narrative content structure may extend beyond an individual perspective to encompass a broader cultural perspective that embeds a public policy-supportive frame.

Accordingly, in the current research, narrative news with individual-level responsibility framing is defined and was operationalized as employing an emotionally engaging, descriptive style with sensory details to present the facts of a mass shooting incident, attributing responsibility to individual-level factors such as mental health disorders or unresolved personal grievances or vendettas. Narrative news with structural-level responsibility framing, while maintaining the same emotionally engaging, descriptive style, was designed to incorporate the broader context of the mass shooting issue in the U.S., attributing responsibility to structural-level factors such as lax firearm regulations, legislative loopholes, and systemic social inequities.

Non-narrative news with individual-level responsibility framing is defined and was operationalized as using a bullet-point format to organize key information about a mass shooting incident into concise segments, attributing responsibility to individual-level factors. Non-narrative news with structural-level responsibility framing, while retaining the same bullet-point format and straightforward, concise style, was designed to incorporate the sociopolitical context of the issue in the U.S., attributing responsibility to structural-level factors. More details on the manipulation of the interaction between content structures and responsibility framing in the present study are provided in the Methodology chapter.

Research has shown that a message's content structures and responsibility framing could interact to influence perceptions of the issue or event presented and narrative engagement (e.g., Betsch et al., 2011, 2015; Iyengar & Kinder, 1987; Lazić & Žeželj, 2021; Niederdeppe et al.,

2011; Niederdeppe et al., 2014; Zhou & Niederdeppe, 2016). Zhou and Niederdeppe (2016) experimentally examined how personalized versus depersonalized narratives influence cognitive responses, narrative engagement, and support for obesity prevention policies. Results indicated that, compared to personalized narratives and a no-exposure control condition, depersonalized narratives were more effective in fostering support for obesity prevention policies. Specifically, personalized narratives were found to be associated with lower public support for health policies targeting changes to social factors. It is worth noting that the conceptualization and operationalization of personalized and depersonalized narratives closely parallel those of the present study's narratives with individual-level and structural-level responsibility framing, respectively. In other words, personalized narratives share similarities with narratives framed on the individual level, while depersonalized narratives resemble those framed on the structural level.

Niederdeppe and colleagues' (2014) study addressed these concepts in a way more directly aligned with the focus of the present research. Their findings mirrored those of Zhou and Niederdeppe (2016), confirming that narratives downplaying or moderately acknowledging personal responsibility—while emphasizing external, societal-level causes and solutions—were effective in increasing participants' attributions of obesity responsibility to structural factors. According to the findings of these studies, narratives with structural-level responsibility framing appear to be more influential than those with individual-level framing in increasing audience support for structural-level explanations when considering the causes and solutions of issues addressed in the narratives. This suggests that, in the context of the current research, the combination of a narrative content structure and structural-level responsibility framing tends to outperform the combination of a narrative content structure and individual-level responsibility

framing in increasing structural-level understanding about the primary causes and solutions of the mass shooting issue. In line with this logic, for news messages with the same content structure—whether narrative or non-narrative—those framed on the structural level are expected to outperform those framed on the individual level in improving structural-level understanding of the reported issue.

In a separate study, Niederdeppe and a different group of co-authors (2011) conducted an experiment comparing narrative and non-narrative messages in affecting audiences' responsibility attributions for causes and solutions of the obesity issue in the U.S. Participants were randomly assigned to experimental conditions presenting messages in different content structures—each emphasizing external, societal-level causes of obesity—or to a no-exposure control group. The results indicated that, compared to non-narratives with structural-level framing and the control group, narratives with structural-level responsibility framing tended to strengthen the belief that societal actors—such as the government and employers—bear responsibility for addressing the issue. However, this effect emerged only among liberals. Thus, this outcome partly reflects the greater effectiveness of narratives with structural-level responsibility framing in reducing reactive counterarguing compared to non-narratives with structural-level framing and the control group.

Placing Niederdeppe and colleagues' (2011) findings in the context of the current study, it is expected that combining a narrative content structure with structural-level responsibility framing would outperform combining a non-narrative content structure with structural-level framing in increasing structural or societal-level understanding of the primary causes and solutions to the mass shooting issue. Grounded in this logic, for news messages framed on the same level of responsibility attributions—whether on the individual or structural level—those

with a narrative content structure are expected to outperform those with a non-narrative content structure in generating structural-level knowledge about the reported issue.

In their seminal work News That Matters: Television and American Opinion, Iyengar and Kinder (1987) experimentally compared vivid and pallid news in the contexts of environmental hazards and unemployment. In the vividness condition, participants viewed news messages with a narrative content structure and individual-level responsibility framing, while in the pallidness condition, participants viewed messages with a non-narrative content structure and structural-level framing. The findings indicated an interaction between content structures and responsibility framing, showing that participants exposed to pallid news were more likely to view the covered issue as a vital and serious matter on the national agenda, whereas participants in the vividness condition tended to view the issue as an individual-level matter that would not affect the broader public—including themselves—and that should be addressed primarily by the individuals directly involved.

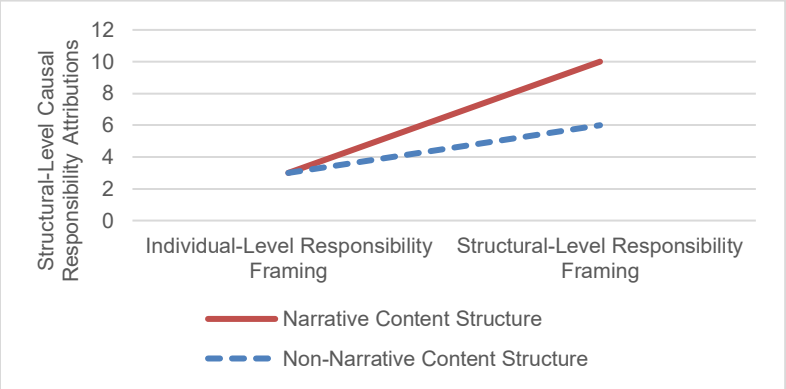
Therefore, an interaction between content structures and responsibility framing is anticipated. As stated, structural-level framing is expected to outperform individual-level framing within the same content structure, while a narrative content structure is expected to outperform a non-narrative content structure within the same level of responsibility framing in generating societal-level understandings of the reported issue. Accordingly, as shown in Figures 1, 2, and 3, the following hypotheses are developed to examine the effects of this interaction on participants' responsibility attributions for mass shootings in the U.S.:

H3a: Content structures and responsibility framing are expected to interact in their association with participants' tendency to view mass shootings as primarily caused by structural-level factors, such that this tendency will be lower for news messages

that are either non-narrative or use individual-level responsibility framing, and highest for messages that are narrative and use structural-level responsibility framing.

Figure 1

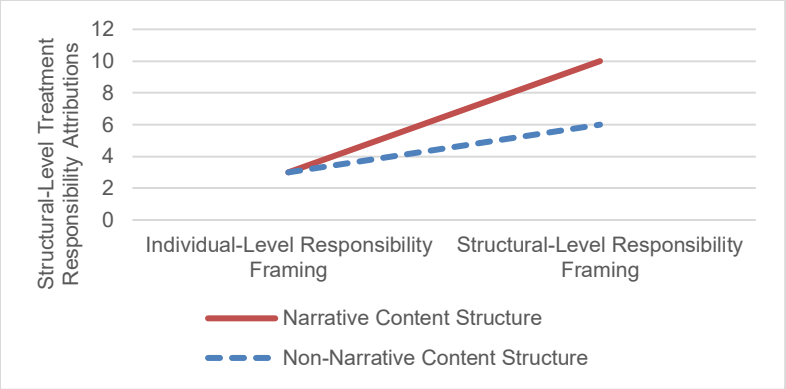
Hypothesized Interaction between Content Structures and Responsibility Framing in Relation to Structural-Level Causal Responsibility Attributions



H3b: Content structures and responsibility framing are expected to interact in their association with participants' tendency to believe that mass shootings should primarily be addressed through structural-level solutions, such that this tendency will be lower for news messages that are either non-narrative or use individual-level responsibility framing, and highest for messages that are narrative and use structural-level responsibility framing.

Figure 2

Hypothesized Interaction between Content Structures and Responsibility Framing in Relation to Structural-Level Treatment Responsibility Attributions



With respect to narrative engagement and the broader transportation experience, Lazić and Žeželj (2021) demonstrated a potential interaction between content structures and responsibility framing, noting that exposure to individual or personal-perspective narratives could distort understanding of factual information about vaccination. This is because, as some research on narrative bias (e.g., Betsch et al., 2011, 2015) has shown, reading personal accounts of vaccine side effects would engage recipients and evoke stronger emotional responses, thereby heightening the perceived risk of such side effects even when the statistical base rate is known (Lazić & Žeželj, 2021). In this view, combining a narrative content structure with individual-level responsibility framing appears to engage audiences more—and, of course, provoke stronger emotional responses—than combining a non-narrative structure with structural-level framing.

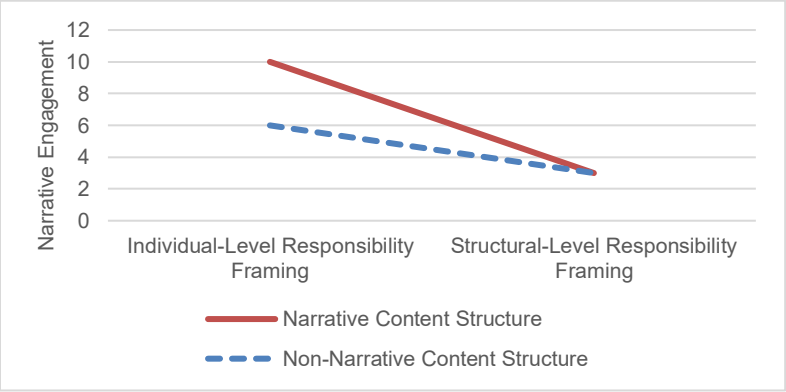
In a similar vein, Iyengar and Kinder (1987) argued that individual-level responsibility framing can be so engaging that it draws audiences deeply into the personal struggles of individuals, eliciting strong emotional responses and thereby preventing them from connecting these experiences to a broader sociopolitical context. That is, when absorbed in concrete details, viewers may overlook larger implications—even if they already know them. In this respect, individual-level responsibility framing is expected to be more engaging than structural-level framing. As demonstrated and proposed earlier, participants exposed to narrative news messages about the mass shooting issue are expected to show greater narrative engagement and stronger

discrete emotions—anger, fear, and hopefulness—than those exposed to non-narrative messages on the same issue. Accordingly, narrative engagement is expected to be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing. The corresponding hypotheses are therefore developed as follows and illustrated in Figures 4 and 5:

H3c: Content structures and responsibility framing are expected to interact in their association with participants' narrative engagement, such that narrative engagement will be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing.

Figure 3

Hypothesized Interaction between Content Structures and Responsibility Framing in Relation to Narrative Engagement



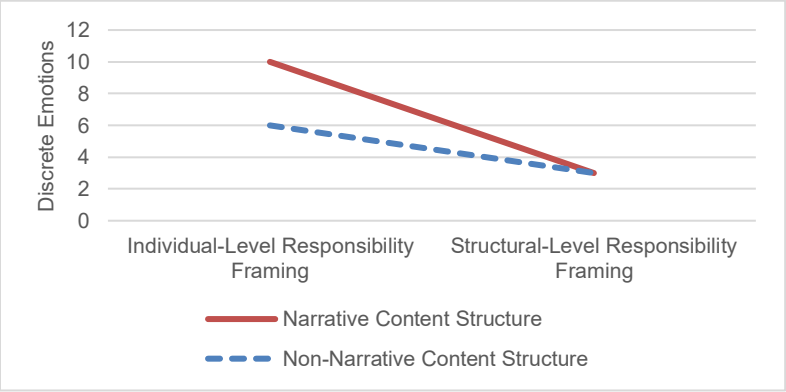
H3d: Content structures and responsibility framing are expected to interact in their association with participants' discrete emotion of anger, such that anger will be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing.

H3e: Content structures and responsibility framing are expected to interact in their association with participants' discrete emotion of fear, such that fear will be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing.

H3f: Content structures and responsibility framing are expected to interact in their association with participants' discrete emotion of hopefulness, such that hopefulness will be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing.

Figure 4

Hypothesized Interaction between Content Structures and Responsibility Framing in Relation to Discrete Emotions



2.2.3. Psychological Proximity to the Covered Event: Localization in News Reporting

In the real world, news on the national and community levels tends to reflect different perspectives that address distinct markets and audience needs (Degli Esposti et al., 2025; Shoemaker & Reese, 1996; Wagner & Collins, 2014). Audiences engage with these levels of coverage for differing information-seeking purposes, given that each level applies its own

criteria of newsworthiness. For instance, in the context of the current study, if a mass shooting incident has just occurred, national news may cover it with attention to how the issue is understood and addressed across the country as a whole (Fiveable, 2024; Sands, 2019), while regardless of whether the incident took place within its boundaries, community news tends to report it with concern for ensuring local safety (Carra, 2025; Sands, 2019). Therefore, news outlets operating on different levels of localization may report on the same issues or events while following different priorities and routines, thereby adopting distinct perspectives. To enhance the understanding of these levels of localization and better simulate real-world news reporting, the current study examined both the effects of localization in news reporting and its interactions with the two other focal factors of this study—responsibility framing and content structures.

Community Journalism. Community journalism is not a new concept in the U.S. Its roots can trace back to the 19th century when community bulletin boards served as local newspapers for farmers and ranchers (Rivas-Rodriguez, 2011). Early community news, however, largely represented White citizens while overlooking non-White communities (Rivas-Rodriguez, 2011). As immigration issues, racial unrest, and civil rights movements reshaped America's demographic landscape, community journalism gradually became more inclusive and reflective of diverse social groups (Rivas-Rodriguez, 2011). Today, community journalism not only serves mainstream audiences but also amplifies the voices of marginalized and disadvantaged communities, addressing their concerns in more engaging ways.

Aside from personal networks such as friends, family, and neighbors—reported by 70% of adults as a common source of local political information—American adults also commonly turn to community news outlets (66%), while smaller proportions turn to social media (54%), local government websites (32%), local nonprofits or advocacy organizations (31%), and local

elected officials (30%; Shearer et al., 2024). They follow a broad array of local topics (Shearer et al., 2024), with two-thirds or more indicating that they sometimes or even more frequently keep up with news about weather, crime, politics, and transportation, and half or more following coverage of arts and culture, the economy, education, and sports. Therefore, community journalism serves as an important channel for information acquisition, and crime is among the popular topics that attract residents' attention. In the context of the current study, mass shootings would appear as a crime-related topic reported on different levels of localization in reporting, including community-level reporting.

Community journalism plays a role in making the community structure—including community institutions, facilities, resources, and public spaces—more visible and accessible, helping residents understand and navigate their environment (Lowrey et al., 2008). In doing so, community news fosters symbolic interaction and dialogue within the community, which helps develop and reinforce a shared meaning about community life (Lowrey et al., 2008) and, in turn, cultivates a sense of community (Hess & Waller, 2014). A study by the Pew Research Center (Wang et al., 2024) further confirmed the positive relationship between a sense of community and residents' community news consumption and involvement in local political life. In the context of the current research, the sense of community with regard to concerns about mass shootings would mirror the community structure that can be revealed through community news coverage. In this respect, the community structure refers to community-wide gun violence prevention programs and initiatives, such as group violence intervention, street outreach, efforts to reduce reliance on the criminal justice system in favor of economic equity, and campaigns promoting mutual aid and community empowerment (Carlson, 2021).

By connecting relevant local resources and institutions and cultivating a sense of community, community journalism has the potential to advocate for social change within the community and even beyond (Lowrey et al., 2008; Wenzel & Crittenden, 2021). While most American adults believe that community journalists should remain neutral in their reporting—consistent with traditional journalistic values—a notable portion holds the view that journalists should take an active role in advancing social change, a stance more common among Democrats and younger adults (Shearer et al., 2024). The present study adopts a definition of community journalism that reflects a perspective emphasizing the responsibility to report issues of local concern in ways that foster shared meaning and a sense of community life, which may support social change. In this study, such advocacy refers specifically to the responsibility frame—individual- versus structural-level attribution of responsibility for mass shooting violence—embedded in the reporting.

Contemporarily, community news is undergoing major shifts as both audiences and providers adjust to an increasingly digital environment (Shearer et al., 2024). More people now prefer to receive community news online, while viewership of TV news and readership of print editions have both declined. In fact, most readers of community daily newspapers now access them digitally rather than in print. Additionally, despite the continued disappearance of community news (Degli Esposti et al., 2025)—evidenced by the closure of 130 community news outlets over the past year, averaging about two and a half per week, following 131 closures between 2022 and 2023 (Metzger, 2024)—U.S. adults still tend to view community news and its journalists as valuable (Shearer et al., 2024). A large majority believe that community news is important to the well-being of their communities and that community journalists remain well

connected to their audiences and perform their jobs effectively, such as by reporting accurately (Shearer et al., 2024).

As noted in the Introduction chapter, not only community news but also national news is now frequently consumed online (PRC, 2025). Accordingly, it is meaningful to examine how attributes of digital news messages about mass shootings may influence individuals' related attitudes and behaviors. The present study designed its experimental stimuli to reflect contemporary online news formats. Axios-style non-narrative news messages, discussed earlier, serve as an example of digital non-narrative reporting. In contrast, narrative news formats have not substantially changed in the transition to online platforms, so the narrative stimuli followed a conventional structure, beginning with the scene-setting of a mass shooting incident and then describing how the event unfolded and concluded.

Geographical and Psychological Proximity. As stated, community journalism is responsible to inform local residents of shared aspects of their community (Lowrey et al., 2008). Accordingly, compared to national news perspective, community news perspective typically focusses on issues and events that are geographically close to the community or on distant events that remain relevant to local concerns. When it covers events occurring elsewhere, it often presents them in ways that reduce the psychological distance between the community and the event (Freeman, 2020; Harlow & Chadha, 2021; Wenzel, 2020). For instance, if a mass shooting occurs in another state, community journalists are likely to contextualize the incident by linking it to local safety concerns and aspects of the community structure. In this way, even geographically distant events can feel psychologically close to local audiences.

Therefore, both physical and psychological proximity to an issue or event may have an impact on issue or event-relevant attitudes and behaviors (e.g., Enos, 2016; Gouseti & Jackson,

2015; B. J. Newman, 2015; B. J. Newman & Hartman, 2019; Trope & Liberman, 2010). Rather than examining geographic proximity, the present study focuses on the effects of news message attributes, as discussed earlier; one such attribute is the level of localization in news reporting on mass shootings. In other words, this study investigates how psychological proximity—varying as a function of exposure to different levels of localization in news reporting (i.e., from lower to higher levels: national vs. community news perspective)—may influence audiences' issue-related perceptions and attitudes.

Specifically, the study examines how individuals respond to a U.S. mass shooting incident that occurs outside the state in which they live in order to manipulate psychological proximity through localization in news reporting rather than through actual geographic closeness. In this way, the current research aims to test whether and how individuals respond differently to the same incident after exposure to news coverage that adopts either a community-level or a national-level perspective. Further details are provided in the methodology chapter.

B. J. Newman and Hartman (2019) demonstrated that the impact of mass shooting incidents on public support for stricter gun control policies depends not only on geographic proximity but also on psychological proximity. They found that while people living closer to the affected area showed stronger support for regulation, this effect was further conditioned by the perceived salience of the incident— that is, by factors such as its frequency, scale, and recency, which served as cues that made the incident feel more vivid, immediate, and mentally accessible. The finding underscored the important role of psychological proximity in influencing political attitudes and behaviors, even when physical distance has already played a part (Gouseti & Jackson, 2015).

Other studies have also demonstrated the important role of psychological proximity in influencing responses to mass shooting incidents that occurred outside one's immediate surroundings (e.g., Nordanger et al., 2013; Thoresen et al., 2012). Nordanger and colleagues (2013) found that among participants who had personal connections to someone directly affected, 56% perceived the event as a direct personal concern, while 80% reported a change in worldview. Specifically, they observed a positive correlation between psychological proximity and posttraumatic stress symptoms (PTSS) among younger participants. Thoresen and colleagues (2012) found that following a major violent incident, participants across the country reported feelings of sadness and unreality, and about one in three expressed reduced feelings of safety. Moreover, they found that psychological proximity was more strongly associated with PTSS than geographical proximity to the event.

Individuals may read or hear about incidents of crime, social disorder, and incivility occurring in their community, across their nation, or even globally. The extent to which they perceive these incidents as personally risky may be influenced by their psychological distance from, or proximity to, crime (Gouseti & Jackson, 2015). Some individuals without direct experience of crime have nevertheless been found to express a fear of crime greater than that of others who have been directly affected (Lupton & Tulloch, 1999; Trope & Liberman, 2010). This seemingly incongruous phenomenon can be interpreted through the lens of psychological distance and proximity, which posits that when individuals respond to a distal crime, it is their perceived psychological proximity/distance—rather than their actual experiential distance—that primarily influences their response (Trope & Liberman, 2010).

Fear of Crime. Over the course of fear of crime research, scholars have proposed varying and sometimes conflicting definitions of the concept. Early work by Furstenberg (1971)

distinguished fear of crime from concern, defining the former as an individual's perceived risk of victimization rather than a general assessment of crime's seriousness. Later, Ferraro and LaGrange (1987) provided one of the first systematic conceptualizations, similarly differentiating fear of crime from concern but arguing that it should also be separated from perceived risk, limiting the concept of fear of crime to its emotional nature. Garofalo (1981) described fear of crime as a sense of anxiety, whereas Warr (2000) defined it as an immediate emotional response to perceived danger—distinct from anxiety, which involves anticipation of future or recollection of criminal victimization. Warr (2000) further observed that research on fear of crime at the time exhibited a lack of conceptual clarity.

Responding to Warr's (2000) call for greater conceptual clarity of the fear of crime concept, Etopio and Berthelot (2022) systematically refined its definition, grounding it in emotion theory and supporting it with rigorous methodological procedures. They conducted in-depth qualitative interviews to examine how individuals articulate fear of crime. Insights from interviews indicated that terms such as "fear," "worry," and "concern" were often used interchangeably. Building on these findings, Etopio and Berthelot (2022) conceptualized fear of crime as an affective tendency reflecting emotional reactions to actual or potential criminal events, comprising a blend of affective states ranging from fear and anxiety to worry, nervous tension, and feelings of insecurity or vulnerability. The scale developed from these findings was subsequently tested and demonstrated both convergent and discriminant validity, which further supports the proposed definition.

The present study adopts Etopio and Berthelot's (2022) definition, viewing fear of crime as a blended psychological experience encompassing fear, anxiety, worry, nervous tension, and feelings of insecurity or vulnerability to crime. It is worth noting that this construct is

conceptually distinct from fear as a discrete emotion, which is also examined in this study within the framework of narrative transportation. Although both involve fear-related affect, the discrete emotion of fear refers to an emotional response elicited by the stimulus itself—in this case, gun violence and victims' experiences covered by the news—whereas fear of crime reflects an emotional reaction to one's real-life environment. While news about gun violence may evoke fear of crime, the latter ultimately reflects concern about one's lived environment rather than the message itself.

Prior research suggests that exposure to crime news may heighten individuals' fear of crime (e.g., Näsi et al., 2020; L. Shi, 2018; C. Silva & Guedes, 2022). Näsi and colleagues (2020) examined the relationship between crime news consumption and fear of crime across different media platforms. The results showed that participants who followed crime news through traditional media were 5% more likely to report fear of crime than those who did not regularly follow such news, with the likelihood increasing to 10% among those who also used social media and to 16% among those who additionally relied on alternative media channels such as podcasts and online forums. L. Shi (2018) examined how crime news consumption may relate to fear of crime among international students and found that, after controlling for students' fear of crime in their home countries, greater crime news consumption was associated with higher levels of fear of crime in the U.S.

C. Silva and Guedes (2022), through qualitative semi-structured interviews, examined the potential influence of crime news on participants' fear of crime. However, their findings suggest that this influence does not always occur, as factors—such as the attributes of news messages and individual differences among audiences—could amplify, reduce, or nullify the effect. For example, variables including news credibility, sensationalism, content, communication channels,

localization, and audiences' awareness of misinformation spread have been shown to interact with media exposure in having an impact on fear of crime (Callanan, 2012; Debraelet et al., 2021; Intravia et al., 2017; Koomen et al., 2000; C. Silva & Guedes, 2022; Zhu et al., 2018).

Therefore, establishing a direct causal link between crime news consumption and fear of crime remains challenging (Elmas, 2021). As a dynamic social institution, the media's role in forming fear of crime should be understood as relative rather than absolute (Debraelet et al., 2021). Although scholars have explored the extent and mechanisms through which media exposure may affect fear of crime, some mechanisms remain unclear and warrant further investigation (Curiel & Bishop, 2018; Perkins & Taylor, 2002). In this context, to explore additional mechanisms, the current study examined the possible relationships between localization in news reporting—a message attribute—and fear of crime, as well as between the interaction of localization with two other message attributes (i.e., responsibility framing and content structure) and fear of crime.

The Construal-Level Theory of Psychological Proximity/Distance. As stated earlier, the current research examined localization in news reporting through the lens of Construal-Level Theory. The theory conceptualizes how individuals experience and respond to events that are physically distant from their immediate environment. In light of the theory, two interrelated processes allow individuals to move beyond the immediate "here and now" and respond to issues or events that occur in physically distant places. One process is psychological proximity/distance which reflects how individuals perceive when, where, to whom, and whether an issue or event takes place (Trope & Liberman, 2010, p. 442). Even when an issue or event is not part of their immediate environment—as is often the case with crime—people can still form mental representations of it and respond emotionally or cognitively, despite having little firsthand

experience (Gouseti & Jackson, 2015). In this context, with an interest in a specific criminal type—mass shootings—the current study investigated how audiences may perceive and react to this type of crime as psychologically proximate while reading mass-shooting-related news coverage.

The Construal-Level Theory posits that, based on varying personal relevance along four dimensions—time (i.e., when it occurs), space (i.e., where it occurs), social distance (i.e., who is involved), and hypotheticality (i.e., the likelihood of the event)—individuals develop perceptions of a distant object such as a mass shooting, viewing it as either a social issue or a form of violent event (Gouseti & Jackson, 2015). Accordingly, individuals may construe a mass shooting as psychologically close or distant depending on how they assess these four dimensions (Gouseti & Jackson, 2015). Individuals may construe, respond to, and take action regarding events that unfold in locations that are either close or distant, take place in the past, present, or future, involve people who are either similar or dissimilar to themselves, or have a lower or higher likelihood of occurring (Liberman et al., 2007). Within this framework, the reference point for navigating psychological proximity/distance is one's own "here and now." In other words, objects situated outside this immediate context are regarded as psychologically distant, while those situated within it are viewed as psychologically proximate.

Mental construal serves as another process identified within the Construal-Level Theory, interrelating with psychological proximity/distance in ways that could enable individuals to experience and respond to issues or events that are physically distal (Gouseti & Jackson, 2015). Psychological proximity/distance addresses the dimensions of when an event occurs, where it occurs, to whom it relates, and whether it is likely to occur, while mental construal pertains to how the event itself is represented—that is, what is happening (Gouseti & Jackson, 2015).

Mental construal refers to the mental representations of physically distal objects that individuals form when thinking about objects that are far away in time, space, social distance, or likelihood (Gouseti & Jackson, 2015). According to the Construal-Level Theory, mental construal operates on two levels—higher and lower (Gouseti & Jackson, 2015). A higher-level construal embodies a lens from a more distant perspective that places less weight on situational or contextual specifics, yielding a representation of distal objects that is less tied to detailed circumstances. In contrast, a lower-level construal takes a closer lens that presents varied, context-specific features of distal objects, attending to more detailed aspects of their occurrence.

In the context of the current research, localization in news reporting could be conceptualized within this framework, such that the two levels of localization—community and national news perspectives—would occupy distinct positions corresponding to lower and higher levels of construal and, accordingly, different degrees of psychological proximity. Guided by organizational routines or personal preferences, journalists tend to report an issue or event in ways that reflect their mental construal and perceived psychological proximity (Degli Esposti et al., 2025; Shoemaker & Reese, 1996; Wagner & Collins, 2014). In this respect, operating on different levels of localization with differing priorities and routines, news outlets tend to have distinct perspectives, thereby construing the same issue or event differently.

As discussed earlier, when covering, for example, a mass shooting incident, national news may focus on its significance for the country as a whole. Community news, regardless of whether the incident occurs within or outside their boundaries, may orient their coverage toward different audience groups, emphasizing the issue's relevance to local residents. This phenomenon can be explained by the fact that national news is more likely to adopt a lens that emphasizes the broader significance of an issue for the country as a whole and its big-picture

implications (Fiveable, 2024; Sands, 2019), whereas community news tends to report the same issue as highly relevant to local residents' everyday lives (Carra, 2025; Sands, 2019). Accordingly, community news perspective aligns with a lower-level construal that provides more situational specifics and depicts the incident as a potentially tangible safety concern for local daily life; national news perspective reflects a higher-level construal, downplaying certain situational details as long as broader implications for the federal perspective are maintained.

There has been some empirical support for the Construal-Level Theory (e.g., Andrade-Valbuena et al., 2024; Galinsky et al., 2003; Henderson, Fujita, et al., 2006; Henderson, Trope, et al., 2006; Liberman & Trope, 2008; Liviatan et al., 2008; Mellberg et al., 2022; Trope & Liberman, 2010; Wakslak et al., 2006). Regarding the "time" dimension of psychological proximity/distance, previous research found that being temporally closer to a distal event tended to be associated with construing it in a more concrete, lower-level manner rather than a higher-level one (Liberman & Trope, 2008; Trope & Liberman, 2010). With respect to the "space" dimension, prior research demonstrated that construing a distal event on a higher, more abstract level—rather than on a lower, concrete level— tended to be associated with experiencing greater psychological distance from that event in spatial terms (Henderson, Fujita, et al., 2006; Henderson, Trope, et al., 2006).

For the "social distance" dimension, earlier research discovered that events perceived as happening to others—rather than to oneself or similar others—tended to be associated with a higher-level construal that is less tied to situational specifics, as opposed to a lower-level, more concrete construal. (Galinsky et al., 2003; Liviatan et al., 2008). For the "hypotheticality" dimension, existing research showed that construing a distal event from a more distant perspective—rather than a closer one—tended to be associated with perceiving it as less likely to

occur (Andrade-Valbuena et al., 2024; Wakslak et al., 2006). Further, Mellberg and colleagues (2022) conducted confirmatory factor analyses on psychological proximity and distance, finding that the indicators—physical attack, verbal harassment, verbal abuse, and mugging—scaled well and reliably represented each latent dimension. They also showed that the four dimensions are empirically distinct from one another (i.e., correlated but not interchangeable). These findings provide methodological support for the multidimensional construct of psychological proximity/distance.

Fear of Crime Through a Construal-Level Lens. Why might the Construal-Level Theory offer a useful direction for studying fear of crime? Consider the case of violence committed by strangers (Gouseti & Jackson, 2015). Although most individuals do not directly experience such incidents as victims, they are still able to think about, emotionally respond to, and take precautions regarding the risk of violent victimization. From a Construal-Level Theory perspective, fear of crime reflects how people represent and react to the physically distant event of stranger violence, in ways that relate to psychological proximity/distance and mental construal (Gouseti & Jackson, 2015).

As discussed earlier, the Construal-Level Theory posits that when individuals perceive a distant event—such as stranger violence—as psychologically far, they tend to imagine it as occurring in another place, at another time, and involving people unlike themselves or their close social circles (Gouseti & Jackson, 2015). In the context of the present study, a higher level of localization in news reporting (i.e., community news perspective)—which embodies a lower level of construal—may lead audiences to experience a mass shooting incident as more psychologically proximate. Within this framework, lower psychological proximity and higher-level construal of crime may be associated with reduced fear of crime—that is, a less concrete

concern about personal victimization in one's own neighborhood (Farrall et al., 2009; Girling et al., 2000).

Conversely, when people perceive stranger violence as psychologically proximate, they tend to imagine it unfolding in the near future, in nearby locations, and involving themselves or those similar to them socially (Gouseti & Jackson, 2015). Applied to the present study, encountering news coverage with a higher level of localization (i.e., community news perspective)—which aligns with a lower-level construal—may encourage audiences to view a mass shooting event as psychologically proximal. Under such conditions, exposure to a lower-level construal of the incident, together with a heightened sense of proximity to crime, is more likely to prompt fear of crime—that is, concern about one's own vulnerability to violence, accompanied by worry and anxiety about possible victimization in familiar surroundings, among local people, and in everyday situations (Jackson, 2006).

In this light, the Construal-Level Theory can be applied to the study of crime by viewing crime as a subjective risk—one that individuals appraise and react to through emotional, cognitive, and behavioral processes (Gouseti & Jackson, 2015). A substantial body of criminological research has demonstrated that fear of crime cannot be adequately explained by local crime statistics or actual victimization rates alone (e.g., Camacho Doyle et al., 2022; Farrall et al., 2000; Gouseti & Jackson, 2015; Hale, 1996). In other words, higher crime rates or personal experiences of victimization do not consistently correspond with elevated fear levels. This inconsistency suggests that fear of crime may be related to factors beyond direct or indirect encounters with crime; additional psychological mechanisms may be at work (Gouseti & Jackson, 2015).

Subjective Meaning of Crime. Research on the symbolic communication and interpretation of crime (e.g., Gouseti & Jackson, 2015; Girling et al., 2000; Innes, 2004) indicates that conversations about crime—whether presented in the media or occurring in everyday life—often reflect a dynamic interplay between psychological distance and proximity, as well as between a higher- and a lower-level construal. Rather than reflecting an objective probability of victimization, the "crime" aspect of "fear of crime" functions more as a broader interpretation of meaning and significance (Sparks, 1992). In this sense, when the media or individuals discuss crime, these conversations typically touch on aspects such as where the incident occurred, when it took place, and who was or might be involved. Such elements could lead audiences to perceive the possibility of victimization as psychologically closer or more remote—that is, more or less personally relevant—and, in turn, may relate to how dangerous the crime is perceived to be (Bottoms, 2012; Gouseti & Jackson, 2015).

Where Psychological Proximity Meets the Subjective Meaning of Crime. Through the lens of the subjective meaning of crime, psychological proximity/distance can be understood as a mechanism that helps account for how direct or indirect experiences—including vicarious exposure in the sense used in media psychology—with criminal events may relate to fear of crime. In this regard, psychological proximity to an event that is physically distant may involve conceiving it as occurring in the near future rather than at a later time (i.e., temporal proximity), unfolding in familiar or regularly visited places rather than distant locations (i.e., spatial proximity), happening to oneself or to people similar to oneself rather than to socially distant others (i.e., social proximity), and seeming likely rather than unlikely to occur (i.e., hypothetical proximity; Gouseti & Jackson, 2015).

Factors Associated With Fear of Crime. When interpreting information about a violent incident, the meaning assigned to that event— such as whether it is communicated primarily as a local or national concern—would depend not only on the incident and its circumstances but also on the perceiver and the heuristics they would apply when making sense of it (Gouseti & Jackson, 2015). Within a Construal-Level Theory perspective on fear of crime, these heuristics are conceptualized as psychological proximity/distance, as well as a lower- or a higher-level construal of crime (Gouseti & Jackson, 2015).

Rationale for Using the Construal-Level Theory in Fear-Of-Crime Research. Viewing fear of crime through the lens of Construal-Level Theory carries noteworthy implications for criminological research and policy development (Gouseti & Jackson, 2015). Bringing the Construal-Level Theory into this domain could also introduce new methodological possibilities—especially experimental designs—that are not commonly used in fear-of-crime research. For instance, researchers could assign participants to different groups that receive messages prompting either a lower- or a higher-level construal of crime and then examine how these differing construals relate to perceived psychological proximity to or distance from crime, as well as to fear-of-crime responses (Gouseti & Jackson, 2015). In the present study, an experiment was conducted in which participants were assigned to conditions featuring national and community news messages about mass shootings, corresponding respectively to a higher- and a lower-level construal. This design allowed for the examination of participants' responses to the mass shooting issue and the messages themselves, as well as their fear of crime.

A Pathway From Localization in News Reporting to Psychological Proximity and Fear of Crime. According to the Construal-Level Theory, audiences encounter crime-related information through either a lower- or a higher-level mind-set, through which they perceive

themselves as psychologically closer to or more distant from crime—specifically, how they envision where and when it might happen, to whom, and under what circumstances (Gouseti & Jackson, 2015). Within this framework, the lower the construal level of crime that audiences are exposed to, the closer to crime they may perceive themselves to be psychologically (Trope & Liberman, 2010). To clarify, audiences' lower-level (vs. higher-level) mind-set toward a distant criminal event—prompted by exposure to a lower (vs. higher) construal of the event—is associated with perceiving the event as more psychologically proximal rather than distant (Gouseti & Jackson, 2015). Conversely, when individuals perceive a physically distant criminal event as psychologically remote from themselves, they may envision it as taking place far away, at a later time, and involving people unlike both themselves and their peers (Gouseti & Jackson, 2015).

To examine this assumption, Liviatan and colleagues (2008) designed an experiment in which participants read about a target student whose class schedule was described as either similar to or different from their own, respectively reflecting psychological proximity and distance. Participants were then asked to picture this student performing various activities and to select, for each activity, the description that best captured what the student was doing. Each pair of options contrasted a concrete, lower-level depiction with a higher-level one that placed less emphasis on situational specifics. Researchers found that participants who believed the student had taken classes unlike theirs tended to choose the higher-level descriptions, whereas those who believed the student had taken similar classes were more inclined to select the lower-level ones.

In another study, informed by Construal-Level Theory, Andrade-Valbuena and colleagues (2024) investigated how entrepreneurs' perceptions of psychological proximity to or distance from innovative technologies relate to their opportunity beliefs. Researchers conducted

two experiments: the first examined whether the technologies were perceived as psychologically closer or farther, and the second examined how this perceived proximity or distance might relate to opportunity beliefs. Their findings showed that entrepreneurs evaluated business opportunities—specifically, feasibility and strategic fit—as more favorably when the technologies were experienced as psychologically closer rather than farther.

Therefore, shifting from a higher-level to a lower-level construal of a distant event may correlate with a psychological shift in how the event is mentally located—moving from being psychologically represented as happening far away, at a later time, and to dissimilar others to being psychologically represented as occurring nearby, in the near future, and to oneself or similar others. In this sense, within the context of the current study—which examines how individuals respond to news messages about a U.S. mass shooting incident that occurred outside the state where they live—differing levels of localization in reporting (from lower to higher levels: national vs. community news perspective) inform the following hypothesis concerning the relationship between localization in news reporting and psychological proximity, with national news perspective embodying a higher-level construal of the incident and community news perspective a lower-level construal:

> **H4a:** Exposure to a higher level of localization in news reporting (i.e., community news perspective) about a U.S. mass shooting occurring outside participants' state of residence is expected to increase psychological proximity to the incident, compared to exposure to a lower level of localization in news reporting (i.e., national news perspective).

Extending the discussion of the proposed hypothesis above, prior research has shown that differing degrees of psychological proximity to, or distance from, a covered event could

influence audiences' fear-of-crime responses (Farrall et al., 2009; Girling et al., 2000; Gouseti & Jackson, 2015; Jackson, 2006). Specifically, when crime is experienced as psychologically distant and construed on a higher level, with fewer connections to concrete situational features, fear-of-crime responses tend to be more diffuse and less intense—that is, less situationally grounded concerns about the risk of victimization in one's immediate surroundings (Farrall et al., 2009; Girling et al., 2000). In contrast, when crime is perceived as psychologically close and construed on a lower level with greater situational detail, fear-of-crime reactions may become more explicit and pronounced, involving specific anxieties about one's own vulnerability to violent victimization, with perceived dangers mapped onto nearby places, familiar people, and local situations marked by recognizable cues such as poorly lit streets or unfamiliar individuals (Jackson, 2006).

When individuals perceive a future uncertain event as psychologically close, they tend to regard it as real rather than hypothetical, as occurring in places they frequent rather than in distant locations, as happening in the near future rather than at some vague later time, and as relevant to themselves and those similar to them rather than to dissimilar others (Gouseti & Jackson, 2015). In this setting, perceived likelihood of a negative, uncertain event—such as a mass shooting in the context of the present study—tends to be a strong predictor of fear, worry, and anxiety related to that event (Jackson & Gouseti, 2015; Jackson, 2011, 2013; Warr, 1987; Berenbaum, 2010).

Encountering a lower-level construal of mass-shooting violence may encourage audiences to situate potential harm within their own environment—giving it a concrete face (a potential perpetrator) and a tangible setting (a possible crime scene)—thereby increasing their psychological proximity to the violence (Gouseti & Jackson, 2015). This heightened sense of

closeness may elicit beliefs that certain people or groups pose a heightened risk of harm—for example, in the context of the present study, a mass shooter depicted as having mental illness or unresolved personal grievances, particularly when coverage emphasizes individual-level responsibility, as discussed earlier. Such a construal of crime has been shown to be associated with heightened perceptions of danger—because the possibility of victimization feels more tangible and pressing—and with increased fear-of-crime responses (Gouseti & Jackson, 2015; Huddy et al., 2005, 2007; B. J. Newman & Hartman, 2019). This association appears to hold regardless of individuals' political predispositions (Huddy et al., 2005; Kam & Kinder, 2007; Merolla & Zechmeister, 2009; B. J. Newman & Hartman, 2019).

Therefore, an individual's perceived psychological closeness to crime, along with the specificity of their mental images of "crime cues," tend to be associated with their fear-of-crime responses to perceived vulnerability to victimization (Gouseti & Jackson, 2015). Mellberg and colleagues (2022) examined how different dimensions of psychological proximity and distance may relate to fear of crime, finding that temporal, social, and hypothetical forms of proximity or distance were significantly associated with fear-of-crime responses. Spatial distance showed the anticipated pattern but did not reach statistical significance. Prior research has elaborated on the role of spatial perceptions—how individuals understand both broader environments and their immediate surroundings—in relation to fear of crime and personal risk assessments, with some studies showing that these perceptions were associated with crime-related worry (Chataway & Mellberg, 2021; Irvin-Erickson et al., 2020; Solymosi et al., 2015; Chataway et al., 2017; Engström & Kronkvist, 2021).

Within this context, Mellberg and colleagues' (2022) nonsignificant finding may partly stem from the broad phrasing used in their spatial distance items. Some respondents in their

study noted that the questions were vague and that the intended reference point was unclear. For example, they were unsure whether "far away" referred to another part of their own country or to locations abroad. Accordingly, the researchers recommended that future studies consider wording spatial distance items more directly—for example, by asking respondents whether they believe they might become a victim of crime in their present location. Such an approach avoids manipulating spatial distance while maintaining an egocentric frame of reference. This recommendation is consistent with prior studies that have demonstrated associations between psychological proximity/distance and fear-of-crime responses; these studies typically asked participants to evaluate their likelihood of victimization within their immediate surroundings (Chataway et al., 2017; Chataway & Mellberg, 2021; Engström & Kronkvist, 2021; Irvin-Erickson et al., 2020; Solymosi et al., 2015). This recommendation was adopted in the present study and is discussed in greater detail in the Methodology chapter. Building on prior scholarship on fear of crime within the framework of Construal-Level Theory, the current research advances the following hypothesis regarding the relationship between psychological proximity and fear of crime:

H4b: Greater psychological proximity to covered mass shooting violence is expected to be associated with increased fear of crime.

Research in the Construal-Level Theory has demonstrated that variations in construal level and psychological proximity/distance may jointly give rise to downstream effects that influence how people make decisions, engage with information, form beliefs, behave, and experience emotions (Soderberg et al., 2015; Trope & Liberman, 2010). These outcomes have been of interest across diverse domains, such as consumer decision-making (Zhao & Xie, 2011), personalized advertising (Shan et al., 2017), and public responses to climate change (Chang et

al., 2015; Spence et al., 2012). The present study aims to contribute to this field by examining how exposure to different levels of localization in mass-shooting news reporting (from lower to higher levels: national vs. community news perspective) corresponding respectively to a higher- and a lower-level construal—and perceived psychological proximity/distance may together shape fear-of-crime responses.

Considering H4a and H4b together, a mediation pathway appears logically plausible. Specifically, exposure to a higher level of localization in crime news reporting (i.e., community news perspective)—which corresponds to a lower-level construal—may increase audiences' psychological proximity to crime, which in turn may heighten fear of crime. This inference has received some empirical support from studies showing that exposure to a lower-level construal of crime may lead individuals to experience the event as psychologically closer and more concretely detailed, which would prompt them to envision its potential consequences—such as pain, trauma, and loss—and, in turn, heighten fear-of-crime responses (e.g., Corby et al., 2014; DeLisi et al., 2014; Gouseti & Jackson, 2015; Mears et al., 2013).

Therefore, lower-level construal of crime emphasizes concrete, situation-rich details, which could draw individuals' attention to their own immediate surroundings (Gouseti & Jackson, 2015). Under this construal, crime is no longer represented as a distant phenomenon stripped of situational detail—something that happens elsewhere, at another time, or to dissimilar others—but instead as a specific event tied to particular situational characteristics (Gouseti & Jackson, 2015). In this context, audiences may perceive crime as psychologically close and view certain negative events as potentially dangerous, mapping the perceived risk of crime onto their own environment and, in turn, experiencing heightened feelings of fear of crime (Gouseti & Jackson, 2015). Following this logic, the current research proposes a mediation pathway in

which exposure to a higher level of localization in news reporting (i.e., community news perspective) is expected to increase psychological proximity, which in turn is expected to heighten fear of crime.

H4c: Exposure to a higher level of localization in news reporting (i.e., community news perspective) about a U.S. mass shooting occurring outside participants' state of residence is expected to increase psychological proximity to the incident, which in turn is expected to heighten fear of crime, compared to exposure to a lower level of localization in news reporting (i.e., national news perspective).

Localization in News Reporting and Civic Engagement Intentions. Civic engagement involves an outward-looking orientation—extending past close personal networks and into the public, market, and civil spheres (Amnå, 2012, p. 613). Such outward-looking engagement reflects the practice of active citizenship (Lister, 2007). Accordingly, the essence of civic engagement is a commitment to move beyond one's private circle and to support the needs of fellow community members (Zaff et al., 2010). Grounded in a broadened sense of responsibility toward one's community, civic engagement encompasses a wide array of actions—such as cultivating civic awareness, contributing to the development of civil society, and supporting shared public resources (Ajaps & Obiagu, 2021). In this regard, civic engagement concerns the ways active citizens take part in communal life to enhance others' well-being or to guide the community's future development (Adler & Goggin, 2005).

Ekman and Amnå (2022) further refined the definition of civic engagement by distinguishing it from political participation. Political participation often appears similar to, and has at times been conflated with, civic engagement. This conceptual overlap has contributed to academic critiques suggesting that civic engagement is an overstretched notion or even a

buzzword (Berger, 2009). In response to these critiques, Ekman and Amnå (2022) clarified that although political participation likewise involves an outward-looking orientation and forms part of active citizenship, it places emphasis on political dimensions, with the aim of formally influencing the political and parliamentary domain. Examples include voting in elections, campaigning for a candidate or party, and joining political parties.

In contrast, civic engagement highlights activities that are not formally tied to the political or parliamentary sphere but are pre-political or participation-relevant. These activities have the potential to influence the actions of individuals in positions of authority—who are not necessarily politicians—and to encourage later political participation in support of a healthy democratic society (Berger, 2009; Binder, 2021; Ekman & Amnå, 2022). Forms of civic engagement range from sending letters to local newspapers about community issues and expressing views on social media to donating to school-building initiatives, clean-water projects, or medical research on cancer and heart disease (Ekman & Amnå, 2022). Specifically, associations involved in civic engagement can be grouped into three types, based on their primary area of focus (van der Meer et al., 2009): (1) leisure organizations such as sports or recreational clubs; (2) interest-based organizations that represent members' concerns in arenas like labor or consumer affairs, including trade unions and consumer groups; and (3) activist organizations, such as environmental groups aimed at influencing individual and societal behavior.

Beyond conceptual distinctions, researchers have emphasized the importance of considering civic engagement separately when evaluating whether citizenship is active or inactive. Previous studies have documented declines in political participation—particularly in voting—and concluded that these trends signal eroded public trust in representative democracy

(Willeck & Mendelberg, 2022; Kostelka & Blais, 2021; Pharr & Putnam, 2000; Norris, 2002). Such conclusions risk being incomplete if they do not account for forms of civic engagement, which embody active citizenship through activities that operate outside the formal political and parliamentary domain (Adler & Goggin, 2005; Ekman & Amnå, 2022).

Citizens across different ages and backgrounds take part in various forms of social engagement that occur outside the formal political sphere yet still have the potential to influence political outcomes (Ekman & Amnå, 2022). Through activities that are not directly related to formal politics, individuals have opportunities to help improve social conditions that matter to people beyond their immediate family and close friends (van Deth, 2001; Zukin et al., 2006; Theocharis & van Deth, 2019). In this respect, democracies may function well despite modest levels of political participation if they sustain robust forms of non-political engagement that can be redirected into political action when needed, along with political institutions capable of handling such situational political engagement and responding effectively (Berger, 2009).

The present study examined civic engagement intentions in contemporary democracies from the perspective of localization in news reporting. Specifically, compared to national news, this study investigated the potential of community news to prompt civic engagement intentions that, as defined, could help promote social networks and communal ties linking individuals to broader structures of power in ways that strengthen democratic life (Gil de Zúñiga et al., 2016). Ultimately, civic engagement intentions are rooted in community and trust (Ekman & Amnå, 2022). Through civic engagement intentions, individuals are encouraged to act as active participants in both personal and communal spheres, benefiting communities through co-developed solutions to social and civic challenges, stronger community ties, and expanded

opportunities for participatory decision-making and democratic governance within local institutions (Shaw et al., 2014, p. 10).

Placing civic engagement intentions within the framework of Construal-Level Theory, exposure to a higher level of localization in news reporting (i.e., community news perspective)—which reflects a lower-level construal of crime—is expected to increase perceived proximity to crime, compared to exposure to a lower level of localization (i.e., national news perspective), which reflects a higher-level construal. In turn, this increased proximity may lead audiences to focus on the specific steps or means needed to address, prevent, or respond to crime, potentially prompting follow-up actions, including civic engagement (Gouseti & Jackson, 2015; Trope et al., 2007). In addition, the definition of civic engagement suggests a potential positive association with a higher level of localization in news reporting. Specifically, civic engagement is defined around the unit of community, in which civically engaged individuals collaborate to improve the civic life of their communities and cultivate the knowledge, skills, values, and motivation needed to contribute to that improvement, thereby enhancing community well-being through processes that are non-political or not formally tied to political institutions (Ehrlich, 2000).

Individuals who are civically engaged tend to demonstrate an elevated sense of responsibility toward their communities, participating in various activities that cultivate civic awareness, contribute to the development of civil society, and support the common good (Putnam, 2000). In this view, civic engagement concerns the ways in which active citizens participate in community life with the aim of improving collective well-being or guiding future developments of the community (Adler & Goggin, 2005). Taking this consideration into account in the context of the current study, the higher the level of localization in news reporting—that is, the more the reporting draws audiences psychologically closer to their local environment—the

greater the civic engagement audiences may intend to exhibit. Specifically, community reporting perspective on mass shootings is likely to elicit greater civic engagement intentions in community development, whereas national reporting perspective may prompt less engagement intentions.

In a study by Liviatan and colleagues (2008), participants exposed to a lower-level construal of an object were found to take a psychologically closer look at it and to focus more on its means-oriented features—the concrete steps or methods for doing something helpful or avoiding harm—compared with those exposed to a higher-level construal. Civic engagement intentions in community development, including efforts to alleviate mass shooting violence in the context of the present study, can be viewed as an example of such means-oriented responses. Accordingly, exposure to a higher level of localization in news reporting (i.e., community news perspective), which reflects a lower-level construal, along with increased psychological proximity, is expected to increase civic engagement intentions, compared to exposure to a lower level of localization in news reporting (i.e., national news perspective). The corresponding hypotheses are then proposed:

H4d: Greater psychological proximity to covered mass shooting violence is expected to be associated with increased civic engagement intentions.

H4e: Exposure to a higher level of localization in news reporting (i.e., community news perspective) about a U.S. mass shooting occurring outside participants' state of residence is expected to increase psychological proximity to the violence covered, which in turn is expected to heighten civic engagement intentions, compared to exposure to a lower level of localization in news reporting (i.e., national news perspective).

Interaction Among Localization in News Reporting, Content Structures, and Responsibility Framing. Some research has demonstrated that exposure to a higher-level construal of an issue—reflected, in the context of the current study, in a lower level of localization in news reporting—is related to greater structural-level responsibility attributions for that issue, compared with exposure to a lower-level construal—reflected, in the context of the current study, in a higher level of localization in reporting (e.g., Girling et al., 2001; Gouseti & Jackson, 2015; Heber, 2014; Leverentz, 2012; Liviatan et al., 2008; Rim et al., 2013; Trope & Liberman, 2010; Unnever & Cullen, 2012). Shifting from a higher-level to a lower-level construal of an object—such as crime—involves a change in focus from broad, structural conditions to more person-specific aspects of the issue (Trope & Liberman, 2010).

To expound, when individuals psychologically experience a distal violent event as far in time, space, social distance, or likelihood, they are more inclined to interpret it through an abstract, higher-level lens, emphasizing factors such as societal causes, broader implications, and general solutions (Gouseti & Jackson, 2015). In this sense, individuals are more likely to conceive of stranger violence, for example, in terms of its substance and defining features—that is, fundamental features that remain stable across different instances of violence—and, in turn, more readily link it to other abstract social concerns, such as moral erosion and increased inequality (Gouseti & Jackson, 2015).

By contrast, when individuals psychologically experience a distal event as closer, they are more likely to interpret it through a concrete, lower-level lens, attending to person-specific causes as well as situation-dependent implications and solutions (Gouseti & Jackson, 2015). From this perspective, individuals are more likely to conceive of stranger violence in a more concrete and detailed manner—that is, by focusing on situation-dependent features that vary

across different cases of violence—and, in turn, more readily map it onto specific perpetrators, victims, and crime settings (Gouseti & Jackson, 2015).

Exposure to a higher-level construal of crime, such as terrorism, tends to direct individuals' attention toward broader and more abstract social conditions, such as inequality, fanaticism, social exclusion, fundamentalism, and hate (Gouseti & Jackson, 2015, p. 33). In contrast, exposure to a lower-level construal would shift attention to more concrete harms and individualized details—such as experiences of victims and their families, perpetrators' personal backgrounds, and person-specific solutions for rehabilitation and prevention (Gouseti & Jackson, 2015).

In a study conducted by Liviatan et al. (2008), participants presented with a lower-level construal of an object tended to attend more to micro-level, situational features, whereas those presented with a higher-level construal shifted attention toward broader, macro-level considerations. These considerations reflect an underlying concern about crime driven by its perceived relevance as a sociopolitical challenge and situated within a constellation of broader societal problems (Girling et al., 2000). In this respect, and in the context of the present study, a relationship is expected to exist between localization in news reporting (as reflected in lower and higher construal levels) and audiences' causal and treatment responsibility attributions for the mass shooting issue.

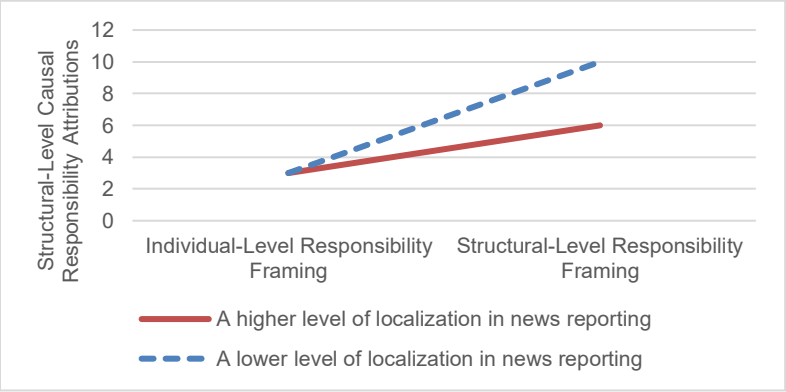
In particular, exposure to a higher level of localization in news reporting (i.e., community news perspective, as reflected in a lower-level construal) is expected to increase individual-level responsibility attributions, compared with exposure to a lower level of localization in news reporting (i.e., national news perspective, as reflected in a higher-level construal). Further, as previously discussed, news coverage that becomes more localized is expected to increase

perceived psychological proximity to the issue relative to less localized coverage. Therefore, the present study hypothesizes an interaction between localization in news reporting and responsibility framing in relation to audiences' causal and treatment responsibility attributions, as illustrated in Figures 11, 12, and 13:

H5a: Localization in news reporting and responsibility framing are expected to interact in their association with participants' tendency to view mass shootings as primarily caused by structural-level factors, such that this tendency will be lower for news messages that use a higher level of localization in news reporting or individual-level responsibility framing, and highest for messages that use a lower level of localization in news reporting and structural-level responsibility framing.

Figure 5

Hypothesized Interaction between Localization in News Reporting and Responsibility Framing in Relation to Structural-Level Causal Responsibility Attributions

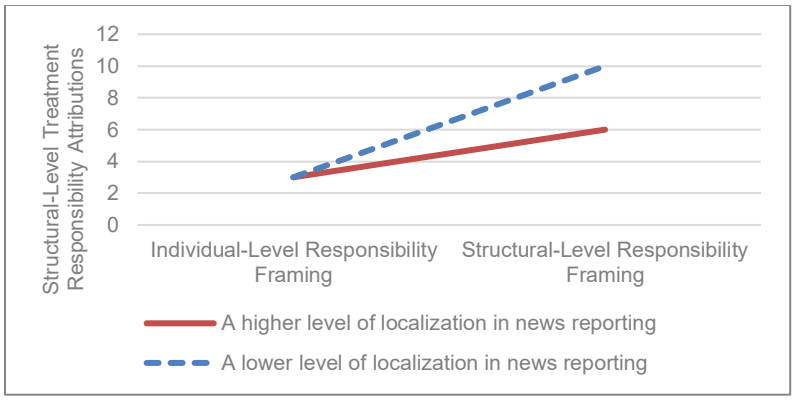


H5b: Localization in news reporting and responsibility framing are expected to interact in their association with participants' tendency to believe that mass shootings should primarily be addressed through structural-level solutions, such that this tendency will be lower for news messages that use a higher level of localization in news reporting or individual-level responsibility framing, and highest for

messages that use a lower level of localization in news reporting and structural-level responsibility framing.

Figure 6

Hypothesized Interaction between Localization in News Reporting and Responsibility Framing in Relation to Structural-Level Treatment Responsibility Attributions



From the perspective of Construal-Level Theory, the effects of responsibility framing on responsibility attributions can be understood in terms of how individual-level versus structural-level responsibility framing may differentially affect psychological proximity. In particular, exposure to structural-level causal and remedial factors of mass shooting violence is expected to increase psychological proximity, thereby directing attention to broader social conditions such as social disorganization and economic deprivation (Heber, 2014; Leverentz, 2012; Unnever & Cullen, 2012). Conversely, exposure to individual-level aspects is expected to be associated with greater psychological proximity manifested in a more vivid and detailed mode of mental representation, linking violence to signs of disorder such as vandalism, drug use, youth loitering, street prostitution, and other context-specific conditions (Gouseti & Jackson, 2015).

In the case of mass shooting violence, when exposed to individual-level responsibility framing, audiences are likely to adopt a psychologically closer perspective on the issue, focusing on more concrete and situational factors—such as mental illness and personal grievances or

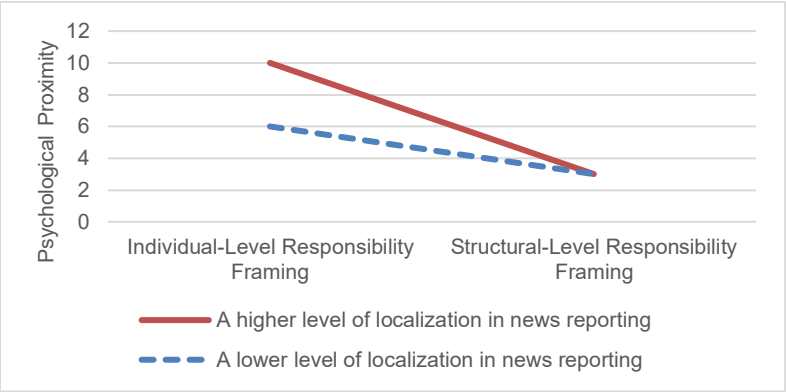
vendettas—and viewing the issue as relatively more isolated and distinct. By contrast, exposure to structural-level responsibility framing is expected to encourage a more psychologically distant perspective, focusing on more abstract and systemic factors—including social disorganization and economic deprivation—and viewing the issue as part of an interconnected system of broader sociopolitical dysfunctions. It is therefore reasonable to expect that exposure to news messages about the mass shooting issue that use individual-level responsibility framing will be associated with greater psychological proximity than exposure to messages that use structural-level responsibility framing (Gouseti & Jackson, 2015).

Viewed in this light, an interaction between localization in news reporting and responsibility framing in relation to psychological proximity could be expected, given the previously proposed relationship that a higher level of localization in news reporting (i.e., community news perspective)—will be associated with greater perceived psychological proximity to the covered issue than a lower level of localization in news reporting (i.e., national news perspective). The corresponding hypothesis, as shown in Figure 14, is therefore stated below:

H5c: Localization in news reporting and responsibility framing are expected to interact in their association with participants' tendency to perceive mass shooting violence as psychologically proximate, such that this tendency will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.

Figure 7

Hypothesized Interaction between Localization in News Reporting and Responsibility Framing in Relation to Psychological Proximity

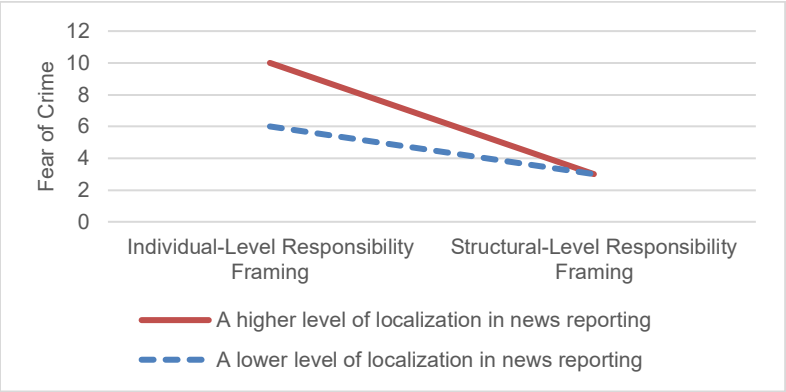


Moreover, In this context, an interaction between localization in news reporting and responsibility framing in relation to fear of crime may be expected, given the previously proposed relationships: (1) psychological proximity is expected to be positively related to fear of crime; (2) exposure to news messages with individual-level responsibility framing will be related to increased psychological proximity to the covered issue than exposure to structural-level responsibility framing; (3) a higher level of localization in news reporting (i.e., community news perspective) will be associated with greater perceived psychological proximity to the covered issue than a lower level of localization in news reporting (i.e., national news perspective). The corresponding hypothesis, as illustrated in Figure 15, is therefore proposed as follows:

H5d: Localization in news reporting and responsibility framing are expected to interact in their association with participants' fear of crime, such that fear of crime will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.

Figure 8

Hypothesized Interaction between Localization in News Reporting and Responsibility Framing in Relation to Fear of Crime



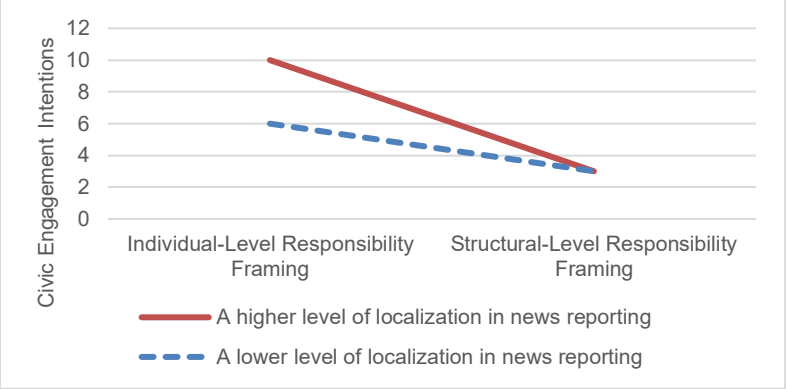
By the same reasoning, an interaction between localization in news reporting and responsibility framing in relation to civic engagement intentions may be expected, given the previously proposed relationships: (1) psychological proximity is expected to be positively related to civic engagement intentions; (2) exposure to news messages with individual-level responsibility framing will be associated with greater psychological proximity to the covered issue than exposure to structural-level responsibility framing; and (3) a higher level of localization in news reporting (i.e., community news perspective) will be associated with greater civic engagement intentions than a lower level of localization in news reporting (i.e., national news perspective). Accordingly, the corresponding hypothesis, as illustrated in Figure 16, is developed as follows:

H5e: Localization in news reporting and responsibility framing are expected to interact in their association with participants' civic engagement intentions, such that civic engagement intentions will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest

for messages that use a higher level of localization in news reporting and individual-level responsibility framing.

Figure 9

Hypothesized Interaction between Localization in News Reporting and Responsibility Framing in Relation to Civic Engagement Intentions



Having demonstrated the potential existence of an interaction between localization in news reporting and responsibility framing on the central outcome variables associated with each, the present study extends this line of inquiry to suggest that a similar interaction between localization in news reporting and content structures may also be expected, based on prior related scholarship (e.g., Cho et al., 2012; M. C. Green, 2021; Gouseti & Jackson, 2015; Leung et al., 2017; Lu et al., 2019). Above all, the relationship between these two concepts has been suggested to rest on a shared definitional foundation. Specifically, both concepts involve a sense of feeling closer to an object that is not in one's immediate environment, whether non-fictional or fictional (M. C. Green, 2021; Gouseti & Jackson, 2015).

Within Construal-Level Theory, which provides a framework for understanding localization in news reporting, increased psychological proximity and a lower-level mental construal serve as two mechanisms that could psychologically transcend individuals from the "here and now" to issues or events situated in the "there and then" (Gouseti & Jackson, 2015).

This process closely resembles narrative transportation, a framework for understanding content structure (narrative vs. non-narrative), which proposes that narratives could transport audiences into a story world in which they tend to lose awareness of time and their surrounding environment, become emotionally engaged in the storyline, and feel psychologically proximate to and connected with the protagonists (M. C. Green, 2021).

Therefore, from a theoretical perspective, an interaction between localization in news reporting and content structures is expected. Specifically, a higher level of localization (i.e., community news perspective) in reporting combined with a narrative content structure is likely to produce the greatest degree of psychological proximity, whereas a lower level of localization in news reporting (i.e., national news perspective) or a non-narrative content structure is likely to be associated with a weaker sense of psychological proximity. Some empirical findings support this theoretical proposition (e.g., Cho et al., 2012; Leung et al., 2017; Lu et al., 2019). In Lu and colleagues' (2019) study, participants who showed stronger identification with the narrative's protagonist tended to engage in physical activities—such as running, jumping, and playing—that the protagonist performed, while some even reported engaging in physical activities out of a desire to become physically capable of overcoming the antagonist. This identification reflects psychological connection and closeness with characters in the narrative (M. C. Green, 2021).

Cho and colleagues (2012) demonstrated the role of perceived realism in enhancing narrative transportation. Their findings showed that multiple dimensions of perceived realism—the narrative's plausibility (i.e., the possibility of occurrence), typicality (i.e., whether events fall within the scope of audiences' personal experience), factuality (i.e., whether the narrative is perceived as reflecting real-world facts), narrative consistency (i.e., the congruency and coherence of the storyline), and perceptual quality (i.e., the overall quality of the narrative in

telling a rich and engaging story)—had the potential to foster narrative transportation, through which audiences experienced psychological proximity to the world created by the storyline.

Leung and colleagues (2017) examined the function of mental imagery in narrative transportation as a mechanism for promoting healthy behavior change. They found that participants who read the manga-style comic promoting fruit intake showed greater improvements in their expectations about fruit intake than those who read an informational newsletter promoting fruit intake, and also reported elevated narrative transportation and enjoyment compared with participants who read either the informational fruit newsletter or the unrelated newsletter about ancient Greece (i.e., the attention-control group). Leung and colleagues (2017) interpreted these findings by suggesting that the visually rich format of manga comics fosters vivid mental imagery, which in turn prompts audiences to psychologically connect with the narrative and their own experiences, thereby drawing audiences closer to the storyline.

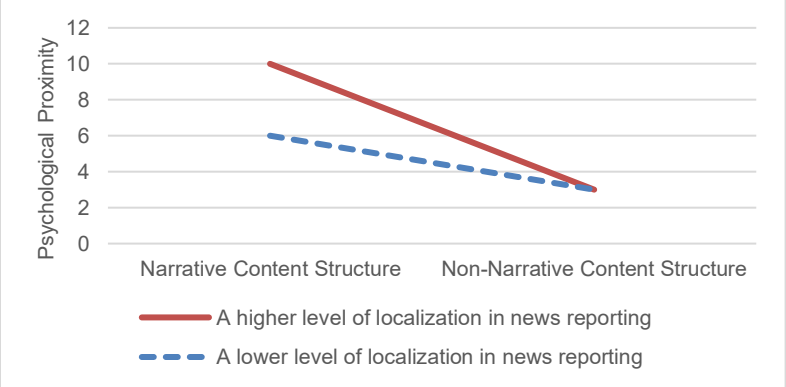
Therefore, the interaction between localization in news reporting and content structure is expected to exist in relation to psychological proximity, such that the combination of a higher level of localization in news reporting and a narrative content structure is associated with increased psychological proximity, whereas a lower level of localization in news reporting combined with a non-narrative content structure is associated with reduced psychological proximity. Moreover, by the same token, given the previously proposed positive relationships between psychological proximity and fear of crime, between psychological proximity and civic engagement intentions, and between localization in news reporting and psychological proximity, the interaction between localization in news reporting and content structure is expected to exist

in relation to fear of crime and civic engagement intentions, respectively. On this basis, the following hypotheses are proposed, as illustrated in Figures 17, 18, and 19:

H6a: Localization in news reporting and content structures are expected to interact in their association with participants' tendency to perceive mass shooting violence as psychologically proximate, such that this tendency will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.

Figure 10

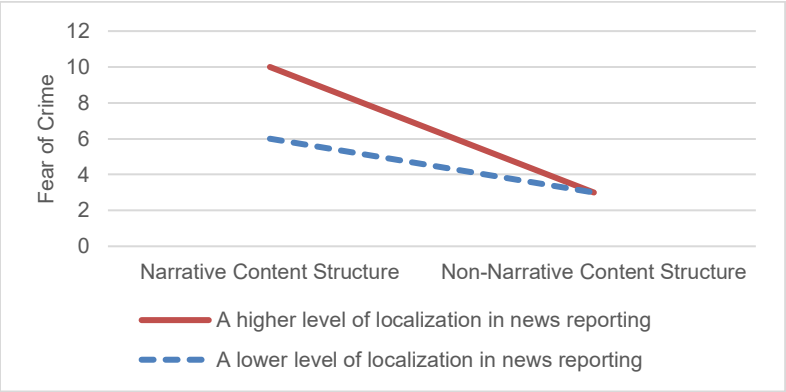
Hypothesized Interaction between Localization in News Reporting and Content Structures in Relation to Psychological Proximity



H6b: Localization in news reporting and content structures are expected to interact in their association with participants' fear of crime, such that fear of crime will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.

Figure 11

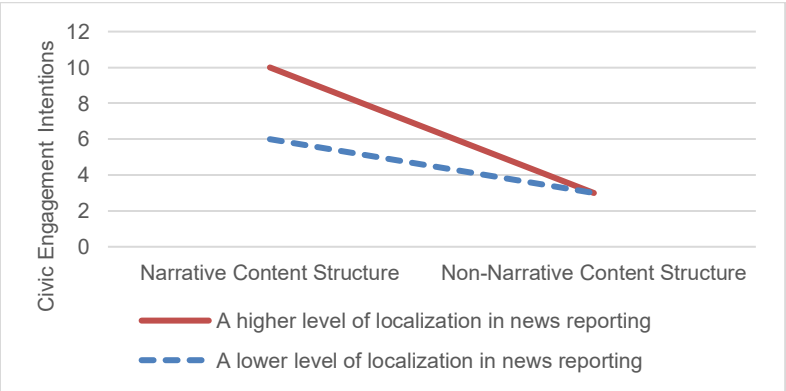
Hypothesized Interaction between Localization in News Reporting and Content Structures in Relation to Fear of Crime



H6c: Localization in news reporting and content structures are expected to interact in their association with participants' civic engagement intentions, such that civic engagement intentions will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.

Figure 12

Hypothesized Interaction between Localization in News Reporting and Content Structures in Relation to Civic Engagement Intentions



Building on the previously proposed relationships between content structures and, respectively, narrative engagement and discrete emotions, prior scholarship on Construal-Level Theory has suggested the potential for an interaction between localization in news reporting and content structures in relation to narrative engagement and discrete emotions (i.e., anger, fear, and hopefulness in the context of the current study; e.g., Girling et al., 2000; Gouseti & Jackson, 2015; Heber, 2014; Leverentz, 2012; Unnever & Cullen, 2012). This body of research has shown that construal levels are likely associated with both narrative engagement and discrete emotions. As demonstrated earlier, compared with exposure to a higher-level construal of a distal event, exposure to a lower-level construal of the same event could lead individuals to experience it as more immediate and proximal across temporal, spatial, social, and reality-related dimensions, thereby potentially encouraging a more concrete mode of engagement with the vividly perceived event and eliciting stronger emotional responses (e.g., Girling et al., 2000; Gouseti & Jackson, 2015; Heber, 2014; Leverentz, 2012; Unnever & Cullen, 2012).

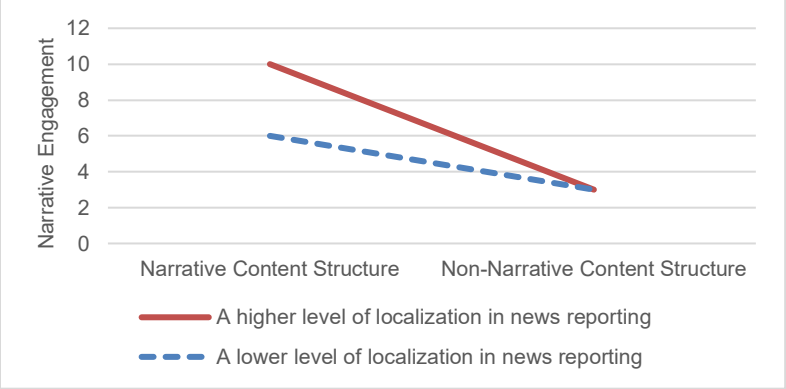
Thus, in the context of the present study, a lower-level construal of the mass shooting issue—reflected in a higher level of localization in news reporting—is expected to be associated with greater narrative engagement and stronger discrete emotions, including anger, fear, and hopefulness, than a higher-level construal of the mass shooting issue—reflected in a lower level of localization in news reporting. Hypotheses regarding the interaction between localization in news reporting and content structure in their association with narrative engagement and discrete emotions can then be developed, as shown in Figures 20 and 21, by taking into account the previously proposed relationships: (1) exposure to narratives will be associated with greater narrative engagement than exposure to non-narratives; and (2) exposure to narratives will be

associated with stronger discrete emotions—namely, anger, fear, and hopefulness—compared with exposure to non-narratives.

H6d: Localization in news reporting and content structures are expected to interact in their association with participants' narrative engagement, such that narrative engagement will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.

Figure 13

Hypothesized Interaction between Localization in News Reporting and Content Structures in Relation to Narrative Engagement



H6e: Localization in news reporting and content structures are expected to interact in their association with participants' discrete emotion of anger, such that anger will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.

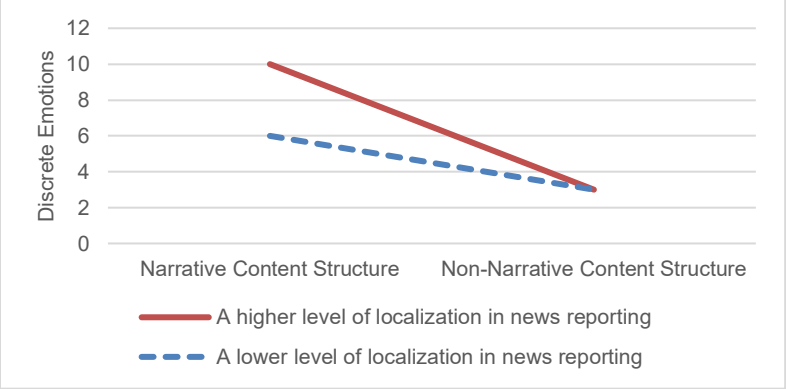
H6f: Localization in news reporting and content structures are expected to interact in their association with participants' discrete emotion of fear, such that fear will be lower for news messages that use a lower level of localization in news reporting or

are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.

H6g: Localization in news reporting and content structures are expected to interact in their association with participants' discrete emotion of hopefulness, such that hopefulness will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.

Figure 14

Hypothesized Interaction between Localization in News Reporting and Content Structures in Relation to Discrete Emotions



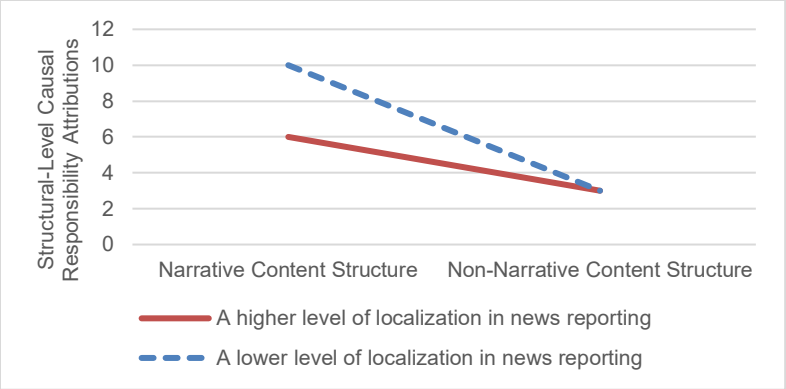
In the same vein, building on the previously proposed relationship between localization in news reporting and people's causal and treatment responsibility attributions, the literature reviewed in the section on narrative transportation has suggested the potential for an interaction between localization in news reporting and content structure in influencing responsibility attributions (e.g., Betsch et al., 2011, 2015; Iyengar & Kinder, 1987; Lazić & Žeželj, 2021; Niederdeppe et al., 2011; Niederdeppe et al., 2014; Zhou & Niederdeppe, 2016). This line of research has indicated a relationship between content structure and responsibility attributions.

Specifically, exposure to messages with a narrative content structure has been demonstrated to be associated with greater structural-level causal and treatment responsibility attributions, compared with exposure to messages with a non-narrative content structure (e.g., Betsch et al., 2011, 2015; Iyengar & Kinder, 1987; Lazić & Žeželj, 2021; Niederdeppe et al., 2011; Niederdeppe et al., 2014; Zhou & Niederdeppe, 2016). Moreover, as elaborated in the proposed relationship between localization in news reporting and responsibility attributions, a higher level of localization in news reporting (i.e., community news perspective) is expected to be associated with greater individual-level causal and treatment responsibility for the reported issue (i.e., the mass shooting issue in the present study), compared to exposure to a lower level of localization in news reporting (i.e., national news perspective). Accordingly, the hypothesis regarding the interaction between localization in news reporting and content structures in relation to responsibility attributions is developed below, as illustrated in Figures 22, 23, and 24.

H6h: Localization in news reporting and content structures are expected to interact in their association with participants' tendency to view mass shootings as primarily caused by structural-level factors, such that this tendency will be lower for news messages that use a higher level of localization in news reporting or are non-narrative, and highest for messages that use a lower level of localization in news reporting and are narrative.

Figure 15

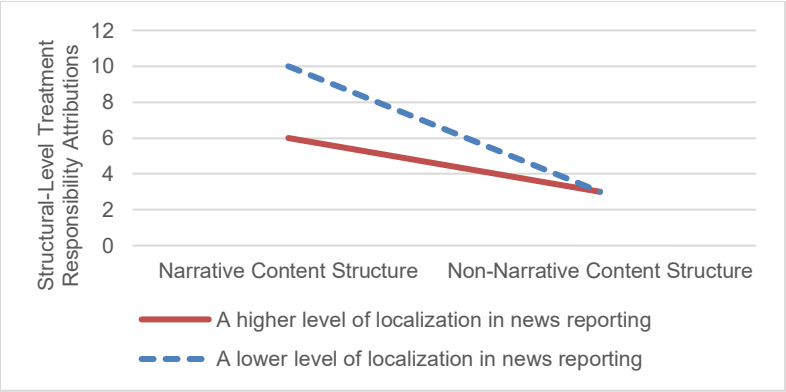
Hypothesized Interaction between Localization in News Reporting and Content Structures in Relation to Structural-Level Causal Responsibility Attributions



H6i: Localization in news reporting and content structures are expected to interact in their association with participants' tendency to believe that mass shootings should primarily be addressed through structural-level solutions, such that this tendency will be lower for news messages that use a higher level of localization in news reporting or are non-narrative, and highest for messages that use a lower level of localization in news reporting and are narrative.

Figure 16

Hypothesized Interaction between Localization in News Reporting and Content Structures in Relation to Structural-Level Treatment Responsibility Attributions



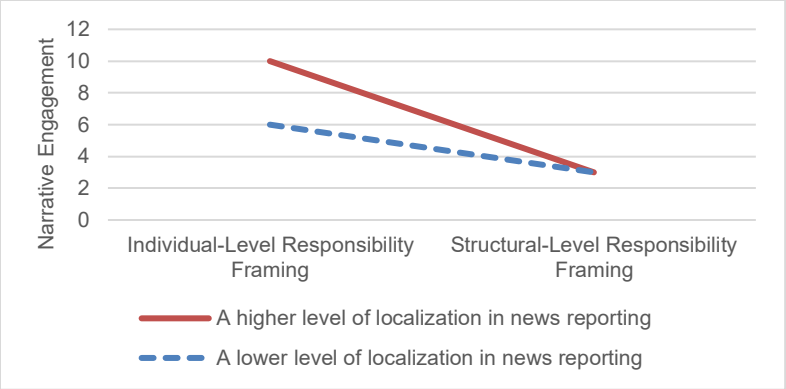
It is reasonable to expect an interaction between localization in news reporting and responsibility framing in relation to narrative engagement and discrete emotions, given the previously demonstrated relationships between each of these two message features and each of

these two outcomes (e.g., Betsch et al., 2011, 2015; Gouseti & Jackson, 2015; Heber, 2014; Lazić & Žeželj, 2021). Specifically, previous work has shown that localization in news reporting is associated with both narrative engagement and discrete emotions, and that responsibility framing is likewise associated with both outcomes. A higher level of localization in news reporting is expected to increase narrative engagement and strengthen discrete emotions compared with exposure to a lower level of localization in news reporting (e.g., Girling et al., 2000; Gouseti & Jackson, 2015; Heber, 2014; Leverentz, 2012; Unnever & Cullen, 2012), whereas exposure to structural-level responsibility framing is expected to reduce narrative engagement and weaken discrete emotions (e.g., Betsch et al., 2011, 2015; Iyengar & Kinder, 1987; Lazić & Žeželj, 2021) compared with exposure to individual-level responsibility framing. Accordingly, hypotheses regarding the interaction between localization in news reporting and responsibility framing are developed below, as shown in Figures 25 and 26:

H7a: Localization in news reporting and responsibility framing are expected to interact in their association with participants' narrative engagement, such that narrative engagement will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.

Figure 17

Hypothesized Interaction between Localization in News Reporting and Responsibility Framing in Relation to Narrative Engagement



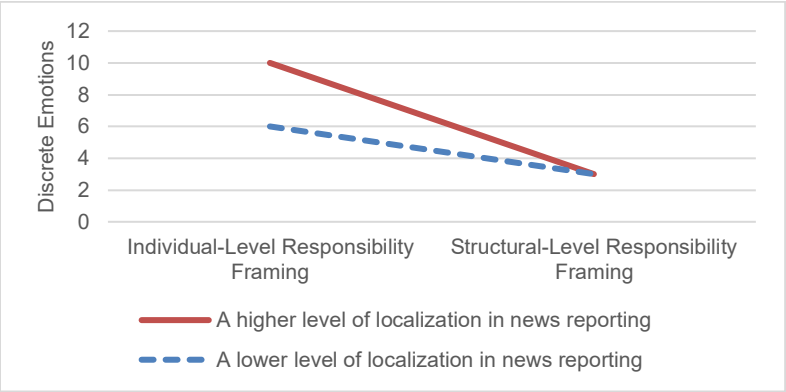
H7b: Localization in news reporting and responsibility framing are expected to interact in their association with participants' discrete emotion of anger, such that anger will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.

H7c: Localization in news reporting and responsibility framing are expected to interact in their association with participants' discrete emotion of fear, such that fear will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.

H7d: Localization in news reporting and responsibility framing are expected to interact in their association with participants' discrete emotion of hopefulness, such that hopefulness will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.

Figure 18

Hypothesized Interaction between Localization in News Reporting and Responsibility Framing in Relation to Discrete Emotions

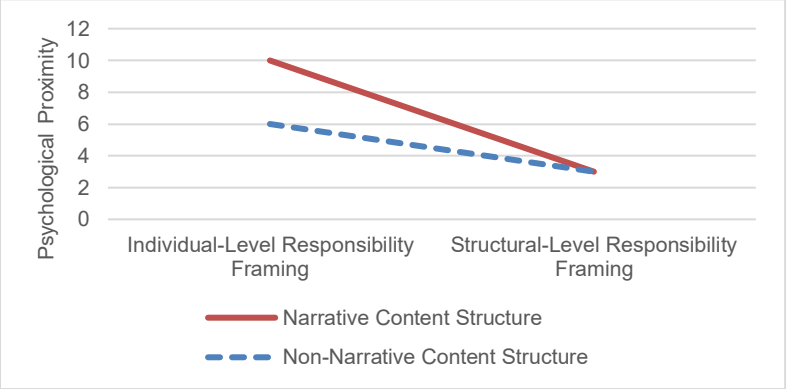


By the same logic, hypotheses regarding the interaction between content structures and responsibility framing in their associations with, respectively, psychological proximity, fear of crime, and civic engagement intentions can be proposed, based on the following previously demonstrated relationships: (1) exposure to a narrative content structure is expected to be associated with greater psychological proximity than exposure to a non-narrative content structure; (2) exposure to a narrative content structure is expected to be associated with greater fear of crime than exposure to a non-narrative content structure; (3) exposure to a narrative content structure is expected to be associated with greater civic engagement intentions than exposure to a non-narrative content structure; (4) exposure to individual-level responsibility framing is expected to be associated with greater psychological proximity than exposure to structural-level responsibility framing; (5) exposure to individual-level responsibility framing is expected to be associated with greater fear of crime than exposure to structural-level responsibility framing; and (6) exposure to individual-level responsibility framing is expected to be associated with greater civic engagement intentions than exposure to structural-level responsibility framing. The corresponding hypotheses are illustrated in Figures 27, 28, and 29.

H8a: Content structures and responsibility framing are expected to interact in their association with participants' tendency to perceive mass shooting violence as psychologically proximate, such that this tendency will be lower for news messages that are non-narrative or use a structural-level responsibility framing, and highest for messages that are narrative and use an individual-level responsibility framing.

Figure 19

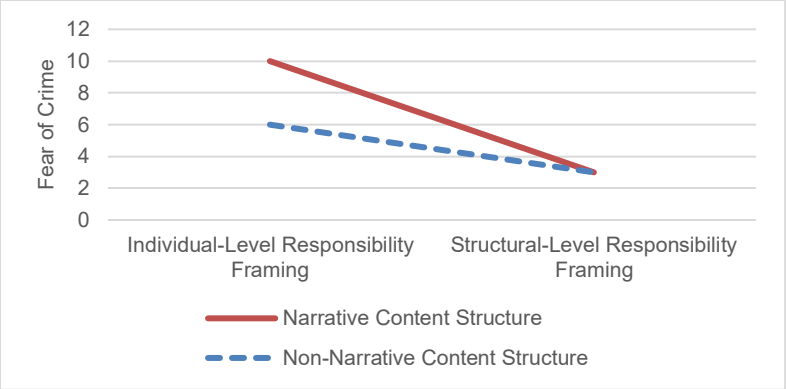
Hypothesized Interaction between Content Structures and Responsibility Framing in Relation to Psychological Proximity



H8b: Content structures and responsibility framing are expected to interact in their association with participants' fear of crime, such that fear of crime will be lower for news messages that are non-narrative or use a structural-level responsibility framing, and highest for messages that are narrative and use an individual-level responsibility framing.

Figure 20

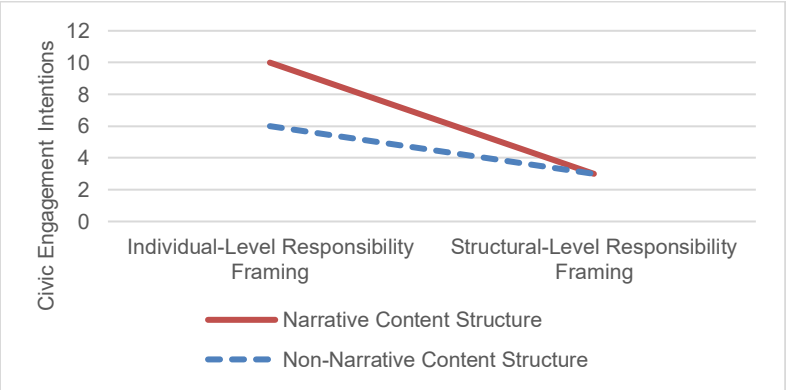
Hypothesized Interaction between Content Structures and Responsibility Framing in Relation to Fear of Crime



H8c: Content structures and responsibility framing are expected to interact in their association with participants' civic engagement intentions, such that civic engagement intentions will be lower for news messages that are non-narrative or use a structural-level responsibility framing, and highest for messages that are narrative and use an individual-level responsibility framing.

Figure 21

Hypothesized Interaction between Content Structures and Responsibility Framing in Relation to Civic Engagement Intentions



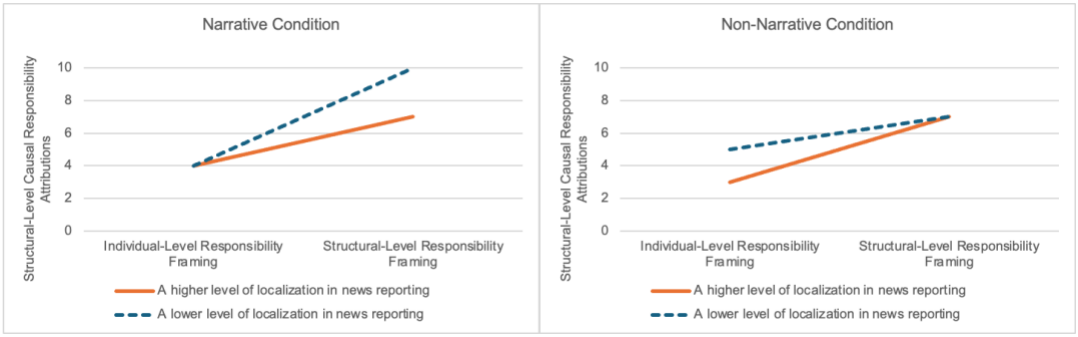
After summarizing the hypotheses regarding the interaction effects between each pair of independent variables—responsibility framing, content structure, and localization in news reporting—discussed and proposed above, the following hypotheses concerning the three-way

interaction among these variables can be logically derived, with corresponding figures provided for illustration:

H9a: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' tendency to view mass shootings as primarily caused by structural-level factors, such that this tendency will be lower for news messages that use an individual-level responsibility framing, are non-narrative, and use a higher level of localization in news reporting, and highest for messages that use a structural-level responsibility framing, are narrative, and use a lower level of localization in news reporting.

Figure 22

Hypothesized Interaction between Responsibility Framing, Content Structures, and Localization in News Reporting in Relation to Structural-Level Causal Responsibility Attributions

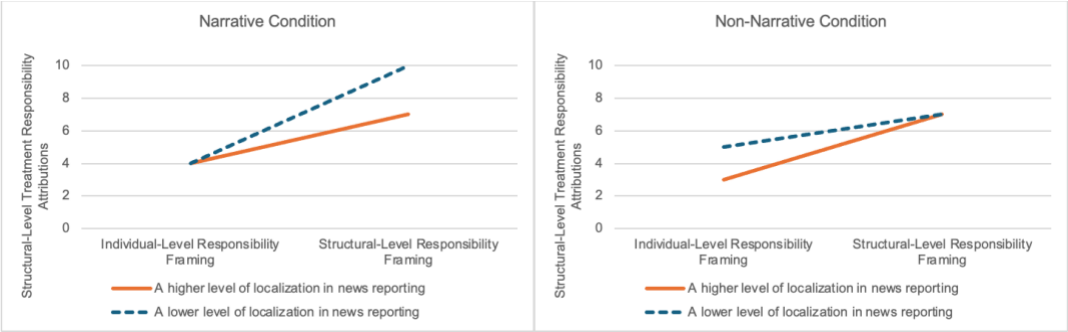


H9b: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' tendency to believe that mass shootings should primarily be addressed through structural-level solutions, such that this tendency will be lower for news messages that use an individual-level responsibility framing, are non-narrative, and use a higher level of localization in news reporting, and highest for messages that use a structural-level

responsibility framing, are narrative, and use a lower level of localization in news reporting.

Figure 23

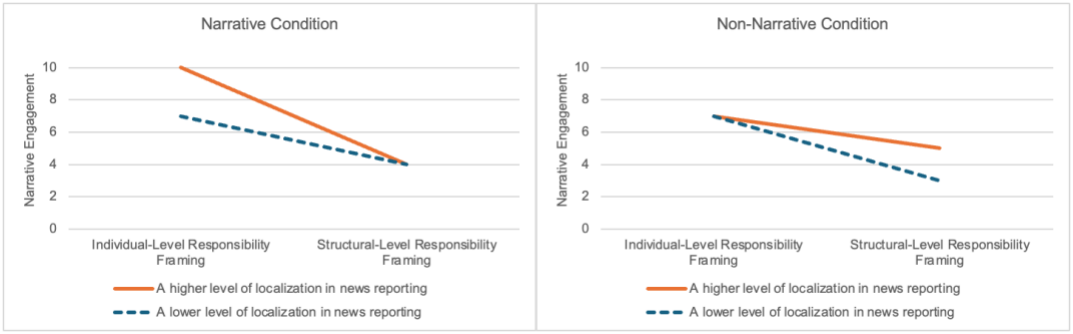
Hypothesized Interaction between Responsibility Framing, Content Structures, and Localization in News Reporting in Relation to Structural-Level Treatment Responsibility Attributions



H9c: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' narrative engagement, such that narrative engagement will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.

Figure 24

Hypothesized Interaction between Responsibility Framing, Content Structures, and Localization in News Reporting in Relation to Narrative Engagement



H9d: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' discrete emotion of anger, such that anger will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.

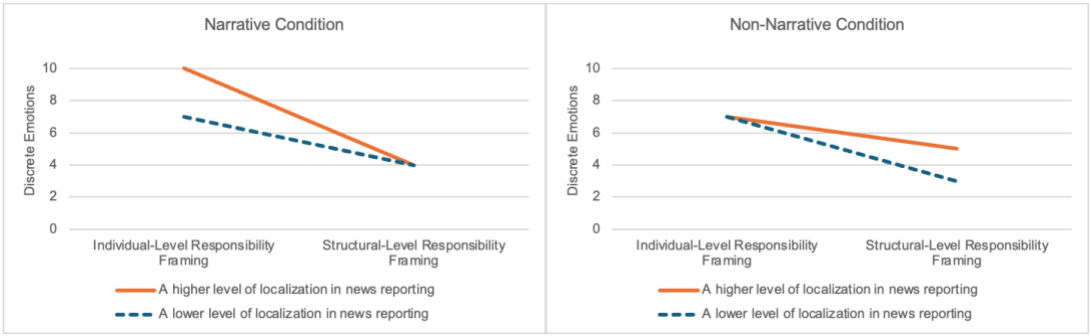
H9e: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' discrete emotion of fear, such that fear will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.

H9f: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' discrete emotion of hopefulness, such that hopefulness will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-

level responsibility framing, are narrative, and use a higher level of localization in news reporting.

Figure 25

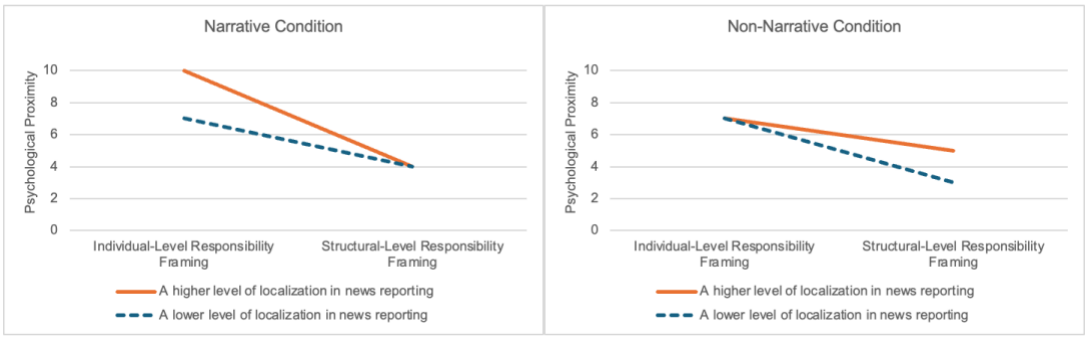
Hypothesized Interaction between Responsibility Framing, Content Structures, and Localization in News Reporting in Relation to Discrete Emotions



H9g: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' tendency to perceive mass shooting violence as psychologically proximate, such that this tendency will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.

Figure 26

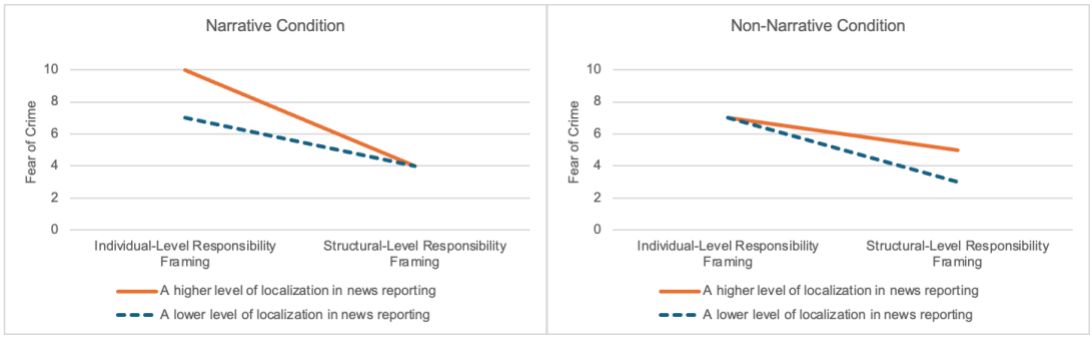
Hypothesized Interaction between Responsibility Framing, Content Structures, and Localization in News Reporting in Relation to Psychological Proximity



H9h: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' fear of crime, such that fear of crime will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.

Figure 27

Hypothesized Interaction between Responsibility Framing, Content Structures, and Localization in News Reporting in Relation to Fear of Crime

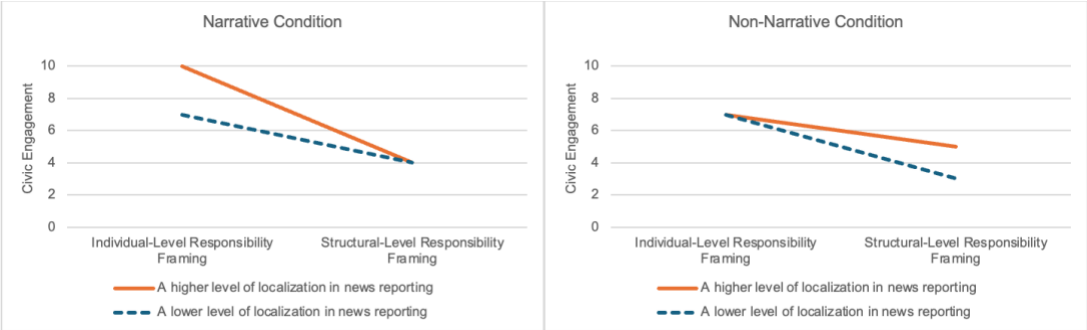


H9i: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' civic engagement intentions, such that civic engagement intentions will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an

individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.

Figure 28

Hypothesized Interaction between Responsibility Framing, Content Structures, and Localization in News Reporting in Relation to Civic Engagement Intentions



Finally, the present study also explores whether the interaction among responsibility framing, content structures, and localization in news reporting influences perceived news credibility, newsworthiness, and news quality, in addition to the primary outcome variables that are the focus of the current research (i.e., responsibility attributions for the mass shooting issue, narrative engagement, discrete emotions, psychological proximity, fear of crime, and civic engagement intentions). These factors are important for understanding audiences' reactions to the message itself and, in turn, may be helpful in interpreting audiences' reactions to the object covered by the message (Appelman & Sundar, 2016; Boukes et al., 2022; Henke et al., 2020). However, the interaction effects (i.e., responsibility framing × content structures × localization in news reporting) on perceived news credibility, newsworthiness, and news quality remain unclear given the current evidence. Considering this uncertainty, the present study raises the following research questions:

RQ1a: Is the interaction among responsibility framing, content structures, and localization in news reporting associated with perceived news credibility?

RQ1b: Is the interaction among responsibility framing, content structures, and localization in news reporting associated with perceived newsworthiness?

RQ1c: Is the interaction among responsibility framing, content structures, and localization in news reporting associated with perceived news quality?

2.3. Conclusions

This chapter reviews academic literature relevant to the current study, focusing on three attributes of news messages about the mass shooting issue—(1) responsibility framing, (2) content structures, and (3) localization in news reporting—and their effects on audiences' (1) causal and treatment responsibility attributions for the issue, (2) narrative engagement, (3) discrete emotions of anger, fear, and hopefulness, (4) psychological proximity to the issue, (5) fear of crime, and (6) civic engagement intentions. In the next chapter, which focuses on the methodology of the current research, the concepts discussed in this chapter are operationalized to allow for a reliable and valid examination of their relationships. The experimental design is also described there.

Chapter 3. Methodology

This study employed a 2 (responsibility framing: individual-level vs. structural-level) × 2 (content structures: narrative vs. non-narrative) × 2 (localization in news reporting: national vs. community news perspective) × 3 (message variance: a mass shooting incidence happening in a grocery, a high school, or a music festival, respectively) mixed experimental design. Responsibility framing, content structures, and localization in news reporting were manipulated between subjects, whereas message variance was manipulated within subjects. Through an online experiment, participants were randomly assigned to one of eight message conditions and viewed three stimuli (i.e., approximately 270-word fictional, text-based news messages) in

random order. Each stimulus covered a different mass shooting incident (i.e., incidents occurring in a grocery, a high school, and a music festival, respectively). After viewing each stimulus, participants reported their responsibility attributions for the mass shooting issue, narrative engagement, discrete emotions, psychological proximity to the issue, fear of crime, civic engagement intentions, and perceived message quality, credibility, and newsworthiness, as well as demographic variables. The full experiment took approximately 30 minutes to complete.

3.1. Participants

U.S. citizens aged 18 years or older were the target participants in the present study, as the study centers on the public's understanding of the primary causes of and solutions to mass shooting violence in the U.S., as well as their civic engagement intentions. Before data collection, the study protocol was reviewed by the University of Oklahoma Institutional Review Board (IRB) and determined to be exempt; the IRB determination letter is provided in Appendix A. The study recruited 486 participants that achieved the desired statistical power ($1-\beta = 0.9$), as suggested by G*Power (Faul et al., 2007). The experiment was administered through an online questionnaire designed in Qualtrics and distributed via CloudResearch Connect, where participants were recruited for data collection. It incorporates the Mechanical Turk (MTurk) Toolkit, which screens out low-quality MTurk participants and has been shown to support higher-quality data collection than MTurk alone (Hauser et al., 2022). The system evaluates participant quality using researcher-generated data, screening instruments administered to MTurk workers, and technological indicators such as geolocation-based checks (Hauser et al., 2022, pp. 3954–3955). Participants who demonstrate an unwillingness or inability to provide high-quality responses are placed on a low-quality list.

Hauser and colleagues (2022) evaluated data quality among CloudResearch Connect participants (N = 900) and compared it with a standard MTurk sample consisting of workers with at least a 95% Human Intelligence Task (HIT) approval rate and more than 100 completed HITs. They compared CloudResearch Connect participants in the high-quality list, those in the low-quality list, and the standard MTurk sample. Overall, the high-quality group outperformed the low-quality group across multiple indicators of response quality (e.g., accuracy, comprehension, attention checks, response consistency, and reduced cheating behaviors) and replicated classic psychological effects more reliably, with the standard MTurk sample generally falling between the two groups (Hauser et al., 2022, p. 3953). Kay (2025) replicated the same study on CloudResearch Connect and found negative correlations for 78% of antonym pairs, indicating higher data quality than MTurk, even at the same pay rate. CloudResearch's vetting procedures appear to primarily screen out inattentive and fraudulent respondents located outside the U. S. (Litman et al., 2021), and its high-quality participant pool continues to grow. Additionally, researchers are able to cap participant experience by setting a maximum number of completed HITs (Robinson et al., 2019). Thus, CloudResearch Connect is a relatively reliable platform for participant recruitment and data collection.

3.2. Independent Variables

3.2.1. Responsibility Framing

Responsibility framing in the present study denotes a type of news framing that assigns responsibility for the primary causes of and solutions to the mass shooting issue in the U.S. (Chattoo et al., 2021; Iyengar, 1996; S.-H. Kim, 2015; S.-H. Kim et al., 2010). Two levels of responsibility framing are distinguished: the individual level and the structural level. Half of the

stimuli employed individual-level responsibility framing, and the other half employed structural-level responsibility framing.

Stimuli featuring individual-level responsibility framing portrayed mass shooting violence as (1) rooted in individual deficiencies, such as mental illness and unresolved personal grievances or vendettas, as well as in overly restrictive gun control policies that weaken individual gun rights and self-defense—thereby limiting individuals' capacity to protect themselves; and (2) as a problem that should be addressed primarily through direct modification of problematic individual behaviors and attitudes or through immediate interventions to stop a perpetrator's actions, such as expanding access to mental health services, increasing the presence of armed security personnel in key locations, and relaxing gun regulations to allow citizens to carry firearms in public spaces for self-defense (Holody & Shaughnessy, 2022; Hansen, 2023; Pyne, 2017; Schnell & Callaghan, 2005).

In the stimuli, the causal interpretation was conveyed through a sheriff's statement describing the shooter as mentally ill and as having unresolved personal grievances or vendettas against the government and society, while emphasizing that victims were vulnerable because they lacked means of protection during the attack. The proposed individual-level solutions were presented through a criminologist's commentary.

On the other hand, stimuli with structural-level responsibility framing described the mass shooting issue (1) as stemming from systemic societal failures, ranging from weakly regulated firearm policies to broader macro-level factors such as social disorganization and economic deprivation, and (2) as needing to be addressed primarily through the adoption of stricter gun control measures and the advancement of broader social justice reforms (Cook & Goss, 2014;

Carlson, 2021; Dancy et al., 2019; Ghio et al., 2023; McMillan & Bernstein, 2022; Merry, 2023; Pfaffendorf & Davis, 2021; Schaeffer, 2024).

In the stimuli, the causal interpretation was conveyed through a sheriff's statement describing the shooter as deeply affected by systemic social and economic disadvantages, including low wages, unstable housing, limited access to social services, and few future-oriented opportunities. The statement also emphasized that the shooter obtained the firearm through straw purchasing. The proposed structural-level solutions were presented through a criminologist's commentary.

3.2.2. Content Structures

Content structures describe how news reports organize and present factual information, among which two primary types are commonly distinguished: narrative and non-narrative (Braddock & Dillard, 2016; Dahlstrom, 2014; Green, 2008; Kreuter et al., 2007; Murphy et al., 2013). A narrative-structured news piece typically presents a sequence of logically connected actions and developments involving people related to the covered event over time (Braddock & Dillard, 2016; Dahlstrom, 2014). By contrast, a non-narrative-structured news piece typically presents facts and evidence about the causes and solutions of the covered issue, along with moral evaluations, in a more illustrative and didactic manner, without creating an immersive world or scene into which audiences can be transported (M. C. Green, 2008; Kreuter et al., 2007; Murphy et al., 2013).

In the present study, each narrative stimulus began by setting the scene of a mass shooting incident, followed by a description of how the event unfolded and concluded, with quotations from a survivor and the family of a deceased victim integrated throughout the account. The stimuli also included post-incident context, including a sheriff's statement on the

shooter's status and the crime scene, as well as a criminologist's commentary on potentially effective solutions to mass shooting violence in the U.S. This design follows an hourglass narrative structure, which combines the inverted pyramid with chronological storytelling by starting with basic facts, then moving into a detailed sequential account, and concluding with broader concerns or implications (Fiveable, 2024). This structure is widely used in crime reporting and in coverage of complex events that require investigation beyond the immediate facts (Fiveable, 2024).

In the present study, when presenting the same facts, all non-narrative stimuli maintained an emotionally neutral, informative tone and presented mass shooting violence in a straightforward and concise manner. They avoided vivid language that may prompt mental imagery and instead prioritized the direct communication of essential facts. Axios, an American news website, exemplifies this non-narrative style of reporting, in the contemporary digital news environment. Axios news reports are characteristically brief, optimized for quick consumption, often around 300 words in length, and organized in bullet points that group key information into short chunks rather than embedding it within a narrative storyline (Murphy, 2021). This format was adopted for the non-narrative stimuli in the present study, which helped ensure a clear distinction between narrative and non-narrative stimuli and make the study's results more consistent with the contemporary context of media digitalization.

3.2.3. Localization in News Reporting

In the present study, localization in news reporting refers to variation in reporting "focal length" toward an issue or event—namely, mass shooting violence—that occurs in the U.S. but outside the reader's state of residence. Specifically, based on levels of localization, news reporting perspectives are categorized as national (reflecting a higher-level construal) and

community (reflecting a lower-level construal; Degli Esposti et al., 2025; Shoemaker & Reese, 1996; Wagner & Collins, 2014). The two levels of localization in news reporting were manipulated through three elements in the stimuli. First, before beginning the experiment, participants read a scenario informing them that they would be exposed to three news reports adapted from real reports by either U.S. national news outlets or community news outlets, depending on their assigned condition, about three mass shooting incidents in the U.S. Participants were also asked to assume that the mass shootings described occurred outside their state of residence.

Second, fictional outlet names presented in the byline signaled the outlet's level of localization. Stimuli representing national news perspective displayed the outlet name *American News Today*, whereas stimuli representing community news perspective displayed the outlet name *Riverbend Neighborhood News Service*. Riverbend is a fictional neighborhood. Third, the quoted criminologist's commentary and institutional affiliation reflected the differing interests of national versus community news perspective. Specifically, stimuli representing a national news perspective emphasized the relevance of the mass shooting issue to the country as a whole and presented solutions operating on the federal level, recommended by a criminologist affiliated with a federal crime analysis institute. In contrast, stimuli representing a community news perspective emphasized the relevance of the issue to the local community and presented solutions operating on the community level, recommended by a criminologist affiliated with a local university crime analysis institute.

This manipulation reflects real-world journalistic practices (Carra, 2025). For example, when covering the same issue, community news perspective often translates the federally oriented perspective found in national stories into accounts that emphasize how the issue may be

relevant to residents' everyday lives, with particular attention to local impact (Carra, 2025). In this process, community news reporters tend to adopt an approach that highlights local responses and constraints, focusing on ways to protect residents and incorporating commentary from experts familiar with the local situation. In contrast, national news organizations tend to emphasize different priorities in their coverage scope. Therefore, the manipulation of localization in news reporting in the current study should reflect real-world news reporting to some extent. This manipulation was piloted to ensure it was presented to participants in a valid manner.

3.3. Dependent Variables

The following subsections describe the dependent variables measured in the present study, including audiences' causal and treatment responsibility attributions for the mass shootings, narrative engagement, discrete emotions, psychological proximity, fear of crime, civic engagement intentions, and perceived message credibility, newsworthiness, and quality. Before deciding whether responses could be averaged across the three message variants, mixed-design repeated-measures ANOVAs were conducted for each dependent variable. Message variance (grocery, high school, and music festival) was modeled as a within-subject factor, while responsibility framing, content structure, and localization in news reporting were modeled as between-subject factors. This preliminary analysis was conducted to determine whether the effects of the experimental manipulations were consistent across message variants and whether averaging across variants would be appropriate.

Although the three message variants were designed to represent the same experimental conditions, they differed in substantive context. The repeated-measures analyses revealed several significant interactions involving message variant, indicating that the effects of responsibility framing, content structure, and localization in news reporting were not entirely consistent across

the grocery, high school, and music festival variants. These outcomes suggested that responses varied as a function of message topic and that averaging across the three variants could obscure meaningful differences. Therefore, the message variance was retained as a within-subject factor in subsequent analyses rather than collapsing responses across the three message topics. This approach enabled the primary effects of responsibility framing, content structure, localization in news reporting, and their interactions to be examined while accounting for potential variation across message variants. Detailed results supporting this decision are provided in Table 5 in the Results chapter. Table 1 summarizes the measurement properties of the dependent variables across the three message variants, including means, standard deviations, and Cronbach's alpha coefficients or inter-item correlations for two-item measures.

3.3.1. Audiences' Causal Responsibility Attributions for the Mass Shooting Issue

Audiences' causal responsibility attributions refer to how audiences respond to a message about an issue by assigning either individual-level or structural-level factors as the primary causes of the issue (Holody & Shaughnessy, 2022; Hansen, 2023; Pyne, 2017; Schnell & Callaghan, 2005). In the context of the present study, individual-level causal responsibility attributions correspond to viewing the shooter's mental illness or unresolved personal grievances or vendettas as primarily responsible for the occurrence of mass shooting violence. By contrast, structural-level causal responsibility attributions correspond to viewing weakly regulated gun policies, social disorganization, and economic deprivation as primarily responsible.

Six items were used to measure audiences' causal responsibility attributions on a seven-point Likert scale, anchored from 1 = "strongly disagree" to 7 = "strongly agree," with higher scores consistently indicating greater causal responsibility attributions on the structural level. Three items assess participants' tendency toward individual-level causal responsibility

attributions (which were recoded), asking participants to indicate their level of agreement that mass shootings occur (1) because many law-abiding citizens do not own or carry a gun to defend themselves when a shooting happens; (2) because perpetrators have serious, untreated mental illness; and (3) because potential shooters are not deterred when armed security is insufficient. Another three items assess participants' tendency toward structural-level causal responsibility attributions, asking participants to indicate their level of agreement that mass shootings occur (1) because systems and institutions fail to prevent high-risk access to firearms; (2) because communities lack strong social ties and informal social control; and (3) because economic deprivation increases stress and reduces access to stable opportunities, creating conditions that contribute to violence.

Previous studies have used this type of rating-scale measure by asking participants to indicate their agreement with one or more statements assessing their responsibility attributions for the social issue(s) under examination (e.g., Gomez & Wilson, 2008; Iyengar, 1990; Rudolph, 2006; Tilley & Hobolt, 2011). Although there is no consistent format or fixed set of items for measuring responsibility attributions—given that social issues vary in their features—rating-scale measures like these could effectively capture the degree of responsibility attributions (Rudolph, 2015).

However, the reliability analyses showed low internal consistency across the grocery, high school, and music festival mass shooting news stimuli, respectively: $\alpha = .43$, $M = 4.31$, $SD = .83$; $\alpha = .41$, $M = 4.31$, $SD = .82$; and $\alpha = .42$, $M = 4.28$, $SD = .83$. Because three items in the scale—the self-defense, armed-security, and mental-illness items—had been reverse-coded, item coding was re-examined before final scale construction. These three items were recoded so that all six causal responsibility attribution items were in the same substantive direction, with higher

values indicating stronger agreement with each causal responsibility attribution statement. Reliability analyses were then conducted separately for the recoded six-item causal responsibility attribution scale within each message variant. The recoded six-item scales still showed low internal consistency across the grocery, high school, and music festival messages, respectively: α = .38, M = 4.75, SD = .81; α = .40, M = 4.76, SD = .81; and α = .44, M = 4.73, SD = .84. Principal components analyses (PCAs) were then conducted to identify a more appropriate scoring structure.

Before conducting PCAs, the factorability of the six items was assessed separately for the grocery, high school, and music festival message variants. The sample size was adequate for PCA, with N = 486 and six items included in each analysis. Bartlett's tests of sphericity were statistically significant for all three message variants: grocery, $\chi^2(15) = 388.01$, $p < .001$; school, $\chi^2(15) = 391.87$, $p < .001$; and festival, $\chi^2(15) = 440.01$, $p < .001$. These indicated that the item correlation matrices were not identity matrices and that the items were sufficiently interrelated to permit component analysis. The Kaiser-Meyer-Olkin (KMO) values of sampling adequacy were low: grocery, KMO = .56; school, KMO = .56; and festival: KMO = .54. Taken together, these diagnostics suggested that PCA was statistically permissible, although the relatively low KMO values indicated limited shared variance among the items.

Each PCA extracted three components with eigenvalues greater than 1.00. The three-component solutions explained 72.53%, 73.06%, and 74.35% of the total variance for the grocery, school, and music festival mass shooting news stimuli, respectively. These results suggested that participants distinguished among different types of causal explanations. Therefore, the items were not combined into one overall causal responsibility attribution scale.

Instead, conceptually and empirically related items were analyzed as separate causal responsibility attribution measures.

Based on the conceptual distinction between individual-level and structural-level explanations and informed by the exploratory PCA results using the consistently coded items, the causal responsibility attribution items were grouped into separate measures. The individual-level causal responsibility attribution measure included the self-defense and armed-security items. The structural-level causal responsibility attribution measure included the social-disorganization and economic-deprivation items. The mental-illness item and high-risk-access item were analyzed separately because the PCA results suggested that these items did not align cleanly with the two composite measures. Specifically, the mental-illness item loaded strongly as a separate dimension, whereas the high-risk-access item showed cross-loading across components. Conceptually, the mental-illness item reflects an individual-level explanation but may also imply broader structural issues related to access to mental health care and institutional intervention. Conversely, the high-risk-access item reflects a structural-level explanation but may also imply individual-level risk.

Inter-item Pearson correlations were conducted for the two items forming each individual- and structural-level causal responsibility attribution measure across the three message variants. For the individual-level causal responsibility attribution measure, the inter-item correlations and composite descriptives for the grocery, school, and festival messages were, respectively: $r = .45$, $p < .001$, $M = 3.79$, $SD = 1.55$; $r = .39$, $p < .001$, $M = 3.82$, $SD = 1.50$; and $r = .44$, $p < .001$, $M = 3.84$, $SD = 1.54$. For the structural-level causal responsibility attribution measure, the corresponding values were: $r = .41$, $p < .001$, $M = 4.70$, $SD = 1.41$; $r = .46$, $p < .001$, $M = 4.74$, $SD = 1.42$; and $r = .49$, $p < .001$, $M = 4.67$, $SD = 1.45$.

Table 1

Scale Reliability and Descriptive Statistics

Construct	Variant	*k*	*N*	Reliability	*M*	*SD*
Individual-level causal responsibility attributions	Grocery	2	486	.45***	3.79	1.55
	High school	2	486	.39***	3.82	1.50
	Music festival	2	486	.44***	3.84	1.54
Structural-level causal responsibility attributions	Grocery	2	486	.41***	4.70	1.41
	High school	2	486	.46***	4.74	1.42
	Music festival	2	486	.49***	4.67	1.45
Mental-illness causal responsibility attributions	Grocery	1	486	—	5.72	1.33
	High school	1	486	—	5.70	1.35
	Music festival	1	486	—	5.69	1.32
High-risk-access causal responsibility attributions	Grocery	1	486	—	5.78	1.42
	High school	1	486	—	5.72	1.45
	Music festival	1	486	—	5.69	1.45
Individual-level treatment responsibility attributions	Grocery	2	486	.51***	4.05	1.56
	High school	2	486	.48***	4.06	1.56
	Music festival	2	486	.45***	4.02	1.53
Structural-level treatment responsibility attributions	Grocery	2	486	.44***	4.85	1.34
	High school	2	486	.50***	4.89	1.37
	Music festival	2	486	.51***	4.85	1.38
Mental-illness treatment responsibility attributions	Grocery	1	486	—	5.75	1.25
	High school	1	486	—	5.78	1.19
	Music festival	1	486	—	5.69	1.31
High-risk-access treatment responsibility attributions	Grocery	1	486	—	5.81	1.39
	High school	1	486	—	5.81	1.35
	Music festival	1	486	—	5.77	1.40
Narrative engagement	Grocery	12	486	.80	5.33	0.84
	High school	12	486	.82	5.36	0.88
	Music festival	12	486	.82	5.29	0.88
Anger	Grocery	3	486	.87	3.68	1.82
	High school	3	486	.87	3.79	1.86
	Music festival	3	486	.88	3.65	1.84
Fear	Grocery	3	486	.96	3.67	1.98
	High school	3	486	.97	3.69	1.97
	Music festival	3	486	.96	3.66	1.94
Hopefulness	Grocery	2	486	.79***	2.26	1.60
	High school	2	486	.80***	2.20	1.57
	Music festival	2	486	.82***	2.17	1.58
Psychological proximity	Grocery	4	486	.86	5.90	0.97

Construct	Variant	*k*	*N*	Reliability	*M*	*SD*
	High school	4	486	.82	5.87	0.94
	Music festival	4	486	.84	5.83	1.01
Fear of crime	Grocery	2	486	.86***	4.60	1.68
	High school	2	486	.83***	4.55	1.62
	Music festival	2	486	.82***	4.57	1.65
Civic engagement intentions	Grocery	8	486	.92	5.05	1.17
	High school	8	486	.93	5.04	1.17
	Music festival	8	486	.93	5.03	1.19
Perceived news credibility	Grocery	5	486	.76	5.05	1.02
	High school	5	486	.79	5.06	1.08
	Music festival	5	486	.79	5.04	1.07
Perceived newsworthiness	Grocery	5	486	.81	5.84	0.91
	High school	5	486	.80	5.88	0.89
	Music festival	5	486	.78	5.84	0.89
Perceived news quality	Grocery	1	486	—	5.43	1.08
	High school	1	486	—	5.40	1.11
	Music festival	1	486	—	5.40	1.09

Note. *k* = number of items; *N* = sample size; *M* = mean; *SD* = standard deviation. Cronbach's alpha was reported for scales with more than two items, and the Pearson inter-item correlation was reported for two-item scales. No reliability coefficient was reported for single-item measures. For two-item scales, *** $p < .001$. *M* and *SD* are reported as descriptive statistics for all variables. All values are rounded to two decimal places.

Assumptions for Pearson correlations were assessed before analysis. All item pairs had complete data ($N = 486$), and all item variables used the full 1–7 response range. Although Kolmogorov-Smirnov and Shapiro-Wilk tests were statistically significant for all variables examined ($p < .001$), these tests are sensitive in large samples, especially when variables are based on bounded Likert-type response scales. For the six causal responsibility attribution composites, skewness values ranged from -.78 to .61, and kurtosis values ranged from -1.10 to -.17, suggesting no severe departures from normality. Boxplots showed no flagged potential or extreme outliers, and scatterplot matrices showed no clear curvilinear relationships or extreme isolated points. Therefore, Pearson inter-item correlations were considered appropriate.

In addition, means and standard deviations were calculated for the single-item mental-illness and high-risk-access causal responsibility attribution measures across the three message variants. For the mental-illness causal responsibility attribution measure, the means and standard deviations for the grocery, school, and festival messages were, respectively: $M = 5.72$, $SD = 1.33$; $M = 5.70$, $SD = 1.35$; and $M = 5.69$, $SD = 1.32$. For the high-risk-access causal responsibility attribution measure, the corresponding values were: $M = 5.78$, $SD = 1.42$; $M = 5.72$, $SD = 1.45$; and $M = 5.69$, $SD = 1.45$. All variables had complete data ($N = 486$), and observed values fell within the valid 1–7 response range.

3.3.2. Audiences' Treatment Responsibility Attributions for the Mass Shooting Issue

Audiences' treatment responsibility attributions refer to how audiences respond to a message about an issue by assigning either individual-level or structural-level factors as the primary solutions to the issue (Cook & Goss, 2014; Carlson, 2021; Dancy et al., 2019; Ghio et al., 2023; McMillan & Bernstein, 2022; Merry, 2023; Pfaffendorf & Davis, 2021; Schaeffer, 2024). In the context of the present study, individual-level treatment responsibility attributions

correspond to viewing measures that directly modify problematic individual behaviors and attitudes, or that intervene immediately in a perpetrator's actions, as primarily responsible for addressing mass shooting violence. By contrast, structural-level treatment responsibility attributions correspond to viewing measures that address weakly regulated gun policies, social disorganization, and economic deprivation as primarily responsible.

Six items measured audiences' treatment responsibility attributions using a seven-point Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"), with higher scores indicating greater attribution of treatment responsibility to structural factors. Three items assess participants' tendency toward individual-level treatment responsibility attributions (which were recoded), asking participants to indicate their level of agreement that mass shootings can be alleviated (1) if more law-abiding citizens own and carry guns for self-defense during a shooting; (2) if individuals at risk of committing violence receive effective mental health treatment; and (3) if potential shooters are deterred by a sufficient presence of armed security. Another three items assess participants' tendency toward structural-level treatment responsibility attributions, asking participants to indicate their level of agreement that mass shootings can be alleviated (1) if high-risk access to firearms is effectively controlled; (2) if communities have stronger social ties and informal social control; and (3) if economic deprivation is effectively addressed to reduce stress and increase access to stable opportunities, creating conditions that help prevent violence.

However, the reliability analyses showed low internal consistency across the grocery, high school, and music festival mass shooting news stimuli, respectively: $\alpha = .44$, $M = 4.28$, $SD = .81$; sch: $\alpha = .43$, $M = 4.28$, $SD = .80$; and fest: $\alpha = .38$, $M = 4.29$, $SD = .79$. Because three items in the scale—the self-defense, armed-security, and mental-illness items—had been reverse-coded, item coding was re-examined before final scale construction. These three items were

recoded so that all six treatment responsibility attribution items were in the same substantive direction, with higher values indicating stronger agreement with each treatment responsibility attribution statement. Reliability analyses were then conducted separately for the recoded six-item treatment responsibility attribution scale within each message variant. The recoded six-item scales still showed low internal consistency across the grocery, high school, and music festival messages, respectively: $\alpha = .36$, $M = 4.89$, $SD = .77$; $\alpha = .41$, $M = 4.92$, $SD = .79$; and $\alpha = .44$, $M = 4.87$, $SD = .81$. PCAs were then conducted to identify a more appropriate scoring structure.

Before conducting PCAs, the factorability of the six items was assessed separately for the grocery, high school, and music festival message variants. The sample size was adequate for PCA, with $N = 486$ and six items included in each analysis. Bartlett's tests of sphericity were statistically significant for all three message variants: grocery, $\chi^2(15) = 538.12$, $p < .001$; school, $\chi^2(15) = 574.97$, $p < .001$; and festival, $\chi^2(15) = 536.82$, $p < .001$. These indicated that the item correlation matrices were not identity matrices and that the items were sufficiently interrelated to permit component analysis. The KMO values of sampling adequacy were low: grocery, $KMO = .57$; sch: $KMO = .60$; and fest: $KMO = .59$. Taken together, these diagnostics suggested that PCA was statistically permissible, although the relatively low KMO values indicated limited shared variance among the items.

The grocery PCA produced a three-component solution with eigenvalues greater than 1.00, explaining 75.82% of the total variance. The school and music festival PCAs each produced two-component solutions, explaining 60.81% and 60.02% of the total variance, respectively. However, the third eigenvalues for the school and music festival messages were close to 1.00, $\lambda_3 = .96$ and $\lambda_3 = .93$, respectively, suggesting that the distinction between two- and

three-component solutions was somewhat borderline and partly sensitive to the eigenvalue-greater-than-one criterion.

Across the three PCAs, the most consistent empirical pattern was that the self-defense and armed-security items clustered together as individual-level treatment responsibility attributions, whereas the social-disorganization and economic-deprivation items clustered together as structural-level treatment responsibility attributions. The mental-illness and high-risk-access treatment responsibility attribution items showed less consistent loading patterns across message variants. Specifically, they formed a separate component in the grocery message but loaded with the component containing the social-control/social-ties and economic-deprivation treatment items in the high school and music festival messages. Additionally, the high-risk-access item showed cross-loading across components in the high school and music festival PCAs.

Therefore, these two items were analyzed as separate single-item measures. This scoring approach avoided topic-specific scoring rules, preserved comparability across message variants, and remained consistent with the theoretical distinction between individual-level and structural-level remedies. Conceptually, the mental-illness item reflects an individual-level remedy but may also imply broader structural issues related to mental health care access and institutional intervention. Conversely, the high-risk-access treatment item reflects a structural-level remedy but may also center on individual-level risk.

Inter-item Pearson correlations were conducted for the two items forming each individual- and structural-level treatment responsibility attribution measure across the three message variants. For the individual-level treatment responsibility attribution measure, the inter-item correlations and composite descriptives for the grocery, school, and festival messages were,

respectively: $r = .51$, $p < .001$, $M = 4.05$, $SD = 1.56$; $r = .48$, $p < .001$, $M = 4.06$, $SD = 1.56$; and $r = .45$, $p < .001$, $M = 4.02$, $SD = 1.53$. For the structural-level treatment responsibility attribution measure, the corresponding values were: $r = .44$, $p < .001$, $M = 4.85$, $SD = 1.34$; $r = .50$, $p < .001$, $M = 4.89$, $SD = 1.37$; and $r = .51$, $p < .001$, $M = 4.85$, $SD = 1.38$.

Assumptions for Pearson correlations were assessed before analysis. All item pairs had complete data ($N = 486$), and all item variables used the full 1–7 response range. Although Kolmogorov-Smirnov and Shapiro-Wilk tests were statistically significant for all variables examined ($p < .001$), these tests are sensitive in large samples, especially when variables are based on bounded Likert-type response scales. For the six treatment responsibility attribution composites, skewness values ranged from -.86 to .36, and kurtosis values ranged from -1.24 to .24, suggesting no severe departures from normality. Boxplots showed no flagged potential or extreme outliers, and scatterplot matrices showed no clear curvilinear relationships or extreme isolated points. Therefore, Pearson inter-item correlations were considered appropriate.

Additionally, means and standard deviations were calculated for the single-item mental-illness and high-risk-access treatment responsibility attribution measures across the three message variants. These descriptive statistics were considered appropriate because all variables had complete data ($N = 486$), and observed values fell within the valid 1–7 response range. For the mental-illness treatment responsibility attribution measure, the means and standard deviations for the grocery, high school, and music festival messages were, respectively: $M = 5.75$, $SD = 1.25$; $M = 5.78$, $SD = 1.19$; and $M = 5.69$, $SD = 1.31$. For the high-risk-access treatment responsibility attribution measure, the corresponding values were: $M = 5.81$, $SD = 1.39$; $M = 5.81$, $SD = 1.35$; and $M = 5.77$, $SD = 1.40$.

3.3.3. Narrative Engagement

Narrative engagement captures how audiences mentally represent the unfolding event in a narrative, comprising four dimensions of experiential involvement with narratives: narrative understanding, attentional focus, emotional engagement, and narrative presence within the narrative (Busselle & Bilandzic, 2009; M. C. Green & Fitzgerald, 2017). The present study adapted the narrative engagement scale developed by Busselle and Bilandzic (2009) from a fictional narrative context to a news narrative context. The scale assesses the four dimensions as separate subscales, with reported reliability coefficients ranging from $\alpha = .83$ to $\alpha = .86$ across different viewing situations in which participants were exposed to various stimulus programs (Busselle & Bilandzic, 2009).

The measure contains 12 items across four subscales, with each subscale consisting of three items. All items are measured on a seven-point response scale anchored at 1 = "strongly disagree" and 7 = "strongly agree." The four subscales assess, respectively, (1) narrative understanding (perceived realism of the narrative and cognitive perspective-taking), (2) attentional focus (the extent to which audiences concentrate on the narrative), (3) emotional engagement (empathic and sympathetic responses), and (4) narrative presence (a sense of psychological immersion that bridges the story world and real-world experience). Items were recoded when necessary to ensure that higher values consistently indicate greater narrative engagement. Prior studies have employed both the individual subscales and the overall scale to assess associations between narrative engagement and a range of attitudinal and behavioral responses (Busselle & Bilandzic, 2009; Sukalla et al., 2016; Wojcieszak & Kim, 2016).

Specifically, narrative understanding was measured by the following items: (1) "At points, I had a hard time making sense of what was going on in the news;" (2) "My understanding of the people mentioned in the news is unclear;" and (3) "I had a hard time

recognizing the thread of the story." Attentional focus was measured by the following items: (1) "My mind wandered while I was reading the news.;" (2) "While reading the news, I found myself thinking about other things;" (3) "I had a hard time keeping my mind focused on the news."

Emotional engagement was measured by the following items: (1) "The news affected me emotionally;" (2) "While reading, I felt nervous when reading about the survivor's experience during the shooting and reassured when reading the criminologist's recommendations for preventing future mass shootings;" (3) "I felt sorry for the deceased victim's family." Narrative presence was measured by the following items: (1) "While reading, my body was where I was, but my mind was inside the world described in the news;" (2) "While reading the news, I had a vivid sense of the event described;" (3) "While reading, the mass shooting incident described felt more immediate than my real-world surroundings."

Because narrative engagement is theoretically multidimensional, reliability was assessed for both the overall 12-item narrative engagement scale and the four three-item subscales. The overall scale was used as the primary composite for hypothesis tests concerning general narrative engagement, whereas subscale reliabilities were reported to document the internal consistency of each theoretical dimension. Overall narrative engagement demonstrated acceptable reliability across the three message variants: grocery mass shooting message, $\alpha = .80$, $M = 5.33$, $SD = .84$; high school mass shooting message, $\alpha = .82$, $M = 5.36$, $SD = .88$; and music festival mass shooting news stimuli, $\alpha = .82$, $M = 5.29$, $SD = .88$.

Subscale reliabilities were generally adequate to excellent. Narrative understanding demonstrated strong reliability across the three message variants: grocery mass shooting message, $\alpha = .90$, $M = 5.78$, $SD = 1.32$; high school mass shooting message, $\alpha = .92$, $M = 5.81$,

SD = 1.35; and music festival mass shooting news stimuli, α = .90, *M* = 5.79, *SD* = 1.32. Attentional focus also demonstrated strong reliability: grocery mass shooting message, α = .95, *M* = 5.91, *SD* = 1.35; high school mass shooting message, α = .96, *M* = 5.91, *SD* = 1.41; and music festival mass shooting message, α = .95, *M* = 5.84, *SD* = 1.45.

Emotional engagement showed marginal to acceptable reliability: grocery mass shooting message, α = .66, *M* = 4.87, *SD* = 1.19; high school mass shooting message, α = .68, *M* = 5.00, *SD* = 1.22; and music festival mass shooting message, α = .70, *M* = 4.84, *SD* = 1.21. Narrative presence demonstrated acceptable reliability: grocery mass shooting message, α = .79, *M* = 4.76, *SD* = 1.35; high school mass shooting message, α = .80, *M* = 4.74, *SD* = 1.37; and music festival mass shooting message, α = .78, *M* = 4.70, *SD* = 1.33. Taken together, these results indicate that the overall narrative engagement composites were reliable for assessing general engagement, while the subscale estimates provide additional evidence that the four dimensions were measured with acceptable internal consistency across message variants.

3.3.4. Discrete Emotions

In the present study, exposure to news narratives about mass shootings was expected to evoke three discrete emotions: (1) anger, directed either toward the shooter or toward inadequate social policies, depending on the responsibility framing; (2) fear, arising from the incident's fatal consequences; and (3) hopefulness, derived from the criminologist's proposed approaches to addressing the issue. Participants rated the extent to which they experienced anger, fear, and hopefulness while reading the stimulus on 7-point Likert scales ranging from 1 = "very little" to 7 = "very much."

Anger was measured with three items: irritated, annoyed, and angry. This measure has demonstrated strong reliability in prior research, α = .97 (Clayton et al., 2018). In the present

study, the anger scale demonstrated strong reliability across the three message variants: grocery mass shooting message, α = .87, *M* = 3.68, *SD* = 1.82; high school mass shooting message, α = .87, *M* = 3.79, *SD* = 1.86; and music festival mass shooting message, α = .88, *M* = 3.65, *SD* = 1.84.

Fear was measured with three items: fearful, afraid, and scared. Prior research has reported strong reliability for this measure across three administrations, α = .83, .94, and .91 (Dillard & Anderson, 2004). In the present study, the fear scale demonstrated excellent reliability across the three message variants: grocery mass shooting message, α = .96, *M* = 3.67, *SD* = 1.98; high school mass shooting message, α = .97, *M* = 3.69, *SD* = 1.97; and music festival mass shooting news stimuli, α = .96, *M* = 3.66, *SD* = 1.94.

Hopefulness was measured with two items: hopeful and inspired. Because this measure consisted of two items, reliability was assessed using the inter-item correlation rather than Cronbach's alpha. Prior research has reported a significant inter-item correlation for this measure, $r = .53$, $p < .001$ (Nabi et al., 2014). In the present study, the two hopefulness items were strongly correlated across the three message variants: grocery mass shooting message, $r = .79$, $p < .001$, *M* = 2.26, *SD* = 1.60; high school mass shooting message, $r = .80$, $p < .001$, *M* = 2.20, *SD* = 1.57; and music festival mass shooting message, $r = .82$, $p < .001$, *M* = 2.17, *SD* = 1.58.

3.3.5. Psychological Proximity

As demonstrated in the Literature Review chapter, four dimensions—temporal, spatial, social, and hypothetical proximity to crime—together constitute psychological proximity (Gouseti & Jackson, 2015). Accordingly, to measure psychological proximity, the four dimensions ought to be taken into consideration (Mellberg et al., 2025). Adapting items from

Mellberg and colleagues (2022), the present study asked participants to indicate their agreement with four statements measuring perceived temporal, spatial, social, and hypothetical proximity to crime, respectively, using a seven-point response scale ranging from 1 = "strongly disagree" to 7 = "strongly agree." The item measuring temporal proximity is: "A mass shooting like the one reported in the news article could happen in the near future." The item measuring spatial proximity is: "A mass shooting like the one reported in the news article could happen close to where I live." The item measuring social proximity is: "A mass shooting like the one reported in the news article could happen to people like me or people I care about." The item measuring hypothetical proximity is: "A mass shooting like the one reported in the news article feels realistic rather than unlikely."

However, the Cronbach's alpha values reported in Mellberg and colleagues' (2022) study have limited reference value because the spatial proximity item did not perform well. Specifically, the item asked whether respondents thought they could become a victim of crime in a location close to them or far away from them, which sounded vague to respondents. As Mellberg and colleagues (2022) recommended in their discussion, this item should be improved by directly asking respondents whether they believe they could become a victim of crime in their surrounding environment. The present study revised the spatial proximity item accordingly by asking participants whether a mass shooting like the one reported in the news article could happen close to where they live.

Consistent with the theoretical framework developed in the Literature Review chapter, psychological proximity was also examined as a potential mediator in the proposed model. In the present study, the four-item psychological proximity scale demonstrated strong reliability across the three message variants: grocery mass shooting message, $\alpha = .86$, $M = 5.90$, $SD = .97$; high

school mass shooting message, α = .82, *M* = 5.87, *SD* = .94; and music festival mass shooting message, α = .84, *M* = 5.83, *SD* = 1.01. These results indicate that the revised psychological proximity scale demonstrated adequate internal consistency across message variants.

3.3.6. Fear of Crime

Fear of crime embodies a blended psychological experience that includes fear, anxiety, worry, nervous tension, and feelings of insecurity or vulnerability to crime (Etopio & Berthelot, 2022). This variable is distinct from discrete fear, as previously discussed in the Literature Review chapter. Discrete fear refers to a direct emotional response elicited by the stimulus itself, namely, the mass shooting violence and victims' experiences covered in the news. Fear of crime, by contrast, reflects an emotional reaction that, although evoked by exposure to news about mass shooting violence, is directed primarily toward one's real-life environment rather than toward the message alone.

In the present study, fear of crime was measured using two items adapted from Etopio and Berthelot (2022). Participants indicated the extent to which they agreed with the statements "I'm afraid of a crime happening to me" and "I feel vulnerable to becoming the victim of a crime" on a 7-point response scale ranging from 1 = "strongly disagree" to 7 = "strongly agree." The two items were strongly correlated across the three message variants: grocery mass shooting message, *r* = .86, *M* = 4.60, *SD* = 1.68; high school mass shooting message, *r* = .83, *M* = 4.55, *SD* = 1.62; and music festival mass shooting news stimuli, *r* = .82, *M* = 4.57, *SD* = 1.65. These results indicated that the two items demonstrated strong internal consistency across message variants.

3.3.7. Civic Engagement Intentions

As discussed in the Literature Review chapter, civic engagement intentions are grounded in community and trust (Ekman & Amnå, 2022). Civic engagement intentions could encourage individuals to participate actively in both personal and collective spheres, supporting communities through collaboratively developed responses to social and civic challenges, strengthened community connections, and greater opportunities for participatory decision-making and democratic governance within local institutions (Shaw et al., 2014, p. 10). In this regard, the present study adapted the civic engagement intentions scale developed by Doolittle and Faul (2013), particularly the 8-item subscale ($\alpha = .91$) that measures the attitudinal component of civic engagement on a seven-point response scale ranging from 1 = "strongly disagree" to 7 = "strongly agree." This subscale assesses the extent to which participants agree with the importance of engaging in community development and their intention to take action to make a difference. Another subscale measures the behavioral component of civic engagement, but it was not employed in this study because it asks about the degree to which participants have already been involved in community development. This reflects the current status of civic engagement behaviors rather than participants' intentions to engage civically after exposure to stimuli (i.e., news on mass shooting violence), which is the focus of this study.

The eight items measuring civic engagement intention are: (1) "I feel responsible for my community;" (2) "I believe I should make a difference in my community;" (3) "I believe that I have a responsibility to help the poor and the hungry;" (4) "I am committed to serve in my community;" (5) "I believe that all citizens have a responsibility to their community;" (6) "I believe that it is important to be informed of community issues;" (7) "I believe that it is important to volunteer;" (8) "I believe that it is important to financially support charitable organizations." In the present study, the civic engagement intention scale demonstrated excellent

reliability across the three message variants: grocery mass shooting message, α = .92, *M* = 5.05, *SD* = 1.17; high school mass shooting message, α = .93, *M* = 5.04, *SD* = 1.17; and music festival mass shooting message, α = .93, *M* = 5.04, *SD* = 1.19. These results indicate that the eight-item scale demonstrated strong internal consistency across message variants.

3.3.8. Perceived News Credibility, Newsworthiness, and News Quality

The measure of perceived news credibility consisted of five bipolar pairs rated on a 7-point response scale: unfair versus fair, unbiased versus biased, inaccurate versus accurate, untrustworthy versus trustworthy, and does not tell the whole story versus tells the whole story. Items were coded so that higher scores indicated greater perceived news credibility. The original measure demonstrated acceptable reliability, α = .85, and was well suited to the present study because it directly captures participants' perceptions of message believability. In the present study, the perceived news credibility scale demonstrated acceptable reliability across the three message variants: grocery mass shooting message, α = .76, *M* = 5.05, *SD* = 1.02; high school mass shooting message, α = .79, *M* = 5.06, *SD* = 1.08; and music festival mass shooting message, α = .79, *M* = 5.04, *SD* = 1.07.

This study also assessed perceived newsworthiness and perceived news quality. Perceived newsworthiness was measured using five bipolar adjective pairs rated on 7-point response scales (Mayo & Leshner, 2000): unimportant versus important, uninteresting versus interesting, uninformative versus informative, not serious versus serious, and not disturbing versus disturbing. Items were coded so that higher scores indicated greater perceived newsworthiness. This original measure demonstrated acceptable reliability, α = .81. In the present study, the perceived newsworthiness scale demonstrated acceptable reliability across the three message variants: grocery mass shooting message, α = .81, *M* = 5.84, *SD* = .91; high school

mass shooting message, α = .80, *M* = 5.88, *SD* = .89; and music festival mass shooting message, α = .78, *M* = 5.84, *SD* = .89.

Perceived news quality was measured with a single item on a 7-point scale (Mayo & Leshner, 2000). Participants evaluated the overall quality of the news message, ranging from 1 = "very poor quality" to 7 = "excellent quality." Because perceived news quality was measured with a single item, internal consistency reliability was not applicable. Descriptively, perceived news quality was above the scale midpoint across the three message variants: grocery mass shooting message, M = 5.43, SD = 1.08; high school mass shooting message, M = 5.40, SD = 1.11; and music festival mass shooting message, M = 5.40, SD = 1.09.

3.3.9. Demographic Variables

The present study collected basic demographic information from participants, including age, gender, race/ethnicity, and political ideology. These variables were collected to describe the analytic sample, evaluate the comparability of experimental groups after random assignment, and assess whether any demographic variables should be included as covariates or control variables. Demographic characteristics were also considered theoretically relevant because they may shape how participants perceive and respond to news about mass shooting violence. Including relevant control variables can help account for potential confounding influences and improve the accuracy of estimated effects by explaining additional variance in statistical models (Memon et al., 2024).

Prior to the main analyses, demographic variables were therefore assessed to determine whether they should be included as covariates or control variables. Age and political ideology were examined using factorial ANOVAs with responsibility framing, content structure, and localization in news reporting as fixed factors. Gender and race/ethnicity were examined using

crosstabulations and chi-square tests across the eight experimental conditions because they were categorical variables. These analyses were used to assess whether random assignment produced comparable demographic distributions across conditions. Because the analyses did not indicate systematic demographic imbalance across experimental conditions, age, gender, ethnicity, and political ideology were not included as covariates or control variables in the main mixed-design ANOVAs or mediation models. Additional statistical details are presented in the Results chapter.

3.4. Stimuli Design

Because three independent variables—responsibility framing, content structures, and localization in news reporting—were manipulated between subjects, and message variance was manipulated within subjects, the experiment included eight message conditions. Specifically, participants were randomly assigned to one of eight conditions in a 2 (responsibility framing: individual vs. structural) × 2 (content structures: narrative vs. non-narrative) × 2 (localization in news reporting: community vs. national news perspective) between-subjects design. In each condition, participants read three news messages reflecting the assigned combination, with each message covering a mass shooting incident at a grocery store, a high school, or a music festival. This approach could help minimize potential confounding effects attributable to incident-specific differences across stimuli.

Therefore, 24 stimuli were created for the present study's experiment. As stated, these stimuli were approximately 270-word fictional, text-based news messages. The messages included several characters: a survivor who shares their experience during the mass shooting, a deceased victim's family member who expresses sorrow, a sheriff who discusses the shooter's status and the crime scene, and a criminologist who comments on potentially effective solutions for alleviating mass shooting violence in the U.S. All personal names were fictional and gender-

neutral. For details regarding the manipulation of the independent variables, see the first section of this chapter.

Moreover, before being exposed to the stimuli, participants were provided with scenario-setting information indicating that they would read three news reports adapted from real reports about three mass shooting incidents in the U.S., occurring outside the state in which they live. Participants were also informed that the names of people, places, institutions, and news outlets in the three reports had been replaced with fictional ones to prevent real-world details from influencing their judgments. This deception was intended to increase the realism of the experimental conditions and was disclosed to participants during debriefing after they completed the experiment.

3.5. Pretest

A manipulation-check pretest was conducted to assess whether the stimuli clearly reflected the intended levels of the three manipulated message attributes: responsibility framing, content structures, and localization in news reporting. Two independent coders coded all 24 experimental stimuli in randomized order. The stimuli represented all combinations of the 2 (responsibility framing: individual-level vs. structural-level) × 2 (content structures: narrative vs. non-narrative) × 2 (localization in news reporting: community vs. national news perspective) design across the three message variants: grocery, high school, and music festival mass shooting messages. The coding task was administered through Qualtrics. For each stimulus, coders entered the assigned article ID and made three coding decisions, one for each manipulated variable, resulting in 72 coding decisions per coder.

Before coding, coders completed two training meetings. In the first meeting, the researcher explained the coding definitions and rules and assigned three practice examples. In the

second meeting, the researcher and coders reviewed the practice coding decisions together to confirm the coders' understanding of the coding procedure. For responsibility framing, coders indicated whether each article primarily attributed the causes of or solutions to the mass shooting to individual-level factors, such as attitudes, actions, or personal choices, or to structural-level factors, such as institutions, social conditions, or broader social systems. For content structures, coders indicated whether the article presented information narratively, as a story using vivid language that encouraged readers to visualize events, or non-narratively, in a straightforward, concise, neutral, and informative manner. For localization in news reporting, coders indicated whether the article adopted a community news perspective, emphasizing relevance to the local community and issues affecting local residents, or a national news perspective, emphasizing relevance to the country as a whole.

Intercoder reliability was assessed using Holsti's reliability for each variable, with .80 used as the minimum acceptable threshold. The coders reached full agreement on responsibility framing, Holsti's reliability = 1.00. Agreement was also strong for content structures, Holsti's reliability = .92, and localization in news reporting, Holsti's reliability = .96. These results indicated that the stimuli were sufficiently clear and distinguishable with respect to the intended manipulations. In addition, a small survey pilot was conducted with 10 participants to evaluate the expected completion time and identify potentially confusing survey items. The results indicated that the study took approximately 25 to 30 minutes to complete. Pilot participants did not report confusion or concerns about the survey statements, and no issues were identified regarding response-time variation or skipped items. These results suggested that the survey length, item clarity, and response process were appropriate before finalizing the online experiment.

3.6. Procedure

As stated, the experiment was administered online so that participants could complete it at their convenience. Informed consent was provided and obtained before participants began the experiment. Participants then read the stimuli—news messages about mass shooting violence—on their own devices (e.g., a phone, tablet, laptop, or desktop computer). After viewing each stimulus, participants completed a self-report questionnaire battery, and this process was repeated for all three messages. After reading the final stimulus and completing the final questionnaire battery, participants were debriefed, compensated, thanked, and automatically dismissed online. The full questionnaire is provided in Appendix B, and the experimental news stimuli are provided in Appendix C.

3.7. Data Analysis

Interaction effects, as well as the main effects of interest, were analyzed using mixed-design ANOVAs in SPSS, with demographic variables found to be correlated with the outcome variables entered as covariates. In addition, Hayes's PROCESS macro was used to test the two hypothesized mediation models (i.e., H11 and H12) described in the Literature Review chapter, controlling for demographic variables. Specifically, the analyses tested whether a higher level of localization in mass shooting news coverage would increase psychological proximity to the violence described, which in turn would increase fear of crime (H11) and civic engagement intentions (H12). After these analyses, the findings are presented in the Results and Discussion and Conclusion chapters.

Chapter 4. Results

This chapter presents the results of the study in several stages. First, data screening and preliminary analyses are reported, including sample size, missing data, demographic

characteristics, and randomization checks. Second, as a supplement to the Methodology chapter, the construction of dependent variables and mediators is described. Third, assumption checks for the analytic procedures are reported before the main analyses are presented. Mixed-design repeated-measures ANOVAs were conducted to examine the effects of responsibility framing, content structures, and localization in news reporting while taking into account for variation across the three message variants: grocery, high school, and music festival mass shooting messages. Follow-up simple-effects analyses were conducted for statistically significant interaction effects and are reported with the corresponding main analysis results. Finally, mediation analyses conducted using Hayes's PROCESS macro are presented.

4.1. Data Screening and Preliminary Analyses

4.1.1. Sample Size and Missing Data

The original sample included 502 participants. After screening for speeding or implausibly short completion times, patterned responding, and response completeness, 16 participants (3.2%) were excluded for failing at least one attention-check question. The attention-check questions instructed participants to select a specific response option: (1) "Please select 'Strongly agree' from the options below to help ensure this survey is functioning as intended" and (2) "To help us confirm that responses are being recorded carefully, please select 'Blue' from the options below." No cases of speeding or implausibly short completion times, patterned responding, or incomplete responses were observed. Some participants selected "Prefer not to say" for certain demographic questions; these responses were treated as missing data. The final analytic sample therefore included $N = 486$ participants.

Missing data were inspected before analysis. No missing data were found for the dependent variables. For the demographic variables, all participants selected a response option

for each question; however, as stated, responses of "Prefer not to say" were recoded as system-missing values because they did not provide substantive demographic information. Listwise deletion was applied in subsequent analyses where applicable.

4.1.2. Demographic Characteristics

Age data were available for 482 participants after "Prefer not to say" responses were treated as missing. As shown in Table 2, participants ranged in age from 19 to 78 years (M = 42.13, SD = 12.52). Gender data were available for 484 participants. Of these participants, 242 identified as women (50.0%), 240 identified as men (49.6%), and 2 identified as non-binary (0.4%). Race/ethnicity data were also available for 484 participants. Most participants identified as White (n = 335, 69.2%), followed by Black or African American (n = 81, 16.7%), Hispanic or Latino (n = 31, 6.4%), Asian (n = 24, 5.0%), multiracial (n =11, 2.3%), American Indian or Alaska Native (n = 1, 0.2%), and other race/ethnicity (i.e., Mali, Puerto Rico; n = 1, 0.2%).

Political ideology data were available for 481 participants. On a 1–7 scale, where 1 = extremely liberal, 2 = liberal, 3 = slightly liberal, 4 = moderate, 5 = slightly conservative, 6 = conservative, and 7 = extremely conservative. Participants' political ideology ranged from 1 to 7 (M = 3.75, SD = 1.97), with higher scores indicating more conservative political ideology. Specifically, 68 participants identified as extremely liberal (14.1%), 111 as liberal (23.1%), 41 as slightly liberal (8.5%), 91 as moderate (18.9%), 47 as slightly conservative (9.8%), 70 as conservative (14.6%), and 53 as extremely conservative (11.0%).

Table 2

Participant Demographic Characteristics

Characteristic	Valid *N*	*n*	%	*M*	*SD*	Range
Age	482	—	—	42.13	12.25	19–78
Gender identity	484	—	—	—	—	—

Woman	—	242	50.0	—	—	—
Man	—	240	49.6	—	—	—
Non-binary	—	2	0.4	—	—	—
Race/ethnicity	484	—	—	—	—	—
White	—	335	69.2	—	—	—
Black or African American	—	81	16.7	—	—	—
Hispanic or Latino	—	31	6.4	—	—	—
Asian	—	24	5.0	—	—	—
American Indian or Alaska Native	—	1	0.2	—	—	—
Multiracial	—	11	2.3	—	—	—
Other	—	1	0.2	—	—	—
Political ideology	481	—	—	3.75	1.97	1–7

Note. Valid *N* indicates the number of non-missing responses for each demographic variable. *n* indicates the frequency for each categorical response option. Percentages are valid percentages based on non-missing responses. Political ideology was measured on a 1–7 scale, with higher scores signifying more conservative political views. Dashes indicate that the statistic is not applicable. *M* = mean; *SD* = standard deviation.

4.1.3. Condition Assignment and Randomization Balance Checks

Frequencies were first examined to assess assignment across the eight experimental conditions. Participants were approximately evenly distributed across conditions, with cell sizes ranging from 57 to 63 participants. Specifically, Conditions 1, 2, 3, 4, 5, 6, 7, and 8 included 63 (13.0%), 62 (12.8%), 63 (13.0%), 59 (12.1%), 63 (13.0%), 59 (12.1%), 60 (12.3%), and 57 (11.7%) participants, respectively.

Randomization balance checks were then conducted to examine whether demographic characteristics differed across the experimental conditions and to determine whether they should be included as covariates in the main analyses. Age and political ideology were examined using factorial ANOVAs with responsibility framing, content structures, and localization in news reporting as fixed factors. Gender and race/ethnicity are categorical variables, so they were examined using crosstabulations and chi-square tests across the eight experimental conditions.

For age, the analysis included 482 participants after "Prefer not to say" responses were treated as missing. A factorial ANOVA was conducted. Levene's test was not statistically significant, $p = .862$, indicating that the homogeneity of variance assumption was met. The overall model was not statistically significant, $F(7, 474) = 1.11$, $p = .358$, $\eta^2_p = .016$, suggesting that age did not differ significantly across the experimental conditions. For political ideology, the analysis included 481 participants with valid data. Levene's test was not statistically significant, $p = .354$, and the overall model was not statistically significant, $F(7, 473) = 0.99$, $p = .440$, $\eta^2_p = .014$, suggesting that political ideology did not differ significantly across the experimental conditions.

For gender, a crosstabulation and chi-square test were conducted after gender was recoded as woman versus man. The two participants who identified as non-binary were excluded from this chi-square test because of the very small cell size. Among participants with 484 valid data on the recoded gender variable, 242 identified as women and 240 identified as men. The chi-square test was not statistically significant, $\chi^2(7, N = 482) = 2.07$, $p = .956$, indicating that gender distribution did not significantly differ across the eight experimental conditions. Race/ethnicity was also recoded for the chi-square test because several original race/ethnicity categories had small frequencies. Specifically, race/ethnicity was collapsed into White versus non-White categories. Among participants with 484 valid data on the recoded race/ethnicity variable, 335 identified as White and 149 identified as non-White or racial or ethnic minority. Race/ethnicity distribution did not significantly differ across conditions, $\chi^2(7, N = 484) = 12.36$, $p = .089$. Taken together, these results did not indicate systematic demographic imbalance across the experimental conditions. Therefore, age, gender, race/ethnicity, and political ideology were

not included as covariates or control variables in the main mixed-design ANOVAs or mediation models.

4.1.4. Distributional Diagnostics

After the randomization balance checks, distributional diagnostics were examined for the message-specific study variables used in the main analyses. These diagnostics were carried out to evaluate the distributions of the analysis variables before proceeding to the main hypothesis tests. All these variables had complete data, $N = 486$. Observed minimum values ranged from 1.00 to 2.75, and all variables had maximum values of 7.00, indicating that responses and computed composites fell within the valid 1–7 response range. Kolmogorov-Smirnov tests with Lilliefors correction and Shapiro-Wilk tests were statistically significant for all variables, $p < .001$. Specifically, Kolmogorov-Smirnov statistics ranged from .063 to .268, and Shapiro-Wilk statistics ranged from .762 to .984. Given the large sample size and the bounded Likert-type response scales, the significant normality tests were interpreted cautiously. In addition, across the study variables, skewness values ranged from –1.46 to 1.28, and kurtosis values ranged from –1.32 to 2.53. Histograms, normal Q-Q plots, and boxplots were also reviewed. These visual diagnostics did not indicate severe departures from normality or extreme outliers that would require removing cases or transforming the variables. Therefore, the study variables were retained for subsequent analyses.

4.1.5. Zero-Order Correlations Among Message-Specific Variables

After completing the distributional diagnostics, zero-order correlations were examined separately for the message-specific composites to provide an overview of the bivariate associations among the key study variables before the main hypothesis tests. As described in the Methodology chapter, message variant was retained as a within-subject factor rather than

collapsing responses across the grocery, high school, and music festival messages. Accordingly, the measured variables were retained as message-specific composites in the analyses. The zero-order correlations are presented in Table 3 and summarize the relationships among participants' causal and treatment responsibility attributions for the mass shooting issue, narrative engagement, discrete emotions, psychological proximity, fear of crime, civic engagement intentions, and perceived message credibility, newsworthiness, and quality.

4.2. Hypothesis Testing

4.2.1. Assumption Checks

Assumption Checks for Mixed-Design Repeated-Measures ANOVAs. Assumptions specific to the mixed-design repeated-measures ANOVAs were examined before the hypothesis tests were interpreted. Because each outcome variable was measured across three message variants—grocery store, high school, and music festival—Mauchly's test was used to evaluate whether the sphericity assumption was met for each outcome variable. Mauchly's test was not statistically significant for 14 of the 18 outcome variables, indicating that the sphericity assumption was met for most analyses. Four outcomes showed statistically significant Mauchly's tests: high-risk-access causal attribution, $W = .986$, $\chi^2(2) = 6.69$, $p = .035$, Greenhouse-Geisser epsilon = .986; individual-level treatment attribution, $W = .978$, $\chi^2(2) = 10.81$, $p = .004$, Greenhouse-Geisser epsilon = .978; anger, $W = .972$, $\chi^2(2) = 13.78$, $p = .001$, Greenhouse-Geisser epsilon = .972; and hopefulness, $W = .986$, $\chi^2(2) = 6.61$, $p = .037$, Greenhouse-Geisser epsilon = .986. Across all outcomes, Greenhouse-Geisser epsilon values ranged from .972 to 1.000, indicating that the sphericity violations were minor. Accordingly, Greenhouse-Geisser-corrected results were used when Mauchly's test was significant.

Table 3 (1/3)

Zero-Order Correlations for the Grocery Message

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Indiv. causal	3.79	1.55	—																	
2. Structural causal	4.70	1.41	.02	—																
3. Indiv. treatment	4.05	1.56	.85***	-.04	—															
4. Structural treatment	4.85	1.34	-.02	.86***	-.06	—														
5. MI causal	5.72	1.33	.05	.08	.06	.07	—													
6. MI treatment	5.75	1.25	-.02	.18***	-.03	.20***	.62***	—												
7. HRA causal	5.78	1.42	-.27***	.31***	-.32***	.29***	.21***	.35***	—											
8. HRA treatment	5.81	1.39	-.29***	.29***	-.32***	.31***	.21***	.35***	.78***	—										
9. Narrative engagement	5.33	0.84	-.13**	.10*	-.11*	.13**	.21***	.28***	.25***	.27***	—									
10. Anger	3.68	1.82	.17***	.18***	.15**	.18***	.05	.10*	.06	.08	.15**	—								
11. Fear	3.67	1.98	.08	.19***	.04	.18***	.05	.15**	.16***	.16***	.30***	.53***	—							
12. Hopefulness	2.26	1.60	.29***	.10*	.24***	.13**	-.14**	-.17***	-.15**	-.12**	-.24***	.16***	.23***	—						
13. Psych. proximity	5.90	0.97	-.19***	.06	-.17***	.05	.19***	.30***	.27***	.27***	.42***	.09	.13**	-.31***	—					
14. Fear of crime	4.60	1.68	.10*	.14**	.08	.13**	.07	.19***	.20***	.26***	.26***	.28***	.54***	.10*	.29***	—				
15. Civic engagement	5.05	1.17	.01	.34***	.01	.38***	.10*	.17***	.22***	.23***	.33***	.22***	.30***	.19***	.17***	.25***	—			
16. News credibility	5.05	1.02	-.09*	.23***	-.15***	.26***	.12**	.16***	.24***	.25***	.31***	-.00	.12**	-.02	.21***	.18***	.22***	—		
17. Newsworthiness	5.84	0.91	-.14**	.11*	-.11*	.14**	.24***	.32***	.29***	.31***	.62***	.19***	.27***	-.15***	.46***	.27***	.40***	.43***	—	
18. News quality	5.43	1.08	-.08	.17***	-.09	.20***	.14**	.18***	.29***	.29***	.37***	.11*	.26***	.09*	.29***	.30***	.29***	.63***	.57***	—

Note. $N = 486$. Values are Pearson zero-order correlations. Correlations are presented below the diagonal. *M* = mean; *SD* = standard deviation. * $p < .05$. ** $p < .01$. *** $p < .001$. Variable labels were shortened for readability: Indiv. causal = individual-level causal responsibility attributions; structural causal = structural-level causal responsibility attributions; Indiv. treatment = individual-level treatment responsibility attributions; structural treatment = structural-level treatment responsibility attributions; MI = mental-illness; HRA = high-risk-access; psych. proximity = psychological proximity; news credibility, newsworthiness, and news quality refer to perceived news credibility, perceived newsworthiness, and perceived overall news quality, respectively.

Table 3 (2/3)

Zero-Order Correlations for the High School Message

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Indiv. causal	3.82	1.50	—																	
2. Structural causal	4.74	1.42	.02	—																
3. Indiv. treatment	4.06	1.56	.84***	-.01	—															
4. Structural treatment	4.89	1.37	.00	.84***	-.01	—														
5. MI causal	5.70	1.35	.04	.11*	.05	.07	—													
6. MI treatment	5.78	1.19	-.07	.20***	-.03	.21***	.65***	—												
7. HRA causal	5.72	1.45	-.26***	.32***	-.34***	.31***	.22***	.31***	—											
8. HRA treatment	5.81	1.35	-.31***	.32***	-.32***	.36***	.23***	.38***	.75***	—										
9. Narrative engagement	5.36	0.88	-.09*	.10*	-.04	.14**	.33***	.32***	.25***	.28***	—									
10. Anger	3.79	1.86	.11*	.13**	.12**	.17***	.07	.09*	.04	.08	.15**	—								
11. Fear	3.69	1.97	.02	.22***	.05	.25***	.09*	.18***	.15***	.17***	.35***	.53***	—							
12. Hopefulness	2.20	1.57	.27***	.10*	.29***	.12**	-.20***	-.16***	-.17***	-.14**	-.26***	.17***	.21***	—						
13. Psych. proximity	5.87	0.94	-.20***	.03	-.20***	.04	.29***	.28***	.26***	.25***	.43***	.05	.11*	-.38***	—					
14. Fear of crime	4.55	1.62	.03	.20***	.06	.17***	.13**	.15***	.24***	.25***	.25***	.27***	.54***	.07	.28***	—				
15. Civic engagement	5.04	1.17	.01	.39***	.07	.42***	.06	.17***	.21***	.24***	.32***	.23***	.33***	.17***	.15***	.27***	—			
16. News credibility	5.06	1.08	-.10*	.23***	-.05	.24***	.19***	.26***	.25***	.23***	.33***	-.06	.15**	-.06	.26***	.17***	.23***	—		
17. Newsworthiness	5.88	0.89	-.13**	.13**	-.08	.18***	.29***	.34***	.28***	.32***	.65***	.19***	.31***	-.18***	.46***	.23***	.39***	.50***	—	
18. News quality	5.40	1.11	-.06	.21***	.02	.26***	.19***	.31***	.24***	.27***	.41***	.11*	.29***	.07	.27***	.28***	.32***	.64***	.57***	—

Note. $N = 486$. Values below the diagonal are zero-order Pearson correlations. Variable-name abbreviations and significance markers are the same as those reported in Table 3(1/3).

Table 3 (3/3)

Zero-Order Correlations for the Music Festival Message

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Indiv. causal	3.84	1.54	—																	
2. Structural causal	4.67	1.45	.05	—																
3. Indiv. treatment	4.02	1.53	.86***	.03	—															
4. Structural treatment	4.85	1.38	-.00	.84***	-.00	—														
5. MI causal	5.69	1.32	.09*	.07	.10*	.05	—													
6. MI treatment	5.69	1.31	-.04	.16***	-.03	.26***	.59***	—												
7. HRA causal	5.69	1.45	-.24***	.31***	-.27***	.29***	.25***	.33***	—											
8. HRA treatment	5.77	1.40	-.27***	.25***	-.28***	.34***	.17***	.37***	.75***	—										
9. Narrative engagement	5.29	0.88	-.16***	.07	-.12*	.15**	.18***	.29***	.23***	.26***	—									
10. Anger	3.65	1.84	.16***	.14**	.15***	.16***	.03	.08	.06	.10*	.19***	—								
11. Fear	3.66	1.94	.08	.20***	.09*	.24***	.04	.14**	.12**	.16***	.31***	.52***	—							
12. Hopefulness	2.17	1.58	.24***	.13**	.26***	.15**	-.15***	-.13**	-.13**	-.11*	-.18***	.18***	.26***	—						
13. Psych. proximity	5.83	1.01	-.20***	.00	-.17***	.05	.18***	.27***	.23***	.29***	.40***	.11*	.10*	-.27***	—					
14. Fear of crime	4.57	1.65	.06	.13**	.09	.18***	.05	.19***	.19***	.25***	.26***	.30***	.56***	.13**	.26***	—				
15. Civic engagement	5.03	1.19	.01	.36***	.04	.40***	.09*	.22***	.21***	.25***	.35***	.27***	.33***	.19***	.18***	.28***	—			
16. News credibility	5.04	1.07	-.11*	.25***	-.09	.29***	.14**	.24***	.26***	.27***	.33***	-.03	.15**	.01	.24***	.17***	.23***	—		
17. Newsworthiness	5.84	0.89	-.14**	.12**	-.10*	.14**	.20***	.32***	.25***	.31***	.61***	.17***	.23***	-.17***	.46***	.24***	.41***	.47***	—	
18. News quality	5.40	1.09	-.07	.19***	-.05	.25***	.16***	.23***	.19***	.23***	.34***	.08	.22***	.13**	.23***	.26***	.30***	.63***	.53***	—

Note. $N = 486$. Values below the diagonal are zero-order Pearson correlations. Variable-name abbreviations and significance markers are the same as those reported in Table 3(1/3).

Homogeneity of error variances was evaluated using Levene's tests based on the mean for each message-specific dependent variable across the eight between-subject experimental conditions. Of the 54 Levene's tests examined, 45 were not statistically significant and 9 were statistically significant. Significant Levene's tests were observed for mental-illness causal attribution for the grocery and music festival messages, mental-illness treatment attribution for the grocery message, hopefulness across all three message variants, fear of crime for the high school message, and civic engagement intentions for the grocery and music festival messages. Among the significant tests, $F(7, 478)$ values ranged from 2.19 to 3.35, with p values ranging from .002 to .034. Because the experimental cell sizes were approximately balanced, these violations were interpreted cautiously rather than used as grounds for excluding the variables from analysis.

Box's tests were statistically significant for 17 of the 18 outcome variables, with anger as the only nonsignificant test, $p = .059$. Box's test is sensitive to large sample sizes; thus, these results were treated as cautionary diagnostics rather than as grounds for rejecting the planned analyses. Taken together, the assumption-check results indicated that the mixed-design repeated-measures ANOVAs were appropriate to conduct, with Greenhouse-Geisser corrections applied where sphericity was violated and with results involving significant Levene's tests interpreted cautiously.

Assumption Checks for PROCESS Model 4 Mediation Analyses. Assumptions for regression-based mediation analyses were assessed before running PROCESS Model 4. Variables were inspected for coding accuracy, missing data, and valid response ranges. For mediation path analyses, the manipulated variable, localization in news reporting, was coded as 0 = national and 1 = local, with 237 participants in the national news perspective condition and 249

participants in the community news perspective condition. No missing cases were observed for the mediator or outcome variables included in the mediation assumption checks, including psychological proximity, fear of crime, and civic engagement intentions ($N = 486$), and all values were within their valid response ranges.

Scatterplots of psychological proximity with fear of crime and civic engagement across the grocery, school, and festival message variants showed no clear evidence of nonlinear relationships. Histograms and normal P-P plots of standardized residuals showed no severe departures from normality. Plots of standardized residuals against standardized predicted values showed that residuals were distributed above and below zero without a clear funnel-shaped pattern, pointing to no severe violation of homoscedasticity. Although some vertical banding was observed, this pattern was expected given the limited Likert-type response scales of the variables. Overall, the diagnostic plots did not indicate severe violations of linearity, normality of residuals, or homoscedasticity.

Standardized residuals, Cook's distance values, and leverage values were inspected to evaluate outliers and influential cases. Some standardized residuals exceeded the conventional ±3 guideline, with standardized residuals ranging from approximately -4.82 to 2.00 across the regression models. However, Cook's distance values were well below 1, with the largest value approximately .098, and centered leverage values were not extreme, with the largest value approximately .050. Therefore, although a small number of residual outliers were present, no cases appeared to exert undue influence on the regression models. Multicollinearity was also assessed for the outcome regression models. Tolerance values ranged from approximately .996 to .998, and VIF values ranged from approximately 1.002 to 1.004, indicating that multicollinearity was not a concern. Taken together, the assumption checks did not indicate

severe violations of linearity, normality of residuals, homoscedasticity, or multicollinearity, and no cases appeared to exert undue influence on the regression models. Therefore, the regression-based mediation analyses were considered appropriate to conduct. The full list of hypotheses is presented in Table 4.

4.2.2. Mixed-Design Repeated-Measures ANOVA Results

Mixed-design repeated-measures ANOVAs were conducted to test the proposed hypotheses regarding the effects of responsibility framing, content structures, localization in news reporting, and their interactions on participants' causal and treatment responsibility attributions, narrative engagement, discrete emotions, psychological proximity, fear of crime, civic engagement intentions, and perceived message credibility, newsworthiness, and quality, while accounting for variation across the three message variants. Message variance (grocery store, high school, and music festival mass shooting news messages) was modeled as the within-subject factor. Responsibility framing, content structures, and localization in news reporting were modeled as between-subject factors.

The primary effects of interest were the between-subjects main effects and interactions involving responsibility framing, content structures, and localization in news reporting. Interactions involving message variance were examined to determine whether the experimental effects varied across the three message topics. When Mauchly's test indicated a violation of sphericity, Greenhouse-Geisser-corrected results were reported. Relevant model statistics, including main effects and interaction effects, are reported in Table 5.

Follow-up simple-effects analyses were conducted for significant interactions. For interactions involving message variance, the relevant effects were examined separately for the grocery, high school, and music festival message variants. For significant interactions among the

main experimental factors, follow-up simple-effects analyses using estimated marginal means were conducted to clarify the pattern of the interaction. Pairwise comparisons based on estimated marginal means were Bonferroni-adjusted. Related follow-up statistics are reported in Table 6.

Responsibility Framing and Responsibility Attributions for the Mass Shooting Issue. The first hypothesis family examined whether responsibility framing influenced participants' causal and treatment responsibility attributions for the mass shooting issue. Specifically, H1 predicted that, compared to exposure to individual-level responsibility framing, exposure to structural-level responsibility framing would be related to greater structural-level causal responsibility attributions (H1a) and structural-level treatment responsibility attributions (H1b). These hypotheses were not supported. For structural-level causal responsibility attributions, the main effect of message variance, interactions involving message variance, and all between-subjects main effects and interactions were not statistically significant.

For structural-level treatment responsibility attributions, the main effect of message variance was not statistically significant. Although the interaction among message variance, responsibility framing, content structures, and localization in news reporting was statistically significant, $F(2, 956) = 3.59$, $p = .028$, $\eta^2_p = .007$, follow-up analyses showed that the interaction among responsibility framing, content structures, and localization in news reporting was not statistically significant within the grocery message, $F(1, 478) = 0.42$, $p = .518$; high school message, $F(1, 478) = 0.02$, $p = .891$; or music festival message, $F(1, 478) = 0.64$, $p = .425$. The between-subjects main effects and interactions were also not statistically significant.

Although the predicted movement toward structural-level responsibility attributions was not supported, individual-level responsibility framing was associated with movement toward the individual-level end of the causal and treatment responsibility attribution scales. For individual-

level causal responsibility attributions, the main effect of individual-level responsibility framing was statistically significant, $F(1, 478) = 9.25$, $p = .002$, $\eta^2_p = .019$. Participants in the individual-level responsibility framing condition ($M = 4.01$, $SE = 0.09$) reported higher individual-level causal responsibility attributions than participants in the structural-level responsibility framing condition ($M = 3.61$, $SE = 0.09$), mean difference = 0.40, $SE = 0.13$, $p = .002$. Similarly, for individual-level treatment responsibility attributions, the main effect of individual-level responsibility framing was statistically significant, $F(1, 478) = 7.83$, $p = .005$, $\eta^2_p = .016$. Participants in the individual-level responsibility framing condition ($M = 4.23$, $SE = 0.09$) reported higher individual-level treatment responsibility attributions than participants in the structural-level responsibility framing condition ($M = 3.85$, $SE = 0.09$), mean difference = 0.37, $SE = 0.13$, $p = .005$.

The hypotheses also predicted several interaction effects involving responsibility framing on participants' causal and treatment responsibility attributions. H3a and H3b predicted interactions between content structures and responsibility framing. These interactions were not statistically significant for individual-level causal attributions, $F(1, 478) = 0.48$, $p = .489$, $\eta^2_p = .001$; individual-level treatment attributions, $F(1, 478) = 0.03$, $p = .867$, $\eta^2_p < .001$; structural-level causal attributions, $F(1, 478) = 1.09$, $p = .298$, $\eta^2_p = .002$; or structural-level treatment attributions, $F(1, 478) = 0.77$, $p = .379$, $\eta^2_p = .002$. H5a and H5b predicted interactions between localization in news reporting and responsibility framing. These interactions were also not statistically significant for individual-level causal attributions, $F(1, 478) = 1.59$, $p = .208$, $\eta^2_p = .003$; individual-level treatment attributions, $F(1, 478) = 3.09$, $p = .079$, $\eta^2_p = .006$; structural-level causal attributions, $F(1, 478) = 0.17$, $p = .679$, $\eta^2_p < .001$; or structural-level treatment attributions, $F(1, 478) = 0.54$, $p = .461$, $\eta^2_p = .001$.

Table 4

Summary of Hypotheses and Support Status

Hypothesis	Support Status
H1a: Participants exposed to structural-level responsibility framing are more likely to view mass shootings as primarily caused by structural-level factors, compared to those exposed to individual-level responsibility framing.	Unsupported
H1b: Participants exposed to structural-level framing are more likely to believe that mass shootings should primarily be addressed through structural-level solutions, compared to those exposed to individual-level framing.	Unsupported
H2a: Participants exposed to narrative news messages about the mass shooting issue are expected to show greater narrative engagement than those exposed to non-narrative messages on the same issue.	Fully supported
H2b: Participants exposed to narrative news messages about the mass shooting issue are more likely to experience a stronger discrete emotion of anger than those exposed to non-narrative messages about the same issue.	Unsupported
H2c: Participants exposed to narrative news messages about the mass shooting issue are more likely to experience a stronger discrete emotion of fear than those exposed to non-narrative messages about the same issue.	Fully supported
H2d: Participants exposed to narrative news messages about the mass shooting issue are more likely to experience a stronger discrete emotion of hopefulness than those exposed to non-narrative messages about the same issue.	Unsupported
H3a: Content structures and responsibility framing are expected to interact in their association with participants' tendency to view mass shootings as primarily caused by structural-level factors, such that this tendency will be lower for news messages that are either non-narrative or use individual-level responsibility framing, and highest for messages that are narrative and use structural-level responsibility framing.	Unsupported
H3b: Content structures and responsibility framing are expected to interact in their association with participants' tendency to believe that mass shootings should primarily be addressed through structural-level solutions, such that this tendency will be lower for news messages that are either non-narrative or use individual-level responsibility framing, and highest for messages that are narrative and use structural-level responsibility framing.	Unsupported
H3c: Content structures and responsibility framing are expected to interact in their association with participants' narrative engagement, such that narrative engagement will be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing.	Unsupported
H3d: Content structures and responsibility framing are expected to interact in their association with participants' discrete emotion of anger, such that anger will be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing.	Unsupported
H3e: Content structures and responsibility framing are expected to interact in their association with participants' discrete emotion of fear, such that fear will be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing.	Unsupported
H3f: Content structures and responsibility framing are expected to interact in their association with participants' discrete emotion of hopefulness, such that hopefulness will be lower for news messages that are either non-narrative or use structural-level responsibility framing, and highest for messages that are narrative and use individual-level responsibility framing.	Unsupported

Hypothesis	Support Status
H4a: Exposure to a higher level of localization in news reporting (i.e., community news perspective) about a U.S. mass shooting occurring outside participants' state of residence is expected to increase psychological proximity to the incident, compared to exposure to a lower level of localization in news reporting (i.e., national news perspective).	Unsupported
H4b: Greater psychological proximity to covered mass shooting violence is expected to be associated with increased fear of crime.	Fully supported
H4c: Exposure to a higher level of localization in news reporting (i.e., community news perspective) about a U.S. mass shooting occurring outside participants' state of residence is expected to increase psychological proximity to the incident, which in turn is expected to heighten fear of crime, compared to exposure to a lower level of localization in news reporting (i.e., national news perspective).	Unsupported
H4d: Greater psychological proximity to covered mass shooting violence is expected to be associated with increased civic engagement intentions.	Fully supported
H4e: Exposure to a higher level of localization in news reporting (i.e., community news perspective) about a U.S. mass shooting occurring outside participants' state of residence is expected to increase psychological proximity to the violence covered, which in turn is expected to heighten civic engagement intentions, compared to exposure to a lower level of localization in news reporting (i.e., national news perspective).	Unsupported
H5a: Localization in news reporting and responsibility framing are expected to interact in their association with participants' tendency to view mass shootings as primarily caused by structural-level factors, such that this tendency will be lower for news messages that use a higher level of localization in news reporting or individual-level responsibility framing, and highest for messages that use a lower level of localization in news reporting and structural-level responsibility framing.	Unsupported
H5b: Localization in news reporting and responsibility framing are expected to interact in their association with participants' tendency to believe that mass shootings should primarily be addressed through structural-level solutions, such that this tendency will be lower for news messages that use a higher level of localization in news reporting or individual-level responsibility framing, and highest for messages that use a lower level of localization in news reporting and structural-level responsibility framing.	Unsupported
H5c: Localization in news reporting and responsibility framing are expected to interact in their association with participants' tendency to perceive mass shooting violence as psychologically proximate, such that this tendency will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.	Partially supported
H5d: Localization in news reporting and responsibility framing are expected to interact in their association with participants' fear of crime, such that fear of crime will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.	Unsupported
H5e: Localization in news reporting and responsibility framing are expected to interact in their association with participants' civic engagement intentions, such that civic engagement intentions will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.	Partially supported
H6a: Localization in news reporting and content structures are expected to interact in their association with participants' tendency to perceive mass shooting violence as psychologically proximate, such that this tendency will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.	Unsupported
H6b: Localization in news reporting and content structures are expected to interact in their association with participants' fear of crime, such that fear of crime will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.	Unsupported
H6c: Localization in news reporting and content structures are expected to interact in their association with participants' civic engagement intentions, such that civic engagement intentions will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.	Unsupported

Hypothesis	Support Status
H6d: Localization in news reporting and content structures are expected to interact in their association with participants' narrative engagement, such that narrative engagement will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.	Unsupported
H6e: Localization in news reporting and content structures are expected to interact in their association with participants' discrete emotion of anger, such that anger will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.	Unsupported
H6f: Localization in news reporting and content structures are expected to interact in their association with participants' discrete emotion of fear, such that fear will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.	Unsupported
H6g: Localization in news reporting and content structures are expected to interact in their association with participants' discrete emotion of hopefulness, such that hopefulness will be lower for news messages that use a lower level of localization in news reporting or are non-narrative, and highest for messages that use a higher level of localization in news reporting and are narrative.	Unsupported
H6h: Localization in news reporting and content structures are expected to interact in their association with participants' tendency to view mass shootings as primarily caused by structural-level factors, such that this tendency will be lower for news messages that use a higher level of localization in news reporting or are non-narrative, and highest for messages that use a lower level of localization in news reporting and are narrative.	Unsupported
H6i: Localization in news reporting and content structures are expected to interact in their association with participants' tendency to believe that mass shootings should primarily be addressed through structural-level solutions, such that this tendency will be lower for news messages that use a higher level of localization in news reporting or are non-narrative, and highest for messages that use a lower level of localization in news reporting and are narrative.	Unsupported
H7a: Localization in news reporting and responsibility framing are expected to interact in their association with participants' narrative engagement, such that narrative engagement will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.	Partially supported
H7b: Localization in news reporting and responsibility framing are expected to interact in their association with participants' discrete emotion of anger, such that anger will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.	Unsupported
H7c: Localization in news reporting and responsibility framing are expected to interact in their association with participants' discrete emotion of fear, such that fear will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.	Unsupported
H7d: Localization in news reporting and responsibility framing are expected to interact in their association with participants' discrete emotion of hopefulness, such that hopefulness will be lower for news messages that use a lower level of localization in news reporting or structural-level responsibility framing, and highest for messages that use a higher level of localization in news reporting and individual-level responsibility framing.	Unsupported
H8a: Content structures and responsibility framing are expected to interact in their association with participants' tendency to perceive mass shooting violence as psychologically proximate, such that this tendency will be lower for news messages that are non-narrative or use a structural-level responsibility framing, and highest for messages that are narrative and use an individual-level responsibility framing.	Unsupported
H8b: Content structures and responsibility framing are expected to interact in their association with participants' fear of crime, such that fear of crime will be lower for news messages that are non-narrative or use a structural-level responsibility framing, and highest for messages that are narrative and use an individual-level responsibility framing.	Unsupported

Hypothesis	Support Status
H8c: Content structures and responsibility framing are expected to interact in their association with participants' civic engagement intentions, such that civic engagement intentions will be lower for news messages that are non-narrative or use a structural-level responsibility framing, and highest for messages that are narrative and use an individual-level responsibility framing.	Unsupported
H9a: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' tendency to view mass shootings as primarily caused by structural-level factors, such that this tendency will be lower for news messages that use an individual-level responsibility framing, are non-narrative, and use a higher level of localization in news reporting, and highest for messages that use a structural-level responsibility framing, are narrative, and use a lower level of localization in news reporting.	Unsupported
H9b: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' tendency to believe that mass shootings should primarily be addressed through structural-level solutions, such that this tendency will be lower for news messages that use an individual-level responsibility framing, are non-narrative, and use a higher level of localization in news reporting, and highest for messages that use a structural-level responsibility framing, are narrative, and use a lower level of localization in news reporting.	Unsupported
H9c: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' narrative engagement, such that narrative engagement will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.	Unsupported
H9d: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' discrete emotion of anger, such that anger will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.	Partially supported
H9e: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' discrete emotion of fear, such that fear will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.	Unsupported
H9f: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' discrete emotion of hopefulness, such that hopefulness will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.	Partially supported
H9g: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' tendency to perceive mass shooting violence as psychologically proximate, such that this tendency will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.	Unsupported
H9h: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' fear of crime, such that fear of crime will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.	Unsupported
H9i: Responsibility framing, content structures, and localization in news reporting are expected to interact in their association with participants' civic engagement intentions, such that civic engagement intentions will be lower for news messages that use a structural-level responsibility framing, are non-narrative, and use a lower level of localization in news reporting, and highest for messages that use an individual-level responsibility framing, are narrative, and use a higher level of localization in news reporting.	Unsupported

H6h and H6i predicted interactions between localization in news reporting and content structures. These interactions were not statistically significant for individual-level causal attributions, $F(1, 478) = 1.67$, $p = .197$, $\eta^2_p = .003$; individual-level treatment attributions, $F(1, 478) = 0.83$, $p = .364$, $\eta^2_p = .002$; structural-level causal attributions, $F(1, 478) = 1.21$, $p = .272$, $\eta^2_p = .003$; or structural-level treatment attributions, $F(1, 478) = 1.25$, $p = .264$, $\eta^2_p = .003$. Finally, H9a and H9b predicted three-way interactions among responsibility framing, content structures, and localization in news reporting. These three-way interactions were not statistically significant for individual-level causal attributions, $F(1, 478) = 0.01$, $p = .919$, $\eta^2_p < .001$; individual-level treatment attributions, $F(1, 478) = 0.05$, $p = .816$, $\eta^2_p < .001$; structural-level causal attributions, $F(1, 478) = 0.02$, $p = .901$, $\eta^2_p < .001$; or structural-level treatment attributions, $F(1, 478) < 0.01$, $p = .991$, $\eta^2_p < .001$. Overall, the relevant two-way and three-way between-subjects interactions were not statistically significant for either causal responsibility attributions or treatment responsibility attributions.

Additional responsibility attribution outcomes were examined for mental-illness, high-risk-access causal and treatment responsibility attributions, respectively. For mental-illness causal responsibility attributions, the main effect of message variance was not statistically significant, but the interaction among message variance, responsibility framing, content structures, and localization in news reporting was statistically significant, $F(2, 956) = 4.88$, $p = .008$, $\eta^2_p = .010$. Follow-up analyses showed that the interaction among responsibility framing, content structures, and localization in news reporting was statistically significant for the grocery message, $F(1, 478) = 5.84$, $p = .016$, but not for the high school message, $F(1, 478) = 0.17$, $p = .682$, or the music festival message, $F(1, 478) = 0.26$, $p = .607$. However, Bonferroni-adjusted pairwise comparisons among the eight combined conditions formed by responsibility framing,

content structures, and localization in news reporting for the grocery message showed that no pairwise differences reached statistical significance. Because these comparisons involved 28 pairwise tests, many adjusted *p*-values were displayed by SPSS as $p = 1.000$; these values reflect SPSS's upper-bound display after Bonferroni adjustment rather than unadjusted *p*-values of exactly 1.000.

For the individual-level responsibility framing, narrative content structure, community news perspective condition, comparisons were not statistically significant with the structural-level responsibility framing, narrative content structure, community news perspective condition, mean difference = –0.11, $SE = 0.24$, $p = 1.000$; individual-level responsibility framing, non-narrative content structure, community news perspective condition, mean difference = –0.11, $SE = 0.24$, $p = 1.000$; structural-level responsibility framing, non-narrative content structure, community news perspective condition, mean difference = 0.20, $SE = 0.24$, $p = 1.000$; individual-level responsibility framing, narrative content structure, national news perspective condition, mean difference = –0.46, $SE = 0.24$, $p = 1.000$; structural-level responsibility framing, narrative content structure, national news perspective condition, mean difference = 0.08, $SE = 0.24$, $p = 1.000$; individual-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.09, $SE = 0.24$, $p = 1.000$; and structural-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.29, $SE = 0.24$, $p = 1.000$.

For the structural-level responsibility framing, narrative content structure, community news perspective condition, comparisons were not statistically significant with the individual-level responsibility framing, non-narrative content structure, community news perspective condition, mean difference = 0.00, $SE = 0.24$, $p = 1.000$; structural-level responsibility framing,

non-narrative content structure, community news perspective condition, mean difference = 0.31, *SE* = 0.24, *p* = 1.000; individual-level responsibility framing, narrative content structure, national news perspective condition, mean difference = –0.35, *SE* = 0.24, *p* = 1.000; structural-level responsibility framing, narrative content structure, national news perspective condition, mean difference = 0.19, *SE* = 0.24, *p* = 1.000; individual-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = 0.02, *SE* = 0.24, *p* = 1.000; and structural-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.18, *SE* = 0.24, *p* = 1.000.

For the individual-level responsibility framing, non-narrative content structure, community news perspective condition, comparisons were not statistically significant with the structural-level responsibility framing, non-narrative content structure, community news perspective condition, mean difference = 0.31, *SE* = 0.24, *p* = 1.000; individual-level responsibility framing, narrative content structure, national news perspective condition, mean difference = –0.35, *SE* = 0.24, *p* = 1.000; structural-level responsibility framing, narrative content structure, national news perspective condition, mean difference = 0.19, *SE* = 0.24, *p* = 1.000; individual-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = 0.02, *SE* = 0.24, *p* = 1.000; and structural-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.18, *SE* = 0.24, *p* = 1.000.

For the structural-level responsibility framing, non-narrative content structure, community news perspective condition, comparisons were not statistically significant with the individual-level responsibility framing, narrative content structure, national news perspective condition, mean difference = –0.66, *SE* = 0.24, *p* = .165; structural-level responsibility framing,

narrative content structure, national news perspective condition, mean difference = –0.13, *SE* = 0.24, *p* = 1.000; individual-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.30, *SE* = 0.24, *p* = 1.000; and structural-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.50, *SE* = 0.25, *p* = 1.000.

For the individual-level responsibility framing, narrative content structure, national news perspective condition, comparisons were not statistically significant with the structural-level responsibility framing, narrative content structure, national news perspective condition, mean difference = 0.54, *SE* = 0.24, *p* = .730; individual-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = 0.37, *SE* = 0.24, *p* = 1.000; and structural-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = 0.17, *SE* = 0.24, *p* = 1.000.

For the structural-level responsibility framing, narrative content structure, national news perspective condition, comparisons were not statistically significant with the individual-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.17, *SE* = 0.24, *p* = 1.000; and structural-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.37, *SE* = 0.25, *p* = 1.000. Finally, the individual-level responsibility framing, non-narrative content structure, national news perspective condition did not significantly differ from the structural-level responsibility framing, non-narrative content structure, national news perspective condition, mean difference = –0.20, *SE* = 0.25, *p* = 1.000. Therefore, although the grocery-message three-way interaction was statistically significant, the Bonferroni-adjusted pairwise comparisons did not show statistically significant differences among the eight conditions.

Table 5

Mixed-Design Repeated-Measures ANOVA Results

Outcome	Effect	*df*	*F*	*p*	η^2_p
Individual-level causal responsibility attributions	Message variance	2, 956	0.74	.478	.002
	Message variance × responsibility framing	2, 956	0.35	.705	.001
	Message variance × content structures	2, 956	0.74	.478	.002
	Message variance × localization in news reporting	2, 956	0.01	.993	.000
	Message variance × responsibility framing × content structures	2, 956	1.58	.206	.003
	Message variance × responsibility framing × localization in news reporting	2, 956	1.02	.363	.002
	Message variance × content structures × localization in news reporting	2, 956	1.09	.336	.002
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.86	.421	.002
	Responsibility framing	**1, 478**	**9.25**	**.002**	**.019**
	Content structures	1, 478	0.02	.889	.000
	Localization in news reporting	1, 478	0.11	.742	.000
	Responsibility framing × content structures	1, 478	0.48	.489	.001
	Responsibility framing × localization in news reporting	1, 478	1.59	.208	.003
	Content structures × localization in news reporting	1, 478	1.67	.197	.003
	Responsibility framing × content structures × localization in news reporting	1, 478	0.01	.919	.000
Structural-level causal responsibility attributions	Message variance	2, 956	1.27	.281	.003
	Message variance × responsibility framing	2, 956	1.01	.364	.002
	Message variance × content structures	2, 956	1.73	.178	.004
	Message variance × localization in news reporting	2, 956	1.05	.349	.002
	Message variance × responsibility framing × content structures	2, 956	0.94	.392	.002
	Message variance × responsibility framing × localization in news reporting	2, 956	0.48	.621	.001
	Message variance × content structures × localization in news reporting	2, 956	0.95	.388	.002

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.11	.896	.000
	Responsibility framing	1, 478	0.38	.538	.001
	Content structures	1, 478	3.47	.063	.007
	Localization in news reporting	1, 478	< 0.01	.981	.000
	Responsibility framing × content structures	1, 478	1.09	.298	.002
	Responsibility framing × localization in news reporting	1, 478	0.17	.679	.000
	Content structures × localization in news reporting	1, 478	1.21	.272	.003
	Responsibility framing × content structures × localization in news reporting	1, 478	0.02	.901	.000
Mental-illness causal responsibility attributions	Message variance	2, 956	0.22	.800	.000
	Message variance × responsibility framing	2, 956	0.92	.400	.002
	Message variance × content structures	2, 956	0.58	.558	.001
	Message variance × localization in news reporting	2, 956	1.67	.188	.003
	Message variance × responsibility framing × content structures	2, 956	0.87	.419	.002
	Message variance × responsibility framing × localization in news reporting	2, 956	1.85	.158	.004
	Message variance × content structures × localization in news reporting	2, 956	0.19	.827	.000
	Message variance × responsibility framing × content structures × localization in news reporting	**2, 956**	**4.88**	**.008**	**.010**
	Responsibility framing	1, 478	2.72	.100	.006
	Content structures	1, 478	0.01	.910	.000
	Localization in news reporting	1, 478	2.44	.119	.005
	Responsibility framing × content structures	1, 478	0.81	.368	.002
	Responsibility framing × localization in news reporting	1, 478	0.72	.397	.001
	Content structures × localization in news reporting	1, 478	0.25	.620	.001
	Responsibility framing × content structures × localization in news reporting	1, 478	1.49	.222	.003
High-risk-access causal responsibility attributions	Message variance	1.97, 942.87	1.77	.171	.004
	Message variance × responsibility framing	1.97, 942.87	0.67	.510	.001
	Message variance × content structures	1.97, 942.87	0.55	.573	.001
	Message variance × localization in news reporting	1.97, 942.87	0.47	.625	.001

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Message variance × responsibility framing × content structures	1.97, 942.87	0.41	.664	.001
	Message variance × responsibility framing × localization in news reporting	1.97, 942.87	0.61	.542	.001
	Message variance × content structures × localization in news reporting	1.97, 942.87	0.37	.689	.001
	Message variance × responsibility framing × content structures × localization in news reporting	1.97, 942.87	0.05	.947	.000
	Responsibility framing	1, 478	0.01	.924	.000
	Content structures	1, 478	0.27	.604	.001
	Localization in news reporting	1, 478	1.38	.241	.003
	Responsibility framing × content structures	1, 478	0.66	.416	.001
	Responsibility framing × localization in news reporting	1, 478	1.23	.269	.003
	Content structures × localization in news reporting	1, 478	0.42	.517	.001
	Responsibility framing × content structures × localization in news reporting	1, 478	< 0.01	.980	.000
Individual-level treatment responsibility attributions	Message variance	1.96, 935.04	0.67	.507	.001
	Message variance × responsibility framing	1.96, 935.04	0.10	.904	.000
	Message variance × content structures	1.96, 935.04	0.46	.628	.001
	Message variance × localization in news reporting	1.96, 935.04	0.63	.531	.001
	Message variance × responsibility framing × content structures	1.96, 935.04	0.28	.750	.001
	Message variance × responsibility framing × localization in news reporting	1.96, 935.04	0.43	.644	.001
	Message variance × content structures × localization in news reporting	1.96, 935.04	1.60	.202	.003
	Message variance × responsibility framing × content structures × localization in news reporting	1.96, 935.04	0.52	.590	.001
	Responsibility framing	**1, 478**	**7.83**	**.005**	**.016**
	Content structures	1, 478	0.39	.532	.001
	Localization in news reporting	1, 478	0.09	.766	.000
	Responsibility framing × content structures	1, 478	0.03	.867	.000
	Responsibility framing × localization in news reporting	1, 478	3.09	.079	.006
	Content structures × localization in news reporting	1, 478	0.83	.364	.002

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Responsibility framing × content structures × localization in news reporting	1, 478	0.05	.816	.000
Structural-level treatment responsibility attributions	Message variance	2, 956	1.12	.325	.002
	Message variance × responsibility framing	2, 956	1.53	.217	.003
	Message variance × content structures	2, 956	0.63	.531	.001
	Message variance × localization in news reporting	2, 956	0.10	.905	.000
	Message variance × responsibility framing × content structures	2, 956	1.23	.292	.003
	Message variance × responsibility framing × localization in news reporting	2, 956	1.34	.263	.003
	Message variance × content structures × localization in news reporting	2, 956	0.23	.798	.000
	Message variance × responsibility framing × content structures × localization in news reporting	**2, 956**	**3.59**	**.028**	**.007**
	Responsibility framing	1, 478	0.26	.614	.001
	Content structures	1, 478	2.73	.099	.006
	Localization in news reporting	1, 478	0.04	.844	.000
	Responsibility framing × content structures	1, 478	0.77	.379	.002
	Responsibility framing × localization in news reporting	1, 478	0.54	.461	.001
	Content structures × localization in news reporting	1, 478	1.25	.264	.003
	Responsibility framing × content structures × localization in news reporting	1, 478	< 0.01	.991	.000
Mental-illness treatment responsibility attributions	Message variance	2, 956	2.03	.132	.004
	Message variance × responsibility framing	**2, 956**	**3.02**	**.049**	**.006**
	Message variance × content structures	2, 956	0.30	.738	.001
	Message variance × localization in news reporting	2, 956	0.13	.877	.000
	Message variance × responsibility framing × content structures	2, 956	0.24	.784	.001
	Message variance × responsibility framing × localization in news reporting	2, 956	0.06	.937	.000
	Message variance × content structures × localization in news reporting	2, 956	1.36	.257	.003
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.32	.729	.001

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Responsibility framing	1, 478	0.91	.339	.002
	Content structures	1, 478	1.10	.295	.002
	Localization in news reporting	1, 478	2.79	.095	.006
	Responsibility framing × content structures	1, 478	0.02	.877	.000
	Responsibility framing × localization in news reporting	1, 478	0.06	.802	.000
	Content structures × localization in news reporting	1, 478	0.53	.466	.001
	Responsibility framing × content structures × localization in news reporting	1, 478	0.01	.905	.000
High-risk-access treatment responsibility attributions	Message variance	2, 956	0.63	.531	.001
	Message variance × responsibility framing	2, 956	2.10	.123	.004
	Message variance × content structures	2, 956	0.23	.794	.000
	Message variance × localization in news reporting	2, 956	0.30	.742	.001
	Message variance × responsibility framing × content structures	2, 956	1.79	.168	.004
	Message variance × responsibility framing × localization in news reporting	2, 956	0.62	.538	.001
	Message variance × content structures × localization in news reporting	2, 956	0.30	.739	.001
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.72	.487	.002
	Responsibility framing	1, 478	0.21	.648	.000
	Content structures	1, 478	0.71	.398	.001
	Localization in news reporting	1, 478	0.77	.379	.002
	Responsibility framing × content structures	1, 478	0.62	.433	.001
	Responsibility framing × localization in news reporting	1, 478	0.11	.739	.000
	Content structures × localization in news reporting	1, 478	2.40	.122	.005
	Responsibility framing × content structures × localization in news reporting	1, 478	< 0.01	.993	.000
Narrative engagement	**Message variance**	**2, 956**	**5.00**	**.007**	**.010**
	Message variance × responsibility framing	2, 956	2.15	.117	.004
	Message variance × content structures	2, 956	1.30	.273	.003
	Message variance × localization in news reporting	2, 956	1.55	.212	.003
	Message variance × responsibility framing × content structures	2, 956	0.03	.973	.000

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Message variance × responsibility framing × localization in news reporting	2, 956	0.67	.511	.001
	Message variance × content structures × localization in news reporting	2, 956	0.86	.422	.002
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.84	.433	.002
	Responsibility framing	1, 478	1.50	.222	.003
	Content structures	**1, 478**	**4.18**	**.042**	**.009**
	Localization in news reporting	1, 478	< 0.01	.997	.000
	Responsibility framing × content structures	1, 478	0.98	.324	.002
	Responsibility framing × localization in news reporting	**1, 478**	**5.26**	**.022**	**.011**
	Content structures × localization in news reporting	1, 478	2.37	.124	.005
	Responsibility framing × content structures × localization in news reporting	1, 478	0.02	.883	.000
Anger	**Message variance**	**1.94, 929.52**	**4.63**	**.011**	**.010**
	Message variance × responsibility framing	1.94, 929.52	0.13	.876	.000
	Message variance × content structures	1.94, 929.52	0.80	.446	.002
	Message variance × localization in news reporting	1.94, 929.52	0.18	.826	.000
	Message variance × responsibility framing × content structures	1.94, 929.52	1.49	.226	.003
	Message variance × responsibility framing × localization in news reporting	1.94, 929.52	1.76	.173	.004
	Message variance × content structures × localization in news reporting	1.94, 929.52	2.73	.067	.006
	Message variance × responsibility framing × content structures × localization in news reporting	1.94, 929.52	0.25	.770	.001
	Responsibility framing	1, 478	0.48	.489	.001
	Content structures	1, 478	2.22	.136	.005
	Localization in news reporting	**1, 478**	**4.14**	**.043**	**.009**
	Responsibility framing × content structures	1, 478	0.52	.472	.001
	Responsibility framing × localization in news reporting	1, 478	0.43	.512	.001
	Content structures × localization in news reporting	1, 478	0.03	.867	.000
	Responsibility framing × content structures × localization in news reporting	**1, 478**	**5.93**	**.015**	**.012**
Fear	Message variance	2, 956	0.25	.782	.001
	Message variance × responsibility framing	**2, 956**	**3.19**	**.042**	**.007**

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Message variance × content structures	2, 956	1.49	.226	.003
	Message variance × localization in news reporting	2, 956	2.80	.062	.006
	Message variance × responsibility framing × content structures	2, 956	0.61	.544	.001
	Message variance × responsibility framing × localization in news reporting	2, 956	0.05	.954	.000
	Message variance × content structures × localization in news reporting	2, 956	0.88	.416	.002
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.31	.730	.001
	Responsibility framing	1, 478	0.02	.891	.000
	Content structures	**1, 478**	**11.53**	**< .001**	**.024**
	Localization in news reporting	1, 478	0.40	.528	.001
	Responsibility framing × content structures	1, 478	0.07	.792	.000
	Responsibility framing × localization in news reporting	1, 478	0.59	.444	.001
	Content structures × localization in news reporting	1, 478	0.01	.938	.000
	Responsibility framing × content structures × localization in news reporting	1, 478	1.36	.244	.003
Hopefulness	Message variance	1.97, 943.02	1.69	.185	.004
	Message variance × responsibility framing	1.97, 943.02	2.31	.100	.005
	Message variance × content structures	1.97, 943.02	1.45	.236	.003
	Message variance × localization in news reporting	**1.97, 943.02**	**3.44**	**.033**	**.007**
	Message variance × responsibility framing × content structures	1.97, 943.02	0.17	.839	.000
	Message variance × responsibility framing × localization in news reporting	1.97, 943.02	0.32	.726	.001
	Message variance × content structures × localization in news reporting	**1.97, 943.02**	**3.44**	**.033**	**.007**
	Message variance × responsibility framing × content structures × localization in news reporting	1.97, 943.02	1.41	.246	.003
	Responsibility framing	1, 478	0.36	.551	.001
	Content structures	1, 478	0.29	.590	.001
	Localization in news reporting	1, 478	0.50	.479	.001
	Responsibility framing × content structures	1, 478	0.01	.937	.000
	Responsibility framing × localization in news reporting	1, 478	0.97	.324	.002
	Content structures × localization in news reporting	1, 478	0.40	.529	.001

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Responsibility framing × content structures × localization in news reporting	**1, 478**	**4.97**	**.026**	**.010**
Psychological proximity	**Message variance**	**2, 956**	**3.85**	**.022**	**.008**
	Message variance × responsibility framing	2, 956	0.41	.661	.001
	Message variance × content structures	2, 956	0.05	.950	.000
	Message variance × localization in news reporting	2, 956	0.55	.576	.001
	Message variance × responsibility framing × content structures	2, 956	1.41	.244	.003
	Message variance × responsibility framing × localization in news reporting	2, 956	2.54	.079	.005
	Message variance × content structures × localization in news reporting	2, 956	2.34	.096	.005
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	1.16	.315	.002
	Responsibility framing	1, 478	0.40	.529	.001
	Content structures	1, 478	0.41	.521	.001
	Localization in news reporting	1, 478	1.79	.182	.004
	Responsibility framing × content structures	1, 478	3.27	.071	.007
	Responsibility framing × localization in news reporting	**1, 478**	**11.68**	**< .001**	**.024**
	Content structures × localization in news reporting	1, 478	2.53	.113	.005
	Responsibility framing × content structures × localization in news reporting	1, 478	< 0.01	.952	.000
Fear of crime	Message variance	2, 956	0.85	.427	.002
	Message variance × responsibility framing	2, 956	1.08	.341	.002
	Message variance × content structures	**2, 956**	**3.41**	**.033**	**.007**
	Message variance × localization in news reporting	2, 956	0.97	.378	.002
	Message variance × responsibility framing × content structures	2, 956	0.73	.481	.002
	Message variance × responsibility framing × localization in news reporting	2, 956	0.75	.472	.002
	Message variance × content structures × localization in news reporting	2, 956	0.47	.626	.001
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.48	.616	.001
	Responsibility framing	1, 478	0.80	.371	.002
	Content structures	**1, 478**	**9.62**	**.002**	**.020**

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Localization in news reporting	1, 478	1.94	.164	.004
	Responsibility framing × content structures	1, 478	< 0.01	.946	.000
	Responsibility framing × localization in news reporting	1, 478	1.58	.210	.003
	Content structures × localization in news reporting	1, 478	0.05	.824	.000
	Responsibility framing × content structures × localization in news reporting	1, 478	1.91	.167	.004
Civic engagement intentions	Message variance	2, 956	0.56	.570	.001
	Message variance × responsibility framing	2, 956	1.55	.213	.003
	Message variance × content structures	2, 956	0.44	.646	.001
	Message variance × localization in news reporting	2, 956	0.09	.913	.000
	Message variance × responsibility framing × content structures	2, 956	0.64	.526	.001
	Message variance × responsibility framing × localization in news reporting	2, 956	1.69	.184	.004
	Message variance × content structures × localization in news reporting	2, 956	1.16	.313	.002
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	1.15	.316	.002
	Responsibility framing	1, 478	0.16	.685	.000
	Content structures	1, 478	2.67	.103	.006
	Localization in news reporting	1, 478	0.02	.900	.000
	Responsibility framing × content structures	1, 478	1.88	.170	.004
	Responsibility framing × localization in news reporting	**1, 478**	**5.43**	**.020**	**.011**
	Content structures × localization in news reporting	1, 478	1.03	.311	.002
	Responsibility framing × content structures × localization in news reporting	1, 478	0.01	.924	.000
Perceived news credibility	Message variance	2, 956	0.24	.785	.001
	Message variance × responsibility framing	2, 956	0.55	.579	.001
	Message variance × content structures	2, 956	0.04	.965	.000
	Message variance × localization in news reporting	2, 956	0.02	.982	.000
	Message variance × responsibility framing × content structures	**2, 956**	**3.29**	**.038**	**.007**
	Message variance × responsibility framing × localization in news reporting	2, 956	0.46	.629	.001
	Message variance × content structures × localization in news reporting	2, 956	1.45	.236	.003

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.84	.433	.002
	Responsibility framing	1, 478	0.60	.440	.001
	Content structures	1, 478	0.25	.615	.001
	Localization in news reporting	1, 478	0.09	.758	.000
	Responsibility framing × content structures	1, 478	1.08	.299	.002
	Responsibility framing × localization in news reporting	**1, 478**	**4.25**	**.040**	**.009**
	Content structures × localization in news reporting	1, 478	0.07	.796	.000
	Responsibility framing × content structures × localization in news reporting	1, 478	0.02	.883	.000
Perceived newsworthiness	Message variance	2, 956	2.68	.069	.006
	Message variance × responsibility framing	2, 956	0.76	.467	.002
	Message variance × content structures	2, 956	1.27	.282	.003
	Message variance × localization in news reporting	2, 956	1.02	.361	.002
	Message variance × responsibility framing × content structures	2, 956	1.13	.323	.002
	Message variance × responsibility framing × localization in news reporting	2, 956	0.54	.582	.001
	Message variance × content structures × localization in news reporting	2, 956	1.11	.330	.002
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	0.06	.946	.000
	Responsibility framing	1, 478	0.15	.696	.000
	Content structures	1, 478	0.38	.540	.001
	Localization in news reporting	1, 478	0.75	.388	.002
	Responsibility framing × content structures	**1, 478**	**4.43**	**.036**	**.009**
	Responsibility framing × localization in news reporting	**1, 478**	**8.72**	**.003**	**.018**
	Content structures × localization in news reporting	1, 478	1.39	.239	.003
	Responsibility framing × content structures × localization in news reporting	1, 478	2.63	.106	.005
Perceived news quality	Message variance	2, 956	0.90	.408	.002
	Message variance × responsibility framing	2, 956	0.15	.863	.000
	Message variance × content structures	2, 956	2.14	.118	.004
	Message variance × localization in news reporting	2, 956	1.06	.345	.002
	Message variance × responsibility framing × content structures	2, 956	0.34	.715	.001

Outcome	Effect	*df*	*F*	*p*	η^2_p
	Message variance × responsibility framing × localization in news reporting	2, 956	0.61	.542	.001
	Message variance × content structures × localization in news reporting	2, 956	< 0.01	.999	.000
	Message variance × responsibility framing × content structures × localization in news reporting	2, 956	1.26	.284	.003
	Responsibility framing	1, 478	< 0.01	.986	.000
	Content structures	1, 478	0.10	.756	.000
	Localization in news reporting	1, 478	1.28	.259	.003
	Responsibility framing × content structures	**1, 478**	**3.91**	**.048**	**.008**
	Responsibility framing × localization in news reporting	**1, 478**	**4.40**	**.037**	**.009**
	Content structures × localization in news reporting	1, 478	0.33	.568	.001
	Responsibility framing × content structures × localization in news reporting	1, 478	0.92	.339	.002

Note. df values are reported as numerator *df*, denominator *df*. For within-subjects effects involving message variance, Greenhouse-Geisser-corrected results are reported when Mauchly's test was significant; otherwise, sphericity-assumed results are reported. Responsibility framing, content structures, and localization in news reporting were between-subjects factors, and message variance was the within-subjects factor. η^2_p = partial eta squared.

Table 6

Omnibus and Significant Follow-Up Results for Mixed-Design Repeated-Measures ANOVAs

Outcome	Omnibus effect	*df*	*F*	*p*	Significant follow-up comparison	*M*1 (*SE*)	*M*2 (*SE*)	Mean diff.	*SE* diff.	Adj. *p*
Individual-level causal responsibility attributions	Responsibility framing	1, 478	9.25	.002	Individual-level framing vs. structural-level framing	4.01 (0.09)	3.61 (0.09)	0.40	0.13	.002
Individual-level treatment responsibility attributions	Responsibility framing	1, 478	7.83	.005	Individual-level framing vs. structural-level framing	4.23 (0.09)	3.85 (0.09)	0.37	0.13	.005

Outcome	Omnibus effect	*df*	*F*	*p*	Significant follow-up comparison	*M*1 (*SE*)	*M*2 (*SE*)	Mean diff.	*SE* diff.	Adj. *p*
Structural-level treatment responsibility attributions	Message variance × Responsibility framing × Content structures × Localization in news reporting	2, 956	3.59	.028	—	—	—	—	—	—
Mental-illness causal responsibility attributions	Message variance × Responsibility framing × Content structures × Localization in news reporting	2, 956	4.88	.008	—	—	—	—	—	—
Mental-illness treatment responsibility attributions	Message variance × Responsibility framing	2, 956	3.02	.049	—	—	—	—	—	—
Narrative engagement	Message variance	2, 956	5.00	.007	High school vs. music festival	5.36 (0.04)	5.29 (0.04)	0.07	0.02	.004
Narrative engagement	Content structures	1, 478	4.18	.042	Narrative vs. non-narrative	5.40 (0.05)	5.25 (0.05)	0.15	0.07	.042
Narrative engagement	Responsibility framing × Localization in news reporting	1, 478	5.26	.022	—	—	—	—	—	—
Anger	Message variance	1.95, 929.52	4.63	.011	High school vs. grocery	3.79 (0.08)	3.68 (0.08)	0.11	0.04	.032
Anger	Message variance	1.95, 929.52	4.63	.011	High school vs. music festival	3.79 (0.08)	3.66 (0.08)	0.14	0.05	.014
Anger	Localization in news reporting	1, 478	4.14	.043	National news perspective vs. community news perspective	3.87 (0.11)	3.55 (0.11)	0.32	0.16	.043
Anger	Responsibility framing × Content structures × Localization in news reporting	1, 478	5.93	.015	—	—	—	—	—	—
Fear	Message variance × Responsibility framing	2, 956	3.19	.042	—	—	—	—	—	—
Fear	Content structures	1, 478	11.54	< .001	Narrative vs. non-narrative	3.96 (0.12)	3.38 (0.12)	0.58	0.17	< .001

Outcome	Omnibus effect	*df*	*F*	*p*	Significant follow-up comparison	*M*1 (*SE*)	*M*2 (*SE*)	Mean diff.	*SE* diff.	Adj. *p*
Hopefulness	Message variance × Localization in news reporting	1.97, 943.02	3.44	.033	—	—	—	—	—	—
Hopefulness	Message variance × Content structures × Localization in news reporting	1.97, 943.02	3.44	.033	—	—	—	—	—	—
Hopefulness	Responsibility framing × Content structures × Localization in news reporting	1, 478	4.97	.026	—	—	—	—	—	—
Psychological proximity	Message variance	2, 956	3.85	.022	Grocery vs. music festival	5.90 (0.04)	5.83 (0.05)	0.07	0.02	.013
Psychological proximity	Responsibility framing × Localization in news reporting	1, 478	11.69	< .001	Structural framing + national news perspective vs. structural framing + community news perspective	6.09 (0.08)	5.70 (0.08)	0.39	0.12	.006
Psychological proximity	Responsibility framing × Localization in news reporting	1, 478	11.69	< .001	Structural framing + national news perspective vs. individual framing + national news perspective	6.09 (0.08)	5.76 (0.08)	0.33	0.12	.029
Fear of crime	Content structures	1, 478	9.62	.002	Narrative vs. non-narrative	4.79 (0.10)	4.35 (0.10)	0.44	0.14	.002
Fear of crime	Message variance × Content structures	2, 956	3.41	.033	Grocery: narrative vs. non-narrative	4.82 (0.11)	4.37 (0.11)	0.45	0.15	.003
Fear of crime	Message variance × Content structures	2, 956	3.41	.033	High school: narrative vs. non-narrative	4.81 (0.10)	4.28 (0.10)	0.53	0.15	< .001
Fear of crime	Message variance × Content structures	2, 956	3.41	.033	Music festival: narrative vs. non-narrative	4.73 (0.10)	4.40 (0.11)	0.34	0.15	.024
Civic engagement intentions	Responsibility framing × Localization in news reporting	1, 478	5.43	.020	—	—	—	—	—	—
Perceived news credibility	Message variance × Responsibility framing × Content structures	2, 956	3.29	.038	—	—	—	—	—	—

Outcome	Omnibus effect	*df*	*F*	*p*	Significant follow-up comparison	*M*1 (*SE*)	*M*2 (*SE*)	Mean diff.	*SE* diff.	Adj. *p*
Perceived news credibility	Responsibility framing × Localization in news reporting	1, 478	4.25	.040	—	—	—	—	—	—
Perceived newsworthiness	Responsibility framing × Content structures	1, 478	4.43	.036	—	—	—	—	—	—
Perceived newsworthiness	Responsibility framing × Localization in news reporting	1, 478	8.72	.003	Structural framing + national news perspective vs. structural framing + community news perspective	5.98 (0.08)	5.69 (0.08)	0.29	0.11	.046
Perceived news quality	Responsibility framing × Content structures	1, 478	3.91	.048	—	—	—	—	—	—
Perceived news quality	Responsibility framing × Localization in news reporting	1, 478	4.40	.037	—	—	—	—	—	—

Note. Only statistically significant omnibus effects are shown. Follow-up columns report only statistically significant Bonferroni-adjusted pairwise comparisons. Nonsignificant pairwise comparisons are not presented because they did not indicate statistically significant differences among the compared conditions. When no pairwise comparison reached statistical significance, dashes are shown in the follow-up columns. For significant interactions among between-subject variables and interactions involving message variance and at least two between-subject variables, follow-up analyses used pairwise comparisons of the full set of combined conditions. *M* = estimated marginal mean; *SE* = standard error; Mean diff. = mean difference; *SE* diff. = standard error of the mean difference; Adj. *p* = Bonferroni-adjusted *p* value for the pairwise comparison.

For mental-illness treatment responsibility attributions, the main effect of message variance was not statistically significant, but the interaction between message variance and responsibility framing was statistically significant, $F(2, 956) = 3.02$, $p = .049$, $\eta^2_p = .006$. However, the responsibility framing effect was not statistically significant for the grocery message, $F(1, 478) = 0.03$, $p = .874$; high school message, $F(1, 478) = 0.27$, $p = .606$; or music festival message, $F(1, 478) = 3.39$, $p = .066$. Thus, no message-specific responsibility framing effect reached the conventional significance threshold. In addition, for high-risk-access causal responsibility attributions and high-risk-access treatment responsibility attributions, the main effect of message variance, interactions involving message variance, and all between-subjects effects were not statistically significant.

Content Structures, Narrative Engagement, and Discrete Emotions. The second hypothesis family examined whether narrative messages would increase narrative engagement and discrete emotions (i.e., anger, fear, and hopefulness). H2a predicted that narrative mass shooting news messages would be associated with greater narrative engagement than non-narrative messages. This hypothesis was supported. The main effect of content structures on narrative engagement was statistically significant, $F(1, 478) = 4.18$, $p = .042$, $\eta^2_p = .009$. Participants in the narrative condition ($M = 5.40$, $SE = 0.05$) reported higher narrative engagement than participants in the non-narrative condition ($M = 5.25$, $SE = 0.05$), mean difference = 0.15, $SE = 0.07$, $p = .042$.

Narrative engagement also differed across message variants. The main effect of message variance was statistically significant, $F(2, 956) = 5.00$, $p = .007$, $\eta^2_p = .010$. Bonferroni-adjusted pairwise comparisons showed that narrative engagement was significantly higher for the high school message ($M = 5.36$, $SE = 0.04$) than for the music festival message ($M = 5.29$, $SE = 0.04$),

mean difference = 0.07, *SE* = 0.02, *p* = .004. The grocery message (*M* = 5.33, *SE* = 0.04) did not differ significantly from either the high school message, mean difference = –0.03, *p* = .311, or the music festival message, mean difference = 0.03, *p* = .393. None of the interactions involving message variance were statistically significant. Specifically, the interaction between message variance and responsibility framing was not statistically significant, $F(2, 956) = 2.15$, $p = .117$, $\eta^2_p = .004$. The interaction between message variance and content structures was not statistically significant, $F(2, 956) = 1.30$, $p = .273$, $\eta^2_p = .003$.

The interaction between message variance and localization in news reporting was not statistically significant, $F(2, 956) = 1.55$, $p = .212$, $\eta^2_p = .003$. The interaction among message variance, responsibility framing, and content structures was not statistically significant, $F(2, 956) = 0.03$, $p = .973$, $\eta^2_p < .001$. The interaction among message variance, responsibility framing, and localization in news reporting was not statistically significant, $F(2, 956) = 0.67$, $p = .511$, $\eta^2_p = .001$. The interaction among message variance, content structures, and localization in news reporting was not statistically significant, $F(2, 956) = 0.86$, $p = .422$, $\eta^2_p = .002$. Finally, the interaction among message variance, responsibility framing, content structures, and localization in news reporting was not statistically significant, $F(2, 956) = 0.84$, $p = .433$, $\eta^2_p = .002$. These results suggest that the effects of responsibility framing, content structures, and localization in news reporting on narrative engagement did not vary significantly across the three message topics.

H2b, H2c, and H2d predicted that narrative messages would be associated with greater anger, fear, and hopefulness, respectively, than non-narrative messages. These predictions were supported only for fear. The main effect of content structures on fear was statistically significant, $F(1, 478) = 11.54$, $p < .001$, $\eta^2_p = .024$. Participants in the narrative condition (*M* = 3.96, *SE* =

0.12) reported higher fear than participants in the non-narrative condition (M = 3.38, SE = 0.12), mean difference = 0.58, SE = 0.17, $p < .001$. In contrast, the main effects of content structures on anger and hopefulness were not statistically significant. Thus, H2c was supported, whereas H2b and H2d were not supported.

In addition to the between-subjects effect of content structures, fear also showed a message-variance-related interaction. Although the main effect of message variance was not statistically significant, the interaction between message variance and responsibility framing was statistically significant, $F(2, 956) = 3.19$, $p = .042$, $\eta^2_p = .007$, indicating that the responsibility framing effect differed across message variants. However, follow-up analyses showed that the responsibility framing effect was not statistically significant for the grocery message, $F(1, 478) = 0.05$, $p = .826$; the high school message, $F(1, 478) = 0.30$, $p = .583$; or the music festival message, $F(1, 478) = 0.53$, $p = .466$. Thus, although the interaction involving message variance was statistically significant, it did not resolve into a statistically significant responsibility framing effect within any single message variant.

Although content structures did not significantly affect anger, anger varied by message variance and localization in news reporting. The main effect of message variance was statistically significant for anger, $F(1.95, 929.52) = 4.63$, $p = .011$, $\eta^2_p = .010$. Bonferroni-adjusted pairwise comparisons showed that anger was significantly higher for the high school message (M = 3.79, SE = 0.08) than for the grocery message (M = 3.68, SE = 0.08), mean difference = 0.11, SE = 0.04, $p = .032$. Anger was also significantly higher for the high school message than for the music festival message (M = 3.66, SE = 0.08), mean difference = 0.14, SE = 0.05, $p = .014$. The grocery message did not differ significantly from the music festival message, mean difference = 0.02, $p = 1.000$. The between-subjects results showed a significant main effect

of localization in news reporting on anger, $F(1, 478) = 4.14$, $p = .043$, $\eta^2_p = .009$. Participants in the national news perspective condition ($M = 3.87$, $SE = 0.11$) reported higher anger than participants in the community news perspective condition ($M = 3.55$, $SE = 0.11$), mean difference = 0.32, $SE = 0.16$, $p = .043$.

The hypotheses also predicted several interaction effects involving content structures, responsibility framing, localization in news reporting, narrative engagement, and discrete emotions. H3c–H3f predicted that content structures and responsibility framing would interact in their associations with narrative engagement, anger, fear, and hopefulness. H6d–H6g predicted that localization in news reporting and content structures would interact in their associations with these same outcomes. H7a–H7d predicted that localization in news reporting and responsibility framing would interact in their associations with narrative engagement and discrete emotions. Finally, H9c–H9f predicted three-way interactions among responsibility framing, content structures, and localization in news reporting for narrative engagement and discrete emotions.

Most of these interaction hypotheses were not supported. The interaction between content structures and responsibility framing was not statistically significant for narrative engagement, anger, fear, or hopefulness; therefore, H3c–H3f were not supported. The interaction between localization in news reporting and content structures was not statistically significant for narrative engagement, anger, or fear; therefore, H6d, H6e, and H6f were not supported. For hopefulness, the interaction between message variance and localization in news reporting was statistically significant, $F(1.97, 943.02) = 3.44$, $p = .033$, $\eta^2_p = .007$, indicating that the localization effect varied across message variants. Follow-up analyses showed that the effect of localization in news reporting was not statistically significant for the grocery message, $F(1, 478) = 2.60$, $p = .108$; the

high school message, $F(1, 478) = 0.16$, $p = .686$; or the music festival message, $F(1, 478) < 0.01$, $p = .946$.

The interaction among message variance, content structures, and localization in news reporting was also statistically significant, $F(1.97, 943.02) = 3.44$, $p = .033$, $\eta^2_p = .007$. However, follow-up analyses showed that the interaction between content structures and localization in news reporting was not statistically significant for the grocery message, $F(1, 478) = 0.30$, $p = .585$; the high school message, $F(1, 478) = 2.20$, $p = .139$; or the music festival message, $F(1, 478) = 0.08$, $p = .780$. Thus, although message-related interactions emerged for hopefulness, these interactions did not resolve into statistically significant localization effects or statistically significant interactions between content structures and localization in news reporting within any single message variant. Therefore, H6g was finally not supported.

Among the hypotheses predicting interaction effects between localization in news reporting and responsibility framing on narrative engagement and discrete emotions, only H7a received partial support at the overall interaction-test level. The interaction between localization in news reporting and responsibility framing was statistically significant for narrative engagement, $F(1, 478) = 5.26$, $p = .022$, $\eta^2_p = .011$. However, Bonferroni-adjusted pairwise comparisons among the four combined conditions formed by localization in news reporting and responsibility framing showed that no pairwise differences reached statistical significance.

Descriptively, narrative engagement was highest in the individual-level responsibility framing and community news perspective condition ($M = 5.46$, $SE = 0.07$) and lowest in the structural-level responsibility framing and community news perspective condition ($M = 5.20$, $SE = 0.07$). The largest pairwise difference was between these two conditions, but this difference was not statistically significant after Bonferroni adjustment, mean difference = 0.26, $SE = 0.10$, p

= .073. Thus, H7a received limited support at the interaction level, and the hypothesized pattern was not confirmed by Bonferroni-adjusted pairwise comparisons. The corresponding interactions were not statistically significant for anger, fear, or hopefulness; therefore, H7b–H7d were not supported as two-way interaction hypotheses.

The three-way interaction hypotheses for narrative engagement and discrete emotions received only limited support for anger and hopefulness. For narrative engagement, the three-way interaction among responsibility framing, content structures, and localization in news reporting was not statistically significant; therefore, H9c was not supported. For anger, the three-way interaction was statistically significant, $F(1, 478) = 5.93$, $p = .015$, $\eta^2_p = .012$. H9d predicted that anger would be lowest in the structural-level responsibility framing, non-narrative, national news perspective condition and highest in the individual-level responsibility framing, narrative, community news perspective condition. However, Bonferroni-adjusted pairwise comparisons among the eight combined conditions formed by responsibility framing, content structures, and localization in news reporting showed that no pairwise differences reached statistical significance.

Descriptively, anger was highest in the individual-level responsibility framing, narrative, national news perspective condition ($M = 4.22$, $SE = 0.22$) and lowest in the structural-level responsibility framing, non-narrative, community news perspective condition ($M = 3.39$, $SE = 0.22$). The largest pairwise difference was between these two conditions, but this difference was not statistically significant after Bonferroni adjustment, mean difference = 0.82, $SE = 0.31$, $p = .239$. Thus, although the three-way interaction was statistically significant, the Bonferroni-adjusted pairwise comparisons did not identify statistically significant differences among the

eight combined conditions. In this sense, H9d therefore received limited support at the interaction level, but the hypothesized interaction pattern was not confirmed.

For fear, the three-way interaction was not statistically significant; therefore, H9e was not supported. For hopefulness, the three-way interaction among responsibility framing, content structures, and localization in news reporting was statistically significant, $F(1, 478) = 4.97$, $p = .026$, $\eta^2_p = .010$. Bonferroni-adjusted pairwise comparisons among the eight combined conditions formed by responsibility framing, content structures, and localization in news reporting showed that no pairwise differences reached statistical significance. Descriptively, hopefulness was highest in the structural-level responsibility framing, narrative, community news perspective condition ($M = 2.46$, $SE = 0.18$) and lowest in the individual-level responsibility framing, non-narrative, national news perspective condition ($M = 1.92$, $SE = 0.19$). The largest pairwise difference was between these two conditions, but this difference was not statistically significant after Bonferroni adjustment, mean difference = 0.54, $SE = 0.26$, $p = 1.000$. Hence, H9f received limited support based on the statistically significant overall three-way interaction, but the hypothesized interaction pattern was not confirmed.

Psychological Proximity, Fear of Crime, and Civic Engagement Intentions. The next set of analyses examined psychological proximity, fear of crime, and civic engagement intentions, which were central to hypotheses concerning localization in news reporting and its interactions with responsibility framing and content structures. Specifically, H5c–H5e examined whether localization in news reporting interacted with responsibility framing in relation to psychological proximity, fear of crime, and civic engagement intentions, respectively. H6a–H6c examined whether localization in news reporting interacted with content structures in relation to these same three outcomes. H8a–H8c examined whether content structures interacted with

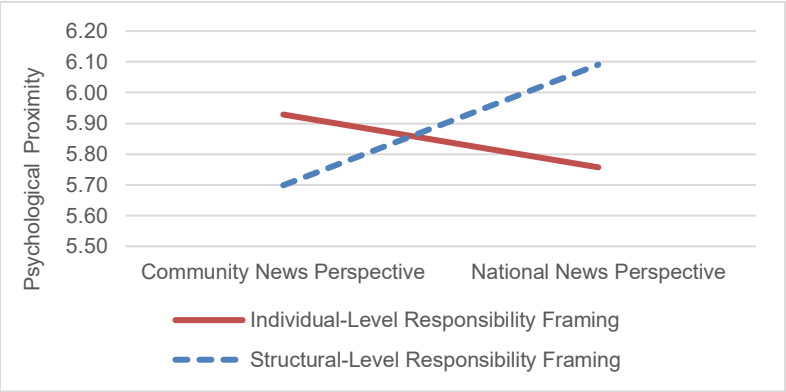
responsibility framing. Finally, H9g–H9i examined whether responsibility framing, content structures, and localization in news reporting jointly interacted in their associations with psychological proximity, fear of crime, and civic engagement intentions.

For psychological proximity, the mixed-design repeated-measures ANOVA showed a statistically significant main effect of message variance, $F(2, 956) = 3.85$, $p = .022$, $\eta^2_p = .008$. Bonferroni-adjusted pairwise comparisons showed that psychological proximity was significantly higher for the grocery message ($M = 5.90$, $SE = 0.04$) than for the music festival message ($M = 5.83$, $SE = 0.05$), mean difference = 0.07, $SE = 0.02$, $p = .013$. The high school message ($M = 5.87$, $SE = 0.04$) did not differ significantly from either the grocery message, mean difference = −0.03, $p = .646$, or the music festival message, mean difference = 0.04, $p = .414$. The interactions involving message variance were not statistically significant.

The interaction between responsibility framing and localization in news reporting was statistically significant for psychological proximity, $F(1, 478) = 11.69$, $p < .001$, $\eta^2_p = .024$. As shown in Figure 29, psychological proximity was highest in the structural-level responsibility framing and national news perspective condition ($M = 6.09$, $SE = 0.08$). Bonferroni-adjusted pairwise comparisons indicated that participants in this condition reported significantly higher psychological proximity than those in the structural-level responsibility framing and community news perspective condition ($M = 5.70$, $SE = 0.08$), mean difference = 0.39, $SE = 0.12$, $p = .006$, and those in the individual-level responsibility framing and national news perspective condition ($M = 5.76$, $SE = 0.08$), mean difference = 0.33, $SE = 0.12$, $p = .029$. The remaining Bonferroni-adjusted pairwise comparisons were not statistically significant.

Figure 29

Estimated Marginal Means of Psychological Proximity by Responsibility Framing and Localization in News Reporting



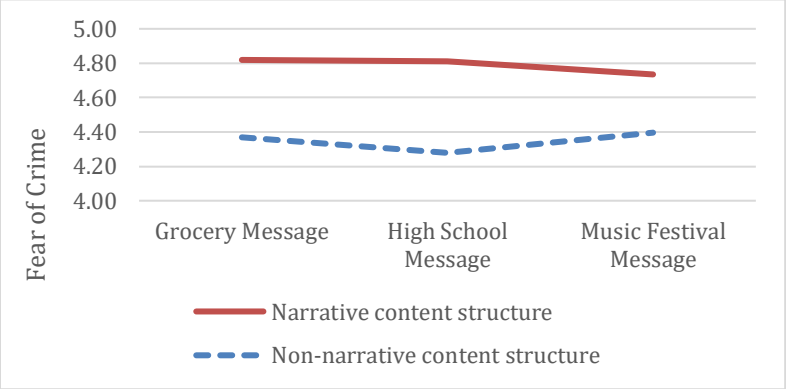
Thus, H5c received partial support at the interaction level; however, the predicted interaction pattern was not supported because psychological proximity was highest in the structural-level responsibility framing and national news perspective condition rather than in the individual-level responsibility framing and community news perspective condition. The remaining psychological proximity interaction hypotheses were not supported: the interaction between localization in news reporting and content structures, the interaction between content structures and responsibility framing, and the three-way interaction among responsibility framing, content structures, and localization in news reporting were not statistically significant. Thus, H6a, H8a, and H9g were not supported.

For fear of crime, the hypothesized interaction effects involving localization in news reporting were not supported. The interaction between localization in news reporting and responsibility framing, the interaction between localization in news reporting and content structures, the interaction between content structures and responsibility framing, and the three-way interaction among responsibility framing, content structure, and localization in news reporting were not statistically significant. Thus, H5d, H6b, H8b, and H9h were not supported.

In addition, fear of crime varied by content structure. The between-subjects main effect of content structures was statistically significant, $F(1, 478) = 9.62$, $p = .002$, $\eta^2_p = .020$. Participants in the narrative condition ($M = 4.79$, $SE = 0.10$) reported higher fear of crime than participants in the non-narrative condition ($M = 4.35$, $SE = 0.10$), mean difference = 0.44, $SE = 0.14$, $p = .002$. Moreover, the effect of content structures on fear of crime also varied across message variants. The interaction between message variance and content structures was statistically significant, $F(2, 956) = 3.41$, $p = .033$, $\eta^2_p = .007$. The effect of content structures was statistically significant for the grocery message, $F(1, 478) = 8.97$, $p = .003$; high school message, $F(1, 478) = 13.44$, $p < .001$; and music festival message, $F(1, 478) = 5.14$, $p = .024$. As shown in Figure 30, Bonferroni-adjusted pairwise comparisons indicated that participants in the narrative condition reported higher fear of crime than participants in the non-narrative condition across all three message variants. The mean differences were 0.45, $SE = 0.15$, $p = .003$, for the grocery message; 0.53, $SE = 0.15$, $p < .001$, for the high school message; and 0.34, $SE = 0.15$, $p = .024$, for the music festival message.

Figure 30

Estimated Marginal Means of Fear of Crime by Content Structures and Message Variance



For civic engagement intentions, the main effect of message variance and all interactions involving message variance were not statistically significant. The interaction between

responsibility framing and localization in news reporting was statistically significant, $F(1, 478) = 5.43$, $p = .020$, $\eta^2_p = .011$. Bonferroni-adjusted pairwise comparisons among the four combined conditions formed by responsibility framing and localization in news reporting showed that no pairwise differences reached statistical significance. Descriptively, civic engagement intentions were highest in the structural-level responsibility framing and national news perspective condition ($M = 5.19$, $SE = 0.11$) and lowest in the individual-level responsibility framing and national news perspective condition ($M = 4.91$, $SE = 0.10$). The largest pairwise difference was between the structural-level responsibility framing and national news perspective condition and the individual-level responsibility framing and national news perspective condition, but this difference was not statistically significant after Bonferroni adjustment, mean difference = 0.29, $SE = 0.15$, $p = .340$.

Although the interaction between responsibility framing and localization in news reporting was statistically significant, the Bonferroni-adjusted pairwise comparisons did not identify statistically significant differences among the four combined conditions. Hence, H5e received partial support at the interaction level. Although the interaction between responsibility framing and localization in news reporting was statistically significant for civic engagement intentions, the Bonferroni-adjusted pairwise comparisons did not identify statistically significant differences among the four combined conditions. Additionally, the remaining civic engagement interaction hypotheses were not supported. The interaction between localization in news reporting and content structures, the interaction between content structures and responsibility framing, and the three-way interaction among responsibility framing, content structures, and localization in news reporting were not statistically significant. Thus, H6c, H8c, and H9i were not supported.

Perceived News Credibility, Newsworthiness, and News Quality. The final set of mixed-design repeated-measures ANOVAs examined perceived news credibility, perceived newsworthiness, and perceived news quality. These analyses addressed RQ1a–RQ1c, which asked whether the interaction among responsibility framing, content structures, and localization in news reporting would be associated with participants' evaluations of the news messages.

For perceived news credibility, RQ1a asked whether the interaction among responsibility framing, content structures, and localization in news reporting would be associated with perceived news credibility. The three-way interaction specified in RQ1a was not statistically significant. The main effect of message variance was also not statistically significant, but the interaction among message variance, responsibility framing, and content structures was statistically significant, $F(2, 956) = 3.29$, $p = .038$, $\eta^2_p = .007$, indicating that perceived news credibility varied by combinations of responsibility framing and content structures differently across message variants. Follow-up analyses showed that the interaction between responsibility framing and content structures was not statistically significant for the grocery message, $F(1, 478) = 0.01$, $p = .943$; the high school message, $F(1, 478) = 1.99$, $p = .159$; or the music festival message, $F(1, 478) = 1.94$, $p = .165$. Thus, the significant interaction involving message variance did not resolve into a statistically significant interaction between responsibility framing and content structures within any single message variant.

The between-subjects results for perceived news credibility also showed a significant interaction between responsibility framing and localization in news reporting, $F(1, 478) = 4.25$, $p = .040$, $\eta^2_p = .009$. Bonferroni-adjusted pairwise comparisons among the four combined conditions formed by responsibility framing and localization in news reporting showed that no pairwise differences reached statistical significance. Specifically, perceived news credibility was

highest in the individual-level responsibility framing and community news perspective condition (M = 5.16, SE = 0.09) and lowest in the structural-level responsibility framing and community news perspective condition (M = 4.91, SE = 0.09). The largest pairwise difference was between these two conditions, but this difference was not statistically significant after Bonferroni adjustment, mean difference = 0.25, SE = 0.13, p = .258.

Taken together, RQ1a was not supported because the specified three-way interaction among responsibility framing, content structures, and localization in news reporting was not statistically significant. Still, the results showed significant interactions among message variance, responsibility framing, and content structures, as well as between responsibility framing and localization in news reporting, although the follow-up analyses provided only limited evidence of variation in perceived news credibility across the experimental conditions.

For perceived newsworthiness, RQ1b asked whether the interaction among responsibility framing, content structures, and localization in news reporting would be associated with perceived newsworthiness. The three-way interaction specified in RQ1b was not statistically significant. The main effect of message variance and all interactions involving message variance were also not statistically significant. The between-subjects results showed a significant interaction between responsibility framing and content structures, $F(1, 478) = 4.43$, $p = .036$, $\eta^2_p = .009$, and a significant interaction between responsibility framing and localization in news reporting, $F(1, 478) = 8.72$, $p = .003$, $\eta^2_p = .018$.

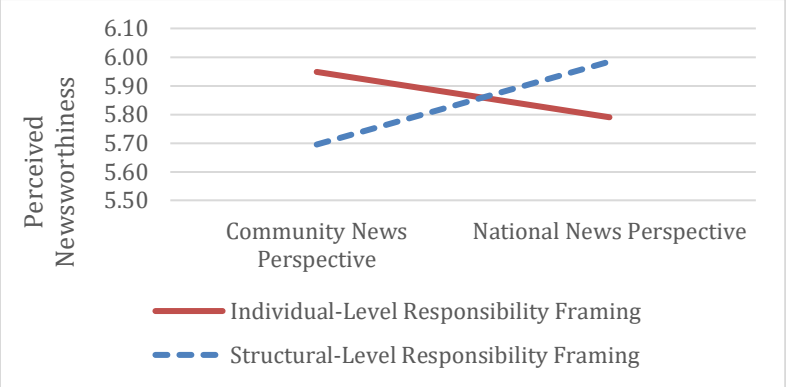
For the interaction between responsibility framing and content structures, Bonferroni-adjusted pairwise comparisons showed that no differences among the four combined conditions reached statistical significance. Specifically, perceived newsworthiness was highest in the individual-level responsibility framing and narrative condition (M = 5.97, SE = 0.07) and lowest

in the individual-level responsibility framing and non-narrative condition (M = 5.77, SE = 0.08). The largest pairwise difference was between these two conditions, but this difference was not statistically significant after Bonferroni adjustment, mean difference = 0.21, SE = 0.11, p = .320.

For the interaction between responsibility framing and localization in news reporting, Bonferroni-adjusted pairwise comparisons indicated that, as shown in Figure 31, participants in the structural-level responsibility framing and national news perspective condition (M = 5.98, SE = 0.08) reported significantly higher perceived newsworthiness than participants in the structural-level responsibility framing and community news perspective condition (M = 5.69, SE = 0.08), mean difference = 0.29, SE = 0.11, p = .046. No other Bonferroni-adjusted pairwise comparisons reached statistical significance. Therefore, RQ1b was not supported by the hypothesized three-way interaction. Still, perceived newsworthiness was related to significant two-way interactions involving responsibility framing, content structures, and localization in news reporting, although the follow-up comparisons provided limited evidence of differences across the combined experimental conditions.

Figure 31

Estimated Marginal Means of Perceived Newsworthiness by Responsibility Framing and Localization in News Reporting



For perceived news quality, RQ1c asked whether the interaction among responsibility framing, content structures, and localization in news reporting would be associated with perceived news quality. The three-way interaction specified in RQ1c was not statistically significant. The main effect of message variance and all interactions involving message variance were also not statistically significant. The between-subjects results showed a significant interaction between responsibility framing and content structures, $F(1, 478) = 3.91$, $p = .048$, $\eta^2_p = .008$, and a significant interaction between responsibility framing and localization in news reporting, $F(1, 478) = 4.40$, $p = .037$, $\eta^2_p = .009$.

For the interaction between responsibility framing and content structures, Bonferroni-adjusted pairwise comparisons showed that no differences among the four combined conditions reached statistical significance. Descriptively, perceived news quality was highest in the individual-level responsibility framing and narrative condition ($M = 5.51$, $SE = 0.09$) and lowest in the individual-level responsibility framing and non-narrative condition ($M = 5.31$, $SE = 0.09$). The largest pairwise difference was between these two conditions, but this difference was not statistically significant after Bonferroni adjustment, mean difference = 0.21, $SE = 0.13$, $p = .619$.

For the interaction between responsibility framing and localization in news reporting, Bonferroni-adjusted pairwise comparisons were conducted among the four combined conditions formed by responsibility framing and localization in news reporting. These comparisons showed that no pairwise differences reached statistical significance. Specifically, perceived news quality was highest in the structural-level responsibility framing and national news perspective condition ($M = 5.56$, $SE = 0.09$) and lowest in the structural-level responsibility framing and community news perspective condition ($M = 5.26$, $SE = 0.09$). The largest pairwise difference was between these two conditions, but this difference was not statistically significant after Bonferroni

adjustment, mean difference = 0.29, *SE* = 0.13, *p* = .145. Hence, RQ1c was not supported by the hypothesized three-way interaction. Although perceived news quality was related to significant two-way interactions involving responsibility framing, content structures, and localization in news reporting, the follow-up comparisons provided only limited evidence of differences across the combined experimental conditions.

4.2.3. Mediation Analysis Results

PROCESS Model 4 was used to test whether psychological proximity mediated the effect of localization in news reporting on fear of crime and civic engagement intentions. Localization in news reporting was coded as 0 = national and 1 = local; thus, a coefficient in the positive direction indicates an association with community news perspective, a higher level of localization in news reporting. Indirect effects were tested using 5,000 bootstrap samples with 95% percentile bootstrap confidence intervals. Mediation was considered supported when the bootstrap confidence interval for the indirect effect did not include zero. Relevant model statistics, including direct, indirect, and total effects, standard errors, confidence intervals, and model fit statistics, are reported in Table 7.

H4a predicted that exposure to a higher level of localization in news reporting would be related to greater psychological proximity to the covered mass shooting incident. Because the mediation analyses were conducted separately by message variance, this hypothesis was evaluated using the path from localization in news reporting to psychological proximity in each message-specific mediation model. Localization in news reporting was not significantly associated with psychological proximity for the grocery message, *b* = −0.13, *SE* = 0.09, *p* = .145; the high school message, *b* = −0.12, *SE* = 0.09, *p* = .161; or the music festival message, *b* = −0.079, *SE* = 0.092, *p* = .388. Hence, H4a was not supported.

Table 7

Mediation Analysis Results for Psychological Proximity as a Mediator Using PROCESS Model 4

Outcome	Message variant	Effect	*b*	*SE*	*t*	*p*	LLCI	ULCI
Fear of crime	Grocery	Path *a*: $X \rightarrow M$	-0.13	0.09	-1.46	.145	-0.300	0.044
		Path *b*: $M \rightarrow Y$	**0.50**	**0.08**	**6.55**	**< .001**	**0.347**	**0.645**
		Direct effect (*c′*)	-0.10	0.15	-0.67	.504	-0.385	0.190
		Total effect (*c*)	-0.16	0.15	-1.06	.290	-0.460	0.138
		Indirect effect (*ab*)	-0.06	0.044	—	—	-0.153	0.020
	High school	Path *a*: $X \rightarrow M$	-0.12	0.09	-1.40	.161	-0.288	0.048
		Path *b*: $M \rightarrow Y$	**0.48**	**0.08**	**6.33**	**< .001**	**0.328**	**0.623**
		Direct effect (*c′*)	-0.20	0.14	-1.42	.157	-0.478	0.077
		Total effect (*c*)	-0.26	0.15	-1.76	.080	-0.546	0.031
		Indirect effect (*ab*)	-0.06	0.041	—	—	-0.142	0.024
	Music festival	Path *a*: $X \rightarrow M$	-0.08	0.09	-0.86	.388	-0.259	0.101
		Path *b*: $M \rightarrow Y$	**0.43**	**0.07**	**5.93**	**< .001**	**0.285**	**0.567**
		Direct effect (*c′*)	-0.14	0.14	-0.94	.347	-0.421	0.148
		Total effect (*c*)	-0.17	0.15	-1.14	.257	-0.464	0.124
		Indirect effect (*ab*)	-0.03	0.041	—	—	-0.118	0.044
Civic engagement intentions	Grocery	Path *a*: $X \rightarrow M$	-0.13	0.09	-1.46	.145	-0.300	0.044
		Path *b*: $M \rightarrow Y$	**0.20**	**0.05**	**3.74**	**< .001**	**0.097**	**0.312**
		Direct effect (*c′*)	0.02	0.11	0.18	.858	-0.188	0.226
		Total effect (*c*)	-0.01	0.11	-0.07	.946	-0.217	0.202
		Indirect effect (*ab*)	-0.03	0.021	—	—	-0.074	0.009
	High school	Path *a*: $X \rightarrow M$	-0.12	0.09	-1.40	.161	-0.288	0.048
		Path *b*: $M \rightarrow Y$	**0.19**	**0.06**	**3.38**	**< .001**	**0.079**	**0.299**
		Direct effect (*c′*)	0.01	0.11	0.14	.889	-0.193	0.222
		Total effect (*c*)	-0.01	0.11	-0.08	.940	-0.217	0.201
		Indirect effect (*ab*)	-0.02	0.019	—	—	-0.064	0.010
	Music festival	Path *a*: $X \rightarrow M$	-0.08	0.09	-0.86	.388	-0.259	0.101
		Path *b*: $M \rightarrow Y$	**0.21**	**0.05**	**3.96**	**< .001**	**0.106**	**0.314**
		Direct effect (*c′*)	-0.01	0.11	-0.05	.957	-0.216	0.204
		Total effect (*c*)	-0.02	0.11	-0.21	.837	-0.235	0.191
		Indirect effect (*ab*)	-0.02	0.021	—	—	-0.062	0.022

Note. PROCESS Model 4 tested whether psychological proximity mediated the effect of localization on each outcome listed in the first column. Path *a* represents $X \rightarrow M$; path *b* represents $M \rightarrow Y$ controlling for *X*; *c′* represents the direct effect; *c* represents the total effect; and *ab* represents the indirect effect. The *b* column reports unstandardized coefficients/effects. For path, direct, and total effects, *SE*, LLCI, and ULCI refer to regression-based standard errors and 95% confidence intervals; for indirect effects, they refer to BootSE, BootLLCI, and BootULCI. *t* and *p* values were not provided for indirect effects and are marked with dashes. Bootstrap confidence intervals were based on 5,000 bootstrap samples.

H4b predicted that greater psychological proximity to covered mass shooting violence would be associated with increased fear of crime. This hypothesis was supported. Psychological proximity was positively associated with fear of crime across all three message variants, controlling for localization in news reporting. This association was statistically significant for the grocery message, $b = 0.50$, $SE = 0.08$, $p < .001$; high school message, $b = 0.48$, $SE = 0.08$, $p < .001$; and music festival message, $b = 0.43$, $SE = 0.07$, $p < .001$.

H4c predicted that psychological proximity would mediate the association between localization in news reporting and fear of crime. For the grocery message, the direct effect between localization in news reporting and fear of crime was not statistically significant, $b = -0.10$, $SE = 0.15$, $p = .504$, and the total effect was also not statistically significant, $b = -0.16$, $SE = 0.15$, $p = .290$. The indirect effect through psychological proximity was not statistically significant, $ab = -0.06$, $BootSE = 0.044$, 95% bootstrap CI [−0.153, 0.020]. For the high school message, the direct effect was not statistically significant, $b = -0.20$, $SE = 0.14$, $p = .157$, and the total effect was also not statistically significant, $b = -0.26$, $SE = 0.15$, $p = .080$. The indirect effect through psychological proximity was not statistically significant, $ab = -0.06$, $BootSE = 0.041$, 95% bootstrap CI [−0.142, 0.024].

For the music festival message, the direct effect was not statistically significant, $b = -0.14$, $SE = 0.15$, $p = .347$, and the total effect was also not statistically significant, $b = -0.17$, $SE = 0.15$, $p = .257$. The indirect effect through psychological proximity was not statistically significant, $ab = -0.03$, $BootSE = 0.041$, 95% bootstrap CI [−0.118, 0.044]. Thus, H4c was not supported for any of the three message variants. Although psychological proximity was significantly and positively associated with fear of crime across the three message variants, the direction of the non-significant localization-to-psychological-proximity path did not align with

H4c. Specifically, community news perspective, representing a higher level of localization in news reporting, was associated with lower psychological proximity. As a result, the indirect associations through psychological proximity were not statistically significant and were negative; thus, they did not correspond to the hypothesized mediation direction.

H4d predicted that greater psychological proximity to covered mass shooting violence would be associated with increased civic engagement intentions. This hypothesis was supported. Psychological proximity was positively associated with civic engagement intentions across all three message variants, controlling for localization in news reporting. This association was statistically significant for the grocery message, $b = 0.20$, $SE = 0.06$, $p < .001$; the high school message, $b = 0.19$, $SE = 0.06$, $p < .001$; and the music festival message, $b = 0.21$, $SE = 0.05$, $p < .001$.

H4e predicted that psychological proximity would mediate the association between localization in news reporting and civic engagement intentions. This hypothesis was not supported. For the grocery message, the direct effect between localization in news reporting and civic engagement intentions was not statistically significant, $b = 0.02$, $SE = 0.11$, $p = .858$, and the total effect was also not statistically significant, $b = -0.01$, $SE = 0.11$, $p = .946$. The indirect effect through psychological proximity was not statistically significant, $ab = -0.03$, $BootSE = 0.021$, 95% bootstrap CI [–0.074, 0.009]. For the high school message, the direct effect was not statistically significant, $b = 0.02$, $SE = 0.11$, $p = .889$, and the total effect was also not statistically significant, $b = -0.01$, $SE = 0.11$, $p = .940$. The indirect effect through psychological proximity was not statistically significant, $ab = -0.02$, $BootSE = 0.019$, 95% bootstrap CI [−0.064, 0.010].

For the music festival message, the direct effect was not statistically significant, $b = -0.01$, $SE = 0.11$, $p = .957$, and the total effect was also not statistically significant, $b = -0.02$, $SE = 0.11$, $p = .837$. The indirect effect through psychological proximity was not statistically significant, $ab = -0.02$, $BootSE = 0.021$, 95% bootstrap CI [−0.062, 0.022]. Thus, H4e was not supported for any of the three message variants. Although psychological proximity was significantly and positively associated with civic engagement intentions across the three message variants, the direction of the non-significant localization-to-psychological-proximity path did not align with H4e. Specifically, community news perspective, representing a higher level of localization in news reporting, was associated with lower psychological proximity. As a result, the indirect associations through psychological proximity were not statistically significant and were negative; thus, they did not correspond to the hypothesized mediation direction.

Overall, the mediation analyses showed that psychological proximity was consistently and positively associated with fear of crime and civic engagement intentions across message variants. Nevertheless, localization in news reporting did not significantly predict psychological proximity, and none of the bootstrapped indirect effects was statistically significant. Therefore, the hypothesized mediation paths were not supported.

4.2.4. Summary of Hypothesis Testing

Taken together, the hypothesis tests provided support for a limited subset of the proposed predictions. The clearest support was found for content structures and psychological proximity. Narrative messages were associated with higher narrative engagement and stronger discrete fear than non-narrative messages, supporting H2a and H2c. Psychological proximity was also consistently and positively associated with fear of crime and civic engagement intentions across the three message variants, supporting H4b and H4d. However, structural-level responsibility

framing was not associated with higher structural-level causal or treatment responsibility attributions, so H1a and H1b were not supported. Localization in news reporting also did not increase psychological proximity as predicted; therefore, H4a was not supported. As a result, the hypothesized mediation paths from localization in news reporting to fear of crime and civic engagement intentions through psychological proximity were not supported, and H4c and H4e were not supported.

Most interaction hypotheses were not supported. H7a received partial support only at the overall interaction-test level; however, follow-up comparisons did not show significant differences across the four conditions formed by localization in news reporting and responsibility framing. H5c and H5e also received partial support at the interaction level for psychological proximity and civic engagement intentions, respectively, but the follow-up patterns either did not align with the predicted direction or did not show statistically significant pairwise differences. H9d and H9f received limited support based on statistically significant three-way interactions for anger and hopefulness, respectively, but Bonferroni-adjusted pairwise comparisons did not identify statistically significant differences among the combined conditions, and the descriptive patterns did not confirm the hypothesized directions. The research questions concerning perceived news credibility, perceived newsworthiness, and perceived news quality were not supported by the identified three-way interactions among responsibility framing, content structures, and localization in news reporting. Although several additional message-variance-related or two-way interactions emerged, the overall pattern of results provided only limited support for the more complex interaction and mediation hypotheses.

Chapter 5. Discussion and Conclusion

The current study examined whether and how three news message features—responsibility framing, content structures, and localization in news reporting—are related to audiences' responses to mass shooting news in the U.S. Specifically, the study tested whether individual-level versus structural-level responsibility framing, narrative versus non-narrative content structures, and national versus community news perspectives were related to audiences' responsibility attributions for the mass shooting issue, narrative engagement, discrete emotions, psychological proximity, fear of crime, civic engagement intentions, and perceived news credibility, newsworthiness, and news quality. The study also investigated two mediation paths, testing whether a higher level of localization in news reporting was associated with greater psychological proximity, which in turn was expected to be associated with greater fear of crime and stronger civic engagement intentions. These relationships were examined across three message variants: a grocery shooting, a high school shooting, and a music festival shooting.

Guided by Framing Theory, Transportation Theory, and Construal-Level Theory, this study considered mass shootings not only as violent events but also as a social issue that people often come to know through mediated forms of communication, including news messages. Accordingly, this study investigated whether and how three news message features could influence audiences' understanding of the primary causes of and solutions to the mass shooting problem, emotional and experiential involvement with the message, perceived psychological closeness to the problem, and intentions to engage civically in community development.

To examine the potential effects of the three news message attributes, this study employed a mixed factorial experiment. Responsibility framing, content structures, and localization in news reporting were manipulated as between-subject factors. Participants were randomly assigned to one of eight experimental conditions that varied by individual-level versus

structural-level responsibility framing, narrative versus non-narrative content structures, and national versus community news perspectives. Within each condition, participants read three fictional, text-based news messages about mass shooting incidents, with each message representing a different message variant: a grocery shooting, a high school shooting, or a music festival mass shooting. After each message, participants reported their causal and treatment responsibility attributions for the mass shooting issue, narrative engagement, discrete emotions, psychological proximity, fear of crime, civic engagement intentions, and evaluations of the message's credibility, newsworthiness, and quality.

Overall, the findings provide a nuanced rather than uniformly supportive picture of mass shooting news message effects. Many of the hypothesized complex interaction effects were not supported. The predicted interactions among responsibility framing, content structures, and localization in news reporting were often not statistically significant, and some statistically significant interaction terms did not yield clear condition-specific differences in follow-up analyses. The mediation models were also not supported: localization in news reporting did not significantly increase psychological proximity, and psychological proximity did not mediate the relationship between localization in news reporting and either fear of crime or civic engagement intentions, although psychological proximity was significantly and positively related to both outcomes.

Meanwhile, the results revealed meaningful main effects and highly specific interaction effects that offer more detailed insight into how individuals react to mass shooting news messages. Individual-level responsibility framing was significantly associated with individual-level causal and treatment responsibility attributions, although structural-level responsibility framing did not significantly increase structural-level attributions as predicted. Content structures

showed a clearer predicted pattern, with narrative messages increasing narrative engagement and the discrete emotion of fear. Psychological proximity also showed a consistent pattern, as it was positively associated with both fear of crime and civic engagement intentions across the three message variants.

Taken together, these findings suggest that responses to mass shooting news are, to some degree, selective, outcome-specific, and context-dependent. Content structures, especially narrative reporting, appeared more closely related to immediate experiential and emotional responses, including narrative engagement, discrete fear, and fear of crime. By contrast, outcomes such as structural-level causal and treatment responsibility attributions and civic engagement intentions appeared more resistant to change after a single exposure to a news message, as structural-level responsibility framing did not significantly increase structural-level responsibility attributions and the hypothesized mediation paths predicting civic engagement intentions through psychological proximity were not supported. This distinction matters especially in the context of mass shootings, where public understanding is often shaped by prior beliefs, political polarization, repeated media exposure, and culturally familiar ways of explaining violence.

With these findings as the starting point, this chapter unfolds in four parts. It begins with a discussion of the study's key findings, examining the results of the hypothesis tests and research questions and considering what they reveal about responsibility framing, content structures, localization in news reporting, psychological proximity, fear of crime, civic engagement intentions, and the interaction effects observed for different outcomes and across message variants. This chapter then turns to the broader significance of the findings, discussing their contributions to scholarship on framing effects, narrative engagement, and psychological

proximity, as well as their implications for journalistic practice. Next, attention is given to the study's methodological and conceptual constraints, along with opportunities for future research that could build on the present work. The chapter concludes by synthesizing the study's central findings and reflecting on what they suggest about how mass shooting news coverage relates to responsibility attribution perceptions, emotional responses, psychological proximity, fear of crime, and civic engagement.

5.1. Unpacking the Study's Key Findings

5.1.1. Responsibility Framing: The Power of the Individual-Level Lens in the U.S.

The findings suggest that responsibility framing mattered most clearly when the message emphasized individual-level causes and solutions. Participants who read news messages using individual-level responsibility framing reported stronger individual-level causal attributions (M = 4.01 vs. M = 3.61, p = .002) and treatment attributions (M = 4.23 vs. M = 3.85, p = .005) than those who read structurally framed messages. In other words, when mass shooting news emphasized individual-level factors, such as the shooter's mental health problems, personal grievances, and individuals' ability to protect themselves through armed protection, participants became more likely to understand both the causes of and solutions to mass shootings through an individual-level lens.

This finding is consistent with Iyengar's (1991) foundational argument that news responsibility framing has an impact on how audiences assign responsibility for social problems. When news stories focus on personal characteristics, individual actions, or isolated cases, audiences may become more inclined to understand the issue in terms of individual-level causes and solutions rather than broader social conditions (Iyengar, 1991, 1996). Across policy domains such as poverty, crime, and natural disasters, prior research has similarly shown that individual-

level responsibility framing could draw attention toward personal failings, choices, or behaviors as the source of public problems (e.g., Ben-Porath & Shaker, 2010; Feezell et al., 2019; Iyengar, 1996; S.-H. Kim et al., 2012). The present study extends this logic to mass shooting news by showing that participants exposed to individual-level responsibility framing were more likely to adopt individual-level explanations and remedies for mass shooting violence.

This result also aligns with research extending Iyengar's work, which suggests that news coverage emphasizing individual experiences could shift attention away from broader political, institutional, and structural conditions (Bennett, 1996; Boukes, 2022; Eide, 2017; Iyengar, 1991). Eide (2017), for example, elaborated that human-interest-oriented news narratives frequently foreground personal experiences while downplaying structural dimensions of social problems. As a result, audiences may develop a more individualized and personal-focused understanding of public issues rather than a collective understanding that recognizes systemic causes and solutions (Bennett, 1996; Boukes, 2022). The current findings suggest that a similar process may occur when audiences are exposed to mass shooting coverage. When news messages focus on the shooter's personal characteristics and actions, as well as ordinary people's ability to use firearms for self-protection, audiences appear more likely to interpret mass shootings as problems rooted in individual behavior and immediate protection measures, such as self-defense and armed security, rather than broader social conditions, such as social disorganization and economic deprivation.

At the same time, the absence of significant structural-level responsibility framing effects complicates expectations derived from prior responsibility framing research. H1a and H1b predicted that, compared to individual-level responsibility framing, structural-level responsibility framing would increase structural-level causal and treatment responsibility attributions, but

neither hypothesis was supported. This finding runs counter to the expectation that emphasizing systemic failures, institutional conditions, or policy-level causes would encourage audiences to attribute responsibility to broader societal forces. Prior research demonstrated that structural-level responsibility framing could encourage audiences to consider societal and governmental forces as responsible for both causing and addressing social issues (e.g., Ben-Porath & Shaker, 2010; Feezell et al., 2019; Iyengar, 1996; S.-H. Kim et al., 2012; Niederdeppe et al., 2011). In the present study, however, structural-level messages emphasizing high-risk access to firearms, social disorganization, and economic deprivation did not significantly increase structural-level responsibility attributions.

One possible explanation is that structural-level responsibility framing may be harder to activate in the context of U.S. mass shooting news because gun violence is embedded in a cultural and political environment that strongly emphasizes individualism, personal freedom, self-reliance, and resistance to government overreach (Carlson, 2015; Cook & Goss, 2014; Melzer, 2009; Schwartz, 2022; Warner & Ratcliff, 2021). In this context, firearms are often linked to autonomy, citizenship, and personal agency. This association may make individual-level explanations feel more familiar, and therefore more readily accessible, to U.S. audiences than structural-level explanations. This interpretation is consistent with scholarship suggesting that cultural context could shape responsibility framing effects and may help explain why similar framing may operate differently across societies (e.g., Aarøe, 2011; Boukes, 2022; Scheufele & Iyengar, 2012).

Cross-national research on responsibility framing provides support for this interpretation. Some Northern European studies have found that individual-level responsibility framing could lead audiences toward structural-level responsibility attributions, whereas U.S.-based studies

have more commonly found that individual-level responsibility framing reinforces individual-level responsibility attributions. This difference may be partly explained by cultural context. Compared with American culture, Northern European societies tend to place less emphasis on individualism and more emphasis on governmental responsibility for addressing major social problems, a tendency reflected in strong welfare systems, broad social insurance coverage, higher job security, and more equitable income distribution (Aarøe & Petersen, 2014; Hofstede, 2001; Trompenaars & Hampden-Turner, 2012).

In this context, individual-level responsibility framing may evoke empathy toward those affected and, in turn, strengthen the belief that responsibility lies with political or institutional actors rather than with individual citizens (Aarøe, 2011; Boukes, 2022; Grabe et al., 2017; Gross, 2008). By contrast, American audiences, whose cultural context places greater emphasis on individualism, personal agency, and self-reliance, may be less inclined to consider systemic factors and more likely to assign responsibility to the individual featured in the news story (Boukes, 2022; Gross, 2008; Hart, 2011; Iyengar, 1991; Springer & Harwood, 2015; Strange & Leung, 1999). Thus, even when news coverage includes structural-level explanations, audiences may still fall back on more familiar ways of understanding mass shootings, including individual blame, personal danger, and self-protection.

Overall, these findings suggest that responsibility framing did not operate evenly across individual- and structural-level attributions for the mass shooting issue in the current study. Individual-level responsibility framing significantly increased individual-level causal and treatment responsibility attributions, whereas structural-level responsibility framing did not produce the expected increase in corresponding structural-level responsibility attributions. This imbalance points to the particular salience of the individual-level lens in the U.S. mass shooting

news context, where broader cultural values such as individualism, personal agency, and self-reliance may make individualized explanations especially accessible.

5.1.2. Content Structures: The Emotional Reach of Narrative News

Narrative Transportation and the Emotional Intensification of Mass Shooting News. The findings suggest that narrative news messages were especially relevant to narrative engagement and the discrete emotion of fear. H2a predicted that narrative mass shooting news messages would produce greater narrative engagement than non-narrative messages, and this hypothesis was supported. Participants who read narrative messages reported significantly higher narrative engagement than those who read non-narrative, bullet-point-style messages ($M = 5.40$ vs. $M = 5.25$, $p = .042$). H2c was also supported: participants in the narrative condition reported significantly higher fear than participants in the non-narrative condition ($M = 3.96$ vs. $M = 3.38$, $p < .001$). These findings suggest that narrative content structure tends to make mass shooting news more experientially engaging and more fear-inducing for audiences.

These results are consistent with Transportation Theory, which argues that narratives could draw audiences into the world of a story by sustaining attention, encouraging vivid mental imagery, and reducing awareness of the immediate physical environment (M. C. Green, 2021). When audiences become absorbed in a narrative, they are more likely to experience emotions connected to the characters and events represented in the message (M. C. Green & Fitzgerald, 2017). In the current study, this means that narrative accounts of mass shooting victims, witnesses, public officials, and the unfolding incident may make the violence feel more concrete and emotionally immediate than non-narrative accounts organized around concise factual points. The higher level of narrative engagement observed in the narrative condition therefore supports

the expectation that narrative messages could produce greater audience involvement than non-narrative messages.

The increase in the discrete emotion of fear among participants exposed to narrative messages is also theoretically meaningful. Transportation Theory suggests that emotional response is a central part of narrative influence because narratives could draw audiences into the story world, encourage vivid mental imagery, and elicit emotions connected to the characters and events portrayed in the message (M. C. Green, 2021; M. C. Green & Fitzgerald, 2017). Mass shooting news is particularly likely to evoke fear because it describes sudden, fatal violence in familiar public settings. The current finding also aligns with McQueen et al. (2011), who found that narrative health messages increased risk perception and fear primarily through heightened negative affect. Although McQueen et al.'s study (2011) focused on breast cancer communication rather than crime or mass shooting news, the broader mechanism is relevant; that is, narratives could make risks feel more personally and emotionally salient by presenting them through concrete human experiences. In the present study, narrative mass shooting news appeared to heighten fear in a similar way, suggesting that the emotional force of narrative reporting may be especially strong when messages present vivid accounts of an issue or event with serious consequences.

From Story-Specific Fear to Generalized Fear of Crime. Beyond increasing discrete fear in response to the message itself, narrative content structures were also associated with a broader psychological outcome: fear of crime. Although both outcomes involve fear-related affect, the discrete emotion of fear refers to an emotional response elicited by the news stimulus, whereas fear of crime reflects concern about one's real-life environment, including worry, insecurity, and perceived vulnerability to crime. This finding therefore suggests that narrative

mass shooting news could not only intensify fear toward the reported incident but also extend that fear into audiences' perceptions of everyday safety. Participants in the narrative condition reported significantly higher fear of crime than participants in the non-narrative condition (M = 4.79 vs. M = 4.35, p = .002). This effect was observed across all three message variants; Bonferroni-adjusted pairwise comparisons showed that narrative messages produced higher fear of crime than non-narrative messages for the grocery shooting, the high school shooting, and the music festival shooting. These results suggest that narrative messages were more likely than non-narrative messages to heighten audiences' broader concern about crime.

This finding is consistent with prior research showing that exposure to crime news could increase fear of crime (e.g., Näsi et al., 2020; L. Shi, 2018; C. Silva & Guedes, 2022). Näsi et al. (2020), for example, found that crime news consumption was associated with greater fear of crime across traditional, social, and alternative media platforms. Similarly, L. Shi (2018) found that greater crime news consumption was associated with higher fear of crime among international students in the U.S., even after accounting for students' fear of crime in their home countries. The present study extends this line of research by suggesting that content structures of crime-related news may matter as well. Narrative mass shooting news messages presented the incident through a more story-like format involving victims, witnesses, public officials, and the unfolding violence, using vivid wording that could make the events easier for audiences to visualize. This format may have made the incident feel more concrete, emotionally immediate, and personally relevant than its non-narrative counterpart, which was organized around concise factual points.

The fear-of-crime finding also aligns with research suggesting that media coverage of crime could shape perceptions of environmental danger beyond the specific incident described.

Callanan (2012) found that local television crime news was associated with both perceived neighborhood crime risk and fear of crime, and Smolej and Kivivuori (2006) found that exposure to crime-related tabloid headlines and multiple sources of crime news was associated with avoidance behavior and worry about becoming a victim of violence. These findings suggest that mediated crime stories may serve as cues about the safety of one's broader environment, rather than limiting fear to the specific event being reported. In the present study, narrative mass shooting messages may have operated in a similar way. By presenting the event through concrete human accounts and emotionally salient scenes, narrative news may have encouraged audiences to connect the specific mass shooting incident to broader concerns about public safety, familiar public spaces, and their own possible vulnerability. From this perspective, narrative mass shooting news may generalize fear by encouraging audiences to interpret a specific incident as more than an isolated event—as evidence of vulnerability in everyday public environments (Hale, 1996; C. Silva & Guedes, 2023; Weber, 2014).

The findings also show that narrative content structures did not uniformly increase all discrete emotions. H2b and H2d predicted that narrative mass shooting news would produce higher anger and hopefulness than non-narrative messages, but neither hypothesis was supported. Instead, the effect of narrative content structure was limited to fear. This finding complicates the broader expectation drawn from Transportation Theory that audiences who experience narrative transportation are more likely to exhibit strong emotional responses than those who do not (M. C. Green & Fitzgerald, 2017). It also suggests that the emotional effects of narrative news may be more selective than the theory might generally imply. In the present study, narrative messages appeared especially effective in heightening fear, but they did not significantly increase anger

toward the shooter or policy conditions, nor did they increase hopefulness in response to the criminologist's proposed solutions.

The absence of an anger effect may reflect the complexity of anger as a discrete emotional response. Unlike fear, which is closely tied to aversive activation and risk perception, anger involves the coactivation of both appetitive and aversive motivational systems (S. Lee & Lang, 2009). This means that anger may require more than exposure to vivid accounts of harm. It may also depend on whether audiences identify a clear target of blame and view the event as unjust or preventable. In mass shooting news, narrative descriptions about victims, witnesses, and unfolding violence may make the incident feel more concrete and riskier, thereby increasing fear. However, the same descriptions may not necessarily produce a consistent anger response, especially when anger could be directed toward different targets, such as the shooter, gun policies, mental health systems, social conditions, or public institutions. As a result, fear may be more uniformly activated by narrative mass shooting coverage than anger.

Furthermore, the absence of a hopefulness effect may reflect the difficulty of generating positive emotional responses in a news context centered on severe harm, violence, and perceived vulnerability. Although solution-oriented narrative news has been shown to reduce negative emotions and foster more positive responses toward proposed solutions in some contexts (McIntyre, 2017), the present findings suggest that this process may be more difficult in mass shooting coverage. Even when expert recommendations are included, audiences may remain focused on the severity, unpredictability, and human consequences of the shooting itself. Existing research on multiple emotional responses and emotional shifts in narratives remains limited, particularly regarding movement from intense negative emotions such as fear or anger to more positive emotions such as hopefulness (Fitzgerald et al., 2019; Ophir et al., 2021b). The

present study therefore suggests that the emotional effects of narrative mass shooting news may be selective rather than uniform; that mean, narrative messages increased fear, but they did not produce significant increases in anger or hopefulness.

5.1.3. Beyond Localness: How National News Perspective Produces Psychological Proximity

Rethinking the Assumed Link Between Localization in News Reporting and Psychological Proximity. The findings indicate that localization in news reporting did not increase psychological proximity as expected. H4a predicted that exposure to a higher level of localization in news reporting, represented by a community news perspective, would be associated with greater psychological proximity to the covered mass shooting incident. This hypothesis was not supported. Across the grocery, high school, and music festival message variants, localization in news reporting was not significantly associated with psychological proximity.

The lack of a significant association between localization in news reporting and psychological proximity also helps explain why the mediation hypotheses (i.e., H4c and H4e) were not supported. Across the three message-specific mediation models, localization in news reporting was not significantly associated with psychological proximity, and the non-significant coefficients were negative rather than positive. Therefore, even though psychological proximity was positively associated with both fear of crime and civic engagement intentions, the hypothesized mediation process was not supported because localization in news reporting did not increase psychological proximity as expected. As a result, the indirect associations from localization in news reporting to fear of crime and civic engagement intentions through psychological proximity were not statistically significant and did not follow the predicted direction.

This finding complicates expectations derived from Construal-Level Theory (Gouseti & Jackson, 2015). As applied in this study, the community news perspective was expected to represent a lower-level construal by providing concrete, localized information about the affected community, victims, residents, and community-level consequences. Based on Construal-Level Theory, such a lower-level construal should make a distant event feel more concrete, tangible, and psychologically close. Prior work on psychological proximity and fear of crime also suggests that stranger violence may feel more personally relevant when individuals imagine it occurring nearby, involving people similar to themselves, or unfolding in familiar everyday settings (Gouseti & Jackson, 2015; Jackson, 2006). In this sense, reporting a mass shooting incident from a community news perspective was expected to make the event feel less distant and more connected to audiences' own possible vulnerability.

One possible explanation for the unsupported finding is that the higher level of localization in news reporting may have made the event's actual geographic distance more noticeable, rather than increasing psychological proximity. As stated in the Methodology chapter, before reading the news stimuli, participants were told to assume that the mass shooting incidents occurred outside their state of residence. Under this condition, the community news perspective may have made the event feel anchored in another community rather than psychologically closer to participants themselves. Instead of signaling that the shooting can happen "here," the community news perspective may have signaled that it happened "there," in a specific community outside the participants' own state. This interpretation is consistent with research suggesting that geographic distance remains consequential in how audiences perceive risk and respond to crises (e.g., B. J. Newman & Hartman, 2019; Zhang et al., 2022). Although

concrete localized information may have made the event more vivid, it did not necessarily override participants' awareness that the shooting occurred outside their own state.

By contrast, the national news perspective may have reduced psychological distance through perceived ubiquity rather than concrete local relevance. National news often emphasizes the broader significance and country-level implications of an issue, whereas community news tends to stress its relevance to local residents' everyday lives (Carra, 2025). In the context of mass shootings, framing the incident as part of a national crisis or recurring American public-safety problem may make the risk feel less confined to one distant community and more likely to emerge anywhere, including near audiences. Prior research on mass shooting coverage suggests that national outlets often place individual shootings within broader debates about guns, public safety, policy, and social conditions (Emelu, 2023; Holody & Shaughnessy, 2020; LaRose et al., 2021). In this sense, although national reporting reflects a higher-level construal, it may sometimes make mass shootings feel psychologically closer by presenting them as part of a widespread national problem rather than as an isolated local event.

When "Anywhere" Feels Closer Than "There". A second unexpected finding further complicates the expected relationship between localization in news reporting and psychological proximity. H5c examined whether localization in news reporting and responsibility framing would interact to influence psychological proximity, and this interaction was statistically significant. Psychological proximity was highest in the structural-level responsibility framing and national news perspective condition, and this condition produced significantly higher psychological proximity than both the structural-level responsibility framing and community news perspective condition ($M = 6.09$ vs. $M = 5.70$, $p = .006$) and the individual-level responsibility framing and national news perspective condition ($M = 6.09$ vs. $M = 5.76$, p

= .029). Thus, although H5c received partial support at the interaction level, the observed pattern did not follow the predicted direction. Psychological proximity was not highest when the message combined individual-level responsibility framing with a community news perspective. Instead, it was highest when the message combined structural-level responsibility framing with a national news perspective.

This finding is especially notable because it reverses the expectation derived from Construal-Level Theory (Gouseti & Jackson, 2015). A community news perspective was expected to function as a lower-level construal by making the incident more concrete, specific, and community-based. By contrast, national news perspective and structural-level responsibility framing were expected to represent a higher-level construal by emphasizing broader social, institutional, and policy conditions. However, in the present study, this broader framing combination appeared to make the mass shooting issue feel more psychologically proximate. One possible explanation is that the combination of structural-level responsibility framing and national news perspective presented the shooting not as an isolated tragedy in one distant community, but as part of a recurring national public-safety problem. In this sense, national news perspective may have made the issue feel closer through perceived ubiquity rather than through concrete local detail.

This interpretation is consistent with research showing that national mass shooting coverage often connects specific incidents to broader debates about guns, public safety, policy, and social conditions (Emelu, 2023; Holody & Shaughnessy, 2022; LaRose et al., 2021). When a mass shooting is framed as evidence of systemic failure or a recurring national issue, audiences may be less likely to view the incident as limited to one specific community. Instead, they may interpret it as part of a broader pattern of violence that could occur across many public settings.

In this way, the combination of structural-level responsibility framing and national news perspective may have increased psychological proximity not by making the event geographically local, but by making it seem nationally widespread and relevant to public safety across communities. This finding suggests that, in the context of mass shootings, psychological proximity may be produced not only through concrete local details but also when national news perspective is combined with structural-level responsibility framing, making the issue appear recurring, national in scope, and connected to broader social and policy conditions.

National News and the Amplification of Anger. A third unexpected finding concerned the discrete emotion of anger. Although the hypothesized effect of content structures on anger was not significant, localization in news reporting also showed a significant effect, which had not been specified in the hypotheses. Participants in the national news perspective condition reported significantly higher anger than participants in the community news perspective condition (M = 3.87 vs. M = 3.55, p = .043). This finding suggests that national news perspective may have encouraged participants to interpret the mass shooting issue less as a tragedy confined to one specific community and more as a broader public problem.

This result is consistent with the idea that a higher-level construal of crime could direct attention toward broader and more abstract social conditions, such as inequality, social exclusion, hate, or other macro-level factors (Gouseti & Jackson, 2015). In the context of the current study, the national news perspective may have shifted attention away from the specific community where the shooting occurred and toward mass shootings as a broader national public-safety issue. Such a shift may be especially relevant to anger because anger is often associated with perceptions of blame and injustice, especially when people believe that a harmful event could have been avoided or better addressed (S. Lee & Lang, 2009; Nabi, 2010). Prior research

suggests that anger is more likely to emerge when people identify responsible actors or institutions for a negative event, perceive the situation as unjust, or understand the issue as a shared public grievance rather than a private misfortune (Valentino et al., 2011; Wagner, 2014; Wlodarczyk et al., 2017).

From this perspective, national news perspective may have heightened anger because it made mass shooting violence appear connected to broader failures in public safety, policy, and social conditions. Whereas a community news perspective may have emphasized the concrete harm experienced by a particular community, a national news perspective may have encouraged participants to interpret the shooting as part of a recurring national issue for which broader social or institutional responsibility would be considered. This interpretation also aligns with research showing that national mass shooting coverage often connects specific incidents to broader debates about guns, public safety, policy, and social conditions (Emelu, 2023; Holody & Shaughnessy, 2022; LaRose et al., 2021). Thus, national news perspective may have increased anger not simply by making the event more abstract, but by situating the shooting within broader national debates about public safety, policy, and social responsibility.

From Psychological Proximity to Fear of Crime and Civic Engagement. Another important set of findings supported the theoretical importance of psychological proximity. H4b predicted that greater psychological proximity to the covered mass shooting violence would be associated with higher fear of crime, and this hypothesis was supported across all three message variants. Psychological proximity was positively associated with fear of crime for the grocery shooting message ($b = 0.50$, $p < .001$), the high school shooting message ($b = 0.48$, $p < .001$), and the music festival shooting message ($b = 0.43$, $p < .001$), controlling for localization in news reporting. H4d was also supported. Psychological proximity was positively associated with civic

engagement intentions for the grocery shooting message ($b = 0.20$, $p < .001$), the high school shooting message ($b = 0.19$, $p < .001$), and the music festival shooting message ($b = 0.21$, $p < .001$), again controlling for localization in news reporting.

These findings are consistent with research suggesting that psychological proximity could make crime-related risk feel more concrete and personally relevant. When crime is perceived as occurring nearby, soon, or to people similar to oneself, it becomes easier for individuals to map the possibility of harm onto their own environment (Gouseti & Jackson, 2015). In the context of the present study, participants who felt psychologically closer to the covered mass shooting incidents may have been more likely to imagine such violence as possible in familiar public settings, which could help explain their higher fear of crime. This interpretation is consistent with research showing that when violence or crime-related risk feels psychologically close, people tend to perceive greater danger, become more concerned about victimization, and report stronger fear of crime (Gouseti & Jackson, 2015; Huddy et al., 2005, 2007; B. J. Newman & Hartman, 2019).

The positive association between psychological proximity and civic engagement intentions also supports the idea that feeling closer to a public issue could encourage more outward-looking responses. Civic engagement involves moving beyond one's private circle and taking part in public or community life in ways that contribute to collective well-being (Adler & Goggin, 2005; Amnå, 2012; Lister, 2007; Zaff et al., 2010). From a Construal-Level Theory perspective, psychological proximity could direct attention toward concrete, means-oriented responses, or the specific steps people can take to address a problem (Liviatan et al., 2008). Applied to the present study, participants who felt closer to the covered mass shooting violence may have been more inclined to consider civic engagement in community affairs, especially

actions related to addressing gun violence or broader local crime issues, such as supporting prevention efforts, policy responses, or community safety initiatives. Overall, these findings underscore the theoretical importance of psychological proximity by showing that geographically distant mass shooting incidents could still be associated with stronger fear of crime and civic engagement intentions when audiences perceive the violence as psychologically closer.

5.1.4. The Complexity of Interactions: Vividness Versus Abstraction

The interaction hypotheses tested whether the three message attributes examined in this study—responsibility framing, content structures, and localization in news reporting—operated independently or combined with one another in more complex ways. Some of these hypotheses were based on the expectation that message attributes directing attention to a more concrete, case-based understanding of mass shootings would reinforce one another. For example, individual-level responsibility framing was expected to direct attention toward specific actors, personal circumstances, and individualized causes or solutions, whereas community news perspective was expected to emphasize the affected community and local residents. By contrast, structural-level responsibility framing emphasized broader social, institutional, and policy conditions, while national news perspective situated the incident within a wider national context. Hence, the interaction hypotheses examined whether message attributes would strengthen one another when they directed attention toward similar levels of interpretation, or whether combining them would produce more complicated and outcome-specific effects.

A Limited Narrative Engagement Interaction. Among the interaction hypotheses, one limited pattern emerged for narrative engagement. H7a predicted that localization in news reporting and responsibility framing would interact to influence narrative engagement, and this interaction was statistically significant. However, Bonferroni-adjusted pairwise comparisons

among the four conditions formed by localization in news reporting and responsibility framing showed that no pairwise differences reached statistical significance. Descriptively, narrative engagement was highest in the individual-level responsibility framing and community news perspective condition ($M = 5.46$) and lowest in the structural-level responsibility framing and community news perspective condition ($M = 5.20$). The largest pairwise difference was between these two community news perspective conditions, but this difference was not statistically significant after Bonferroni adjustment. Thus, H7a received limited support at the interaction level, and the hypothesized pattern was descriptively observed but not confirmed by Bonferroni-adjusted pairwise comparisons.

This descriptive pattern is still theoretically suggestive, but it should be interpreted cautiously. The highest narrative engagement mean appeared when individual-level responsibility framing was paired with a community news perspective. Community news perspective may have directed attention to a specific affected community, while individual-level responsibility framing may have directed attention to concrete actors, personal circumstances, and individual-level explanations. Together, these features may have made the mass shooting news message easier for participants to follow as a concrete, case-based account. However, because the Bonferroni-adjusted pairwise comparisons were not statistically significant, this interpretation should be treated as tentative rather than as evidence of a reliable condition-specific difference.

This descriptive tendency is broadly consistent with responsibility-framing research suggesting that individual-level responsibility framing tends to make social problems more vivid and accessible by focusing attention on specific people, personal circumstances, and individualized causes or solutions rather than broader structural conditions (Iyengar, 1991, 1996;

Ryan, 1973; Wikler, 2002). In the context of mass shooting news, such individual-level responsibility framing may direct attention toward the shooter's personal deficiencies, mental health problems, grievances, or individual actions, which are commonly emphasized in media explanations of mass shootings (Hansen, 2023; Holody & Shaughnessy, 2022; Pyne, 2017; Schnell & Callaghan, 2005).

The descriptive pattern is also compatible with Construal-Level Theory, which suggests that the lower-level construal involves more concrete, context-specific details and could make distant events feel more immediate and easier to imagine (Gouseti & Jackson, 2015). In the present study, the community news perspective may have operated in this way by directing attention to a specific affected community and local residents. However, because the follow-up comparisons were not significant, the results do not provide strong evidence that pairing individual-level responsibility framing with a community news perspective reliably increased narrative engagement.

The corresponding interactions were not statistically significant for anger, fear, or hopefulness; therefore, H7b through H7d were not supported as two-way interaction hypotheses. Overall, the H7a result suggests that vivid and concrete cues may be relevant to narrative engagement, but their effects did not produce statistically significant pairwise differences after Bonferroni adjustment and did not extend to discrete emotional responses.

When Message Attributes Matter Differently. Moreover, the H5c finding adds another layer to the interaction results. As discussed earlier, psychological proximity was highest when structural-level responsibility framing was combined with a national news perspective, rather than when individual-level responsibility framing was combined with a community news perspective. When considered alongside the H7a finding, this result suggests that different

combinations of message attributes were relevant for different outcomes, although the follow-up evidence was stronger for psychological proximity than for narrative engagement. Individual-level responsibility framing combined with a community news perspective was descriptively associated with the highest narrative engagement, although the Bonferroni-adjusted pairwise comparison was not statistically significant. By contrast, structural-level responsibility framing combined with a national news perspective was associated with the highest psychological proximity and yielded statistically significant pairwise differences. In this sense, concrete case-based cues may be more relevant for narrative engagement, while broader national and structural cues may make the issue feel more widespread and psychologically close. These findings suggest that the interaction effects were outcome-specific and should be interpreted according to the strength of their follow-up evidence.

Nuanced Interactions Related to Civic Engagement. A cautious interaction finding emerged for civic engagement intentions. H5e predicted that responsibility framing and localization in news reporting would interact in their association with civic engagement intentions, with the highest civic engagement intentions expected when individual-level responsibility framing was combined with a community news perspective. The interaction between responsibility framing and localization in news reporting was statistically significant. However, pairwise comparisons did not identify any statistically significant differences among the four combined conditions. Thus, H5e received partial support at the interaction level.

Descriptively, the observed pattern differed from the predicted direction. Civic engagement intentions were highest when structural-level responsibility framing was combined with a national news perspective ($M = 5.19$) and lowest when individual-level responsibility framing was combined with a national news perspective ($M = 4.91$). The largest pairwise

difference was between these two national news perspective conditions, but this difference was not statistically significant after Bonferroni adjustment. Taken together, the H5e results suggest that civic engagement intentions were not entirely independent of the way responsibility framing and localization in news reporting were combined. Nevertheless, because the follow-up comparisons did not reveal significant differences among the four combined conditions, this finding should be interpreted with caution. It supports the broader conclusion that interaction effects appeared in some cases, but they did not yield consistent or readily interpretable differences across outcomes.

The Limited Reach of Two-Way Interactions. Beyond the limited interaction findings discussed above, most two-way interaction hypotheses were not supported. The predicted interactions between content structures and responsibility framing were not statistically significant for responsibility attributions, narrative engagement, discrete emotions, fear of crime, psychological proximity, or civic engagement intentions; therefore, H3a through H3f and H8a through H8c were not supported. Similarly, the predicted interactions between localization in news reporting and content structures were not statistically significant across the major outcomes examined; therefore, H6a through H6i were not supported. The remaining hypotheses involving localization in news reporting and responsibility framing also failed to receive support, including H5a, H5b, H5d, and H7b through H7d.

Therefore, these unsupported findings suggest that combining two message attributes did not automatically produce stronger or more consistent audience responses. For example, narrative content structure did not interact significantly with individual-level responsibility framing to strengthen responsibility attributions or discrete emotions. Similarly, a local news perspective did not interact significantly with narrative content structure to increase narrative

engagement or discrete emotions. In this sense, the results do not suggest that combining two vivid or concrete message attributes automatically produces stronger audience responses.

Narrative content structure, individual-level responsibility framing, and a local news perspective each offered a more vivid or concrete way of presenting the incident, but their combinations did not consistently produce the expected differences across responsibility attributions, narrative engagement, discrete emotions, psychological proximity, fear of crime, or civic engagement intentions. Instead, the findings suggest that vividness and concreteness mattered only under certain conditions and for certain outcomes. More broadly, responsibility framing, content structures, and localization in news reporting appeared to be related to outcomes in more outcome-specific ways, which may explain why only a small number of interaction hypotheses received partial support while most two-way combinations did not yield statistically significant or readily interpretable differences.

The Limits of Three-Way Message Combinations. The three-way interaction hypotheses provided even less consistent support than the two-way interaction hypotheses. H9a and H9b, which predicted three-way interactions for causal and treatment responsibility attributions, were not supported. H9c, H9e, H9g, H9h, and H9i were also not supported for narrative engagement, fear, psychological proximity, fear of crime, and civic engagement intentions. Thus, for most outcomes, the combined influence of responsibility framing, content structures, and localization in news reporting did not produce statistically significant three-way interaction effects.

The only limited support appeared for anger and hopefulness. The three-way interactions among responsibility framing, content structures, and localization in news reporting were statistically significant for both anger and hopefulness. However, in both cases, Bonferroni-

adjusted pairwise comparisons did not identify statistically significant differences among the eight combined conditions, and the descriptive patterns did not confirm the predicted directions. Thus, H9d and H9f received limited support at the interaction level, while the hypothesized interaction patterns were not confirmed.

Taken together, these findings suggest that combining all three message attributes did not produce clear or easily interpretable differences in audience responses. One possible interpretation is that responsibility framing, content structures, and localization in news reporting may direct attention to different aspects of a mass shooting news message. Responsibility framing could guide how audiences think about causes and solutions, content structures could affect how the message is organized and experienced, and localization in news reporting could change the reporting perspective from which the incident is presented. When all three attributes are combined, their effects may not simply build on one another. Instead, they may create competing cues that make audience responses less predictable.

These complex message combinations remain important. The findings suggest that their effects are difficult to isolate and may depend heavily on the specific outcome being examined. The limited support for H9d and H9f shows that three-way combinations may matter in some cases, especially for discrete emotions, but the lack of significant pairwise differences prevents strong conclusions about which exact combinations were most influential. Overall, the three-way interaction results reinforce the broader conclusion that message attributes did not combine in a straightforward cumulative way.

5.1.5. Mediated Message Evaluation

Newsworthiness Through a Macro-Level Lens. The newsworthiness findings suggest that participants evaluated mass shooting news differently depending on how responsibility

framing and localization in news reporting were combined. RQ1b asked whether responsibility framing, content structures, and localization in news reporting would interact in their association with perceived newsworthiness, but the specified three-way interaction was not statistically significant. The between-subjects results, however, showed two significant two-way interactions: one between responsibility framing and content structures, and one between responsibility framing and localization in news reporting. These two interactions differed in their follow-up results. For the interaction between responsibility framing and content structures, Bonferroni-adjusted pairwise comparisons did not identify any statistically significant differences among the four combined conditions. By contrast, the interaction between responsibility framing and localization in news reporting yielded one significant pairwise difference. Participants in the structural-level responsibility framing and national news perspective condition reported significantly higher perceived newsworthiness than participants in the structural-level responsibility framing and community news perspective condition ($M = 5.98$ vs. $M = 5.69$, $p = .046$). No other Bonferroni-adjusted pairwise comparisons reached statistical significance.

One possible explanation is that the combination of structural-level responsibility framing and a national news perspective may have made the story appear more consequential. Structural-level responsibility framing drew attention to broader social, institutional, and policy conditions (Iyengar, 1989, 1991, 1996), while the national news perspective placed the mass shooting within a wider public context (Gouseti & Jackson, 2015). Taken together, these features may have made the incident seem less like a single community event and more like an issue of broader public concern (e.g., Emelu, 2023; Holody & Shaughnessy, 2020; LaRose et al., 2021). This interpretation is consistent with news values research suggesting that news messages are often perceived as more newsworthy when they involve broader impact, social consequence,

public relevance, and societal importance (Galtung & Ruge, 1965; Harcup & O'Neill, 2017; Shoemaker et al., 1987). From this perspective, the structural-level responsibility framing and national news perspective condition may have carried a stronger sense of public importance because it connected the shooting to larger questions about public safety, policy, and social conditions.

This finding is also consistent with the idea that audiences may distinguish between local relevance and broader societal importance when evaluating news. A community news perspective may make a story feel more closely tied to the affected community, but a national news perspective may make the same issue appear more consequential for the country as a whole. In the present study, this distinction may help explain why structural-level responsibility framing was perceived as more newsworthy when paired with a national news perspective than when paired with a community news perspective. Rather than suggesting that community-based coverage lacks news value, this finding suggests that audiences may view structural-level explanations of mass shootings as especially newsworthy when those explanations are presented within a national context.

Complex but Inconclusive Patterns for Credibility and Quality. The findings for perceived news credibility and news quality were more complex but less conclusive than the findings for perceived newsworthiness. RQ1a asked whether the interaction among responsibility framing, content structures, and localization in news reporting would be associated with perceived news credibility. This three-way interaction was not statistically significant. Although an interaction among message variance, responsibility framing, and content structures was statistically significant, follow-up analyses showed that the interaction between responsibility framing and content structures was not statistically significant within any of the three message

variants. Thus, RQ1a was not supported, and the additional interaction involving message variance did not provide clear evidence that perceived news credibility differed meaningfully across specific combinations of message attributes.

The findings for perceived overall news quality were also inconclusive. RQ1c asked whether the interaction among responsibility framing, content structures, and localization in news reporting would be associated with perceived news quality, but the specified three-way interaction was not statistically significant. The between-subjects results showed significant two-way interactions between responsibility framing and content structures and between responsibility framing and localization in news reporting. However, Bonferroni-adjusted pairwise comparisons did not identify statistically significant differences for either interaction. For the interaction between responsibility framing and content structures, perceived overall news quality was descriptively highest in the individual-level responsibility framing and narrative condition ($M = 5.51$) and lowest in the individual-level responsibility framing and non-narrative condition ($M = 5.31$), but this difference was not statistically significant after Bonferroni adjustment.

For the interaction between responsibility framing and localization in news reporting, perceived overall news quality was descriptively highest in the structural-level responsibility framing and national news perspective condition ($M = 5.56$) and lowest in the structural-level responsibility framing and community news perspective condition ($M = 5.26$), but this difference was also not statistically significant after Bonferroni adjustment. Thus, although perceived overall news quality was related to significant two-way interactions, the follow-up comparisons provided only limited evidence of differences across the combined experimental conditions. The descriptive pattern is consistent with the possibility that narrative structure and national news

perspective may contribute to higher perceived quality under certain framing conditions, but the non-significant follow-up comparisons mean this interpretation should remain tentative.

Together, these findings suggest that perceived news credibility and quality were not clearly influenced by the full combination of responsibility framing, content structures, and localization in news reporting. Unlike perceived newsworthiness, which showed one significant follow-up difference for the combination of structural-level responsibility framing and national news perspective, perceived news credibility and quality did not have clear pairwise differences among the combined conditions. This may suggest that participants' evaluations of news credibility and quality were less clearly tied to specific combinations of responsibility framing, content structures, and localization in news reporting than their evaluations of newsworthiness. Therefore, RQ1a and RQ1c were not supported by the specified three-way interactions, and the significant lower-order interactions should be interpreted as limited and inconclusive.

5.1.6. Contextual Nuance: The Role of Message Variance

The findings related to message variance suggest that the setting of the mass shooting incident mattered for some audience responses. Narrative engagement differed significantly across the three message variants. Bonferroni-adjusted pairwise comparisons showed that narrative engagement was significantly higher for the high school message than for the music festival message ($M = 5.36$ vs. $M = 5.29$, $p = .004$). The grocery store message did not differ significantly from either the high school or music festival message. None of the interactions involving message variance were statistically significant, suggesting that the effects of responsibility framing, content structures, and localization in news reporting on narrative engagement did not vary significantly across the three message topics.

Anger also varied by message variance. The main effect of message variance was statistically significant. Bonferroni-adjusted pairwise comparisons showed that anger was significantly higher for the high school message than for both the grocery store message (M = 3.79 vs. M = 3.68, p = .032) and the music festival message (M = 3.79 vs. M = 3.66, p = .014). The grocery store and music festival messages did not differ significantly from one another. In addition, localization in news reporting had a significant main effect on anger, with participants in the national news perspective condition reporting higher anger than those in the community news perspective condition (M = 3.87 vs. M = 3.55, p = .043).

Thus, the high school message may have generated higher narrative engagement and anger, compared to other message variants. One possible interpretation is that the high school setting carried a distinctive moral and emotional weight (Warnick et al., 2010). Schools are commonly understood as spaces where children and adolescents should be protected. When violence occurs in this setting, the event may be perceived not only as an act of public violence but also as a violation of a core social expectation surrounding the safety of young people. This interpretation is consistent with recent research showing that references to highly vulnerable victims, including children, could heighten moral outrage, as well as work on iconic child victims showing that concrete representations of harm to children could draw strong emotional attention (Grigoreva Crean, 2025; Slovic et al., 2017). It also aligns with Jasper and Poulsen's (1995) argument that emotionally powerful information could generate outrage when audiences perceive it as violating core moral expectations. Applied to the present study, the high school message may have made the violence feel especially troubling because the setting implied harm to a highly vulnerable group in a place associated with care, learning, and protection. This may

help explain why the high school message generated stronger anger than both other message variants and higher narrative engagement than the music festival message.

The findings for psychological proximity point to a different kind of contextual effect. The main effect of message variance was statistically significant. Bonferroni-adjusted pairwise comparisons showed that psychological proximity was significantly higher for the grocery store message than for the music festival message ($M = 5.90$ vs. $M = 5.83$, $p = .013$). The high school message did not differ significantly from either the grocery store or music festival message, and the interactions involving message variance were not statistically significant. This result may be understood through the spatial dimension of psychological proximity.

As Gouseti and Jackson (2015) explain, psychological proximity may increase when a crime is mentally represented as occurring in familiar or regularly visited places rather than distant or abstract locations. A grocery store is an ordinary public space that many people visit as part of everyday life. Compared with a music festival, which may feel more occasional or event-specific, a grocery store may be more ready for participants to connect to their own routines. In this sense, the grocery store message may have increased psychological proximity by placing mass shooting violence in a setting that felt familiar, routine, and widely shared.

Taken together, these findings suggest that message setting was not simply a background feature of the stimuli. The high school setting may have been more relevant to anger and narrative engagement, whereas the grocery store setting may have been more relevant to psychological proximity. At the same time, these effects should be interpreted cautiously. The effect sizes were small, the significant differences appeared only for specific pairwise comparisons, and message variance did not consistently interact with responsibility framing, content structures, or localization in news reporting. Thus, the results suggest that the substantive

setting of a mass shooting incident could matter, but its influence depends on the specific audience response being examined.

5.2. Theoretical and Practical Implications

5.2.1. Theoretical Contributions

This study adds to media effects research by clarifying how responsibility framing, content structure, and localization in news reporting are associated with audience responses to mass shooting news. Overall, the results suggest that these message features do not influence audiences in a simple or uniformly predictable way. Instead, their effects were selective and outcome-specific. Responsibility framing was most clearly related to individual-level causal and treatment responsibility attributions; narrative content structure was most clearly related to narrative engagement, the discrete emotion of fear, and fear of crime; and psychological proximity was consistently associated with fear of crime and civic engagement intentions. Meanwhile, many of the hypothesized interaction effects and mediation paths were not supported. These findings refine the theories applied in the present study by identifying their boundary conditions: they show where the theories' explanatory power is strongest and where their assumptions may require adjustment in the context of U.S. mass shooting coverage.

First, the study provides partial support for Framing Theory by showing that individual-level responsibility framing could direct audiences toward individual-level understandings of the mass shooting issue. Participants exposed to individual-level responsibility framing reported stronger individual-level causal and treatment responsibility attributions than those exposed to structural-level responsibility framing. This finding is consistent with Iyengar's (1991, 1996) work showing that news framing could influence how audiences assign responsibility for social issues. When news messages emphasize personal characteristics, individual actions, or isolated

cases, audiences may become more likely to interpret social issues through individual-level causes and solutions rather than broader social conditions (e.g., Ben-Porath & Shaker, 2010; Feezell et al., 2019; Iyengar, 1996; S.-H. Kim et al., 2012). In the present study, messages emphasizing the shooter's personal characteristics, mental health problems, grievances, and individual protective actions made participants more likely to understand mass shootings through an individual-level lens.

However, the findings also complicate the concept of responsibility framing because structural-level responsibility framing did not significantly increase structural-level causal or treatment attributions. This asymmetry suggests that individual-level explanations may be especially accessible in the U.S. mass shooting context, where public discourse around gun violence is closely connected to cultural values of individualism, personal freedom, self-reliance, and resistance to government intervention (Carlson, 2015; Cook & Goss, 2014; Melzer, 2009; Schwartz, 2022; Warner & Ratcliff, 2021). In this context, the persuasive threshold for structural-level explanations may be higher than that for individual-level explanations. In the present study, simply mentioning broader societal factors, such as high-risk access to firearms, economic deprivation, or social disorganization, may not have been enough to shift audiences toward structural-level responsibility attributions regarding mass shooting violence. Theoretically, this suggests that responsibility framing effects depend not only on the content of a message but also on the cultural and political environment in which audiences interpret that message (e.g., Aarøe, 2011; Boukes, 2022; Scheufele & Iyengar, 2012).

Second, the study provides clear support for Transportation Theory in digital news environments. Narrative news messages produced significantly higher narrative engagement than non-narrative messages, suggesting that story-like news formats tend to draw audiences more

deeply into mass shooting coverage. Narrative news messages also produced significantly higher levels of the discrete emotion of fear, as well as higher fear of crime, than non-narrative messages. These results support the idea that narratives increase audience involvement by sustaining attention, encouraging vivid mental imagery, and connecting audiences emotionally to the people and events represented in the story (M. C. Green, 2021; M. C. Green & Fitzgerald, 2017). In the context of mass shooting news, narrative accounts featuring victims, witnesses, officials, and vivid descriptions of the unfolding violence may make the event feel especially concrete, immediate, and emotionally consequential.

At the same time, the findings refine Transportation Theory by showing that narrative effects were selective rather than universal. Narrative messages increased fear, but they did not significantly increase anger or hopefulness. This suggests that transportation does not necessarily intensify every emotional response. In mass shooting coverage, narrative content structure may be especially effective at heightening fear because the topic involves sudden, fatal violence in familiar public settings. This interpretation is consistent with research suggesting that narratives could increase risk perception and fear by heightening negative affect and making risks feel more personally salient (McQueen et al., 2011).

Anger, by contrast, may require a clearer target of blame because it is closely related to perceptions of blame, injustice, and preventability (S. Lee & Lang, 2009; Nabi, 2010; Valentino et al., 2011). In the present study, narrative descriptions of victims, witnesses, and unfolding violence may not have produced a consistent anger response because anger could have been directed toward multiple targets, including the shooter, gun policies, mental health systems, social conditions, or public institutions. Hopefulness may be even more difficult to generate in a news context dominated by severe harm and vulnerability. Thus, the study supports

Transportation Theory while also suggesting that its emotional implications should be specified more carefully across specific discrete emotions and issue contexts.

Third, the study challenges the application of Construal-Level Theory to localization in news reporting. The study expected that a community news perspective would function as a lower-level construal by providing concrete, localized details about the affected community, victims, residents, and local consequences. Based on Construal-Level Theory, this type of reporting, with higher level of localization, was expected to make a geographically distant event feel psychologically closer (Gouseti & Jackson, 2015). However, localization in news reporting did not significantly increase psychological proximity. The mediation models were also unsupported because localization did not increase psychological proximity, although psychological proximity itself was positively associated with both fear of crime and civic engagement intentions.

This unexpected finding suggests that local information does not necessarily produce psychological closeness when the event is explicitly located outside the audience's state of residence. That is, the community news perspective may not have been perceived as local to participants. In this study, participants were told that the mass shooting incidents occurred outside their state. Under this condition, community-focused details may have made the event feel anchored in another specific community rather than closer to the participants themselves. Participants may have perceived the event as something that "could happen there" in a specific community, rather than something that "could happen in my community." In this sense, reporting with a higher level of localization may have signaled "this happen there" rather than "this could happen here." This distinction is theoretically important because it suggests that localized

information may not always increase psychological proximity. A message can provide vivid community-level details while still reinforcing the sense that the event belongs to another place.

This interpretation is also consistent with research suggesting that geographic distance continues to matter in how audiences perceive risk and respond to crises (B. J. Newman & Hartman, 2019; Zhang et al., 2022). The interaction between responsibility framing and localization in news reporting adds another layer to this challenge for Construal-Level Theory. Psychological proximity was highest when structural-level responsibility framing was combined with a national news perspective. This result was the opposite of the predicted lower-level construal effect. One possible explanation is that the combination of national news perspective and structural-level responsibility framing made the mass shooting appear less like an isolated local tragedy and more like part of a recurring national public-safety problem. While the national news perspective situated the incident within a broader national context and emphasized its country-level implications (Carra, 2025), structural-level responsibility framing directed attention to wider social, institutional, and policy conditions surrounding mass shooting violence (Feezell et al., 2019). Together, these cues may have brought the issue psychologically closer through perceived ubiquity by presenting mass shooting violence as a recurring risk with relevance beyond the specific community where the incident occurred. This interpretation aligns with research showing that national mass shooting coverage often situates specific incidents within wider debates about guns, public safety, policy, and social conditions (Emelu, 2023; Holody & Shaughnessy, 2020; LaRose et al., 2021).

The study, therefore, contributes to research on Construal-Level Theory of psychological proximity by showing that psychological proximity remains theoretically important, even though localization did not produce it as expected. Across the grocery, high school, and music festival

message variants, psychological proximity was positively associated with fear of crime and civic engagement intentions. This finding is consistent with the argument that crime-related risk feels more personally relevant when individuals imagine it as occurring nearby, soon, to people similar to themselves, or in familiar everyday settings (Gouseti & Jackson, 2015; Jackson, 2006). It also aligns with research suggesting that psychologically close risks could produce stronger perceived danger, concern about victimization, and fear-related responses (Gouseti & Jackson, 2015; Huddy et al., 2005, 2007; B. J. Newman & Hartman, 2019). The issue, then, becomes how news messages produce psychological proximity. In mass shooting news, a national news perspective combined with structural-level responsibility framing may sometimes be more powerful in making the issue appear widespread, recurring, and socially consequential.

Finally, the findings show that message features did not combine in a straightforward additive way. Most two-way and three-way interaction hypotheses were not supported, and some statistically significant interactions did not yield clear pairwise differences. This suggests that responsibility framing, content structures, and localization in news reporting do not automatically reinforce one another. Instead, different message features appear to matter for different outcomes, and the strength of evidence differed across those outcomes. Individual-level responsibility framing combined with a community news perspective was descriptively associated with the highest narrative engagement, but the follow-up comparison did not reach statistical significance after Bonferroni adjustment. By contrast, structural-level responsibility framing combined with a national news perspective produced the highest psychological proximity and yielded significant pairwise differences.

This distinction suggests that concrete case-based cues may be relevant for narrative engagement, whereas a national news perspective combined with structural-level responsibility

framing may be more clearly relevant for perceived closeness and for presenting mass shootings as a recurring national public-safety issue. For theory building, these findings suggest that scholars need to examine not only whether messages are localized, narrative, or presented through a structural-level lens, but also which specific audience response each feature is expected to influence and whether follow-up comparisons support the observed interaction pattern.

5.2.2. Journalistic Practice and Ethics

The findings also carry important implications for journalistic practice, especially for journalists covering mass shootings and other forms of public violence. Because news coverage could influence how audiences assign responsibility for the issue, become emotionally engaged with the message, and evaluate the broader social significance of violence, journalists need to recognize that choices about responsibility framing, content structures, and localization in news reporting could influence audience responses. Choices about whether to use narrative structure, individual or structural-level responsibility framing, and community or national perspective can shape how audiences emotionally and cognitively respond to mass shooting news.

First, the finding that individual-level responsibility framing increased individual-level causal and treatment attributions suggests that journalists should be cautious about overreliance on individual explanations. Coverage that emphasizes the shooter's personal background, mental health, grievances, motives, or deviance may make mass shootings easier to understand as the result of individual pathology or personal failure. This concern is consistent with research showing that individualized or human-interest-oriented news could direct attention away from broader political, institutional, and structural conditions (Bennett, 1996; Boukes, 2022; Eide, 2017; Iyengar, 1991). While individual-level details may be relevant, they could also narrow

public attention to individual blame and immediate protective responses. This is especially important because structural-level responsibility framing did not significantly increase structural-level responsibility attributions in the present study. If journalists aim to help audiences understand mass shootings as connected to broader social, institutional, or policy conditions, structural-level context likely needs to be more explicit, concrete, and maybe event-specific.

This does not mean that journalists should avoid reporting individual details altogether. Rather, the implication is that individual-level elements should not become the default explanatory center of mass shooting coverage. An imbalanced focus on individual-level responsibility attributions could stigmatize certain groups, including people with mental illness in the context of the present study, by implicitly blaming them for causing or experiencing the issues covered by news media (e.g., Frederick et al., 2016; Iyengar, 1991; McGinty et al., 2013; Puhl & Brownell, 2003; Weiner, 2006). Journalists could reduce the risk of individualized blame by clearly connecting the specific incident to broader conditions, such as social disorganization and economic deprivation. In turn, coverage that aims to address the structural-level dimensions of mass shootings may need to do more than mention broad social or policy conditions; instead, it should clearly connect those conditions to the specific incident, case-specific details, and proposed solutions.

Second, the study's findings raise ethical concerns about narrative reporting. Narrative content structure increased narrative engagement, the discrete emotion of fear, and fear of crime. This suggests that narrative reporting can be powerful: it could make mass shooting news more compelling, emotionally immediate, and memorable. However, that same power also raises an ethical concern: when narratives vividly describe victims, witnesses, fear, chaos, and unfolding violence, they may intensify not only concern about the specific incident but also broader fear

about everyday safety. This implication is consistent with research showing that exposure to crime news could increase fear of crime and perceptions of environmental danger (Callanan, 2012; Näsi et al., 2020; L. Shi, 2018; C. Silva & Guedes, 2022; Smolej & Kivivuori, 2006). In this way, narrative reporting may contribute to heightened fear of crime, especially when mass shootings are represented as unpredictable threats in familiar public spaces.

Journalists, therefore, face a difficult balance. Narrative reporting could humanize victims, convey the seriousness of harm, and help audiences understand the lived consequences of violence. But if it relies heavily on frightening scenes, dramatic descriptions, and individualized accounts of terror, it may amplify public fear without necessarily improving structural-level understanding. The ethical question is, then, how journalists should use narrative content structure. Consistent with journalism ethics principles of minimizing harm, narrative coverage should avoid sensationalizing violence, overemphasizing danger, or turning fear into the central organizing logic of the story (Society of Professional Journalists, 2014). More constructive narrative approaches might foreground survivor experiences, community recovery, prevention efforts, institutional accountability, and evidence-based solutions, rather than only the most frightening details of the attack (McIntyre, 2017).

Third, the findings suggest that current narrative reporting styles may unintentionally hinder structural-level understanding when they combine emotionally vivid storytelling with individual-level explanations. Narrative structure increased engagement and fear, while individual-level responsibility framing increased individual attributions. Thus, these findings raise a potential ethical concern for journalistic practice: highly engaging stories may draw audiences into the event while also encouraging them to understand the issue primarily through individual blame, personal danger, and self-protection. This combination may make coverage

emotionally powerful but limited in its ability to explain the broader conditions behind mass shooting violence. For mass shootings, such reporting may leave audiences more afraid while doing little to help them understand institutional failures, sociopolitical factors, or structural-level remedies related to the issue.

Fourth, the findings about localization in news reporting suggest that journalists should not assume that a community news perspective will automatically make distant audiences feel closer to an event. When an incident occurs outside the audience's state or community, highly localized details may reinforce the idea that the shooting belongs to that particular place. By contrast, national reporting that situates the incident within a broader pattern of gun violence, public safety, and policy debate may make the issue feel more widely relevant. This has practical implications for how journalists frame mass shootings for different audiences. Local details remain important for accuracy, for representing the lived experiences of those directly affected, and for supporting community-centered reporting that fosters a shared sense of community life and advocates for potential social change (Rivas-Rodriguez, 2011; Lowrey et al., 2008). However, when the goal is to communicate broader societal relevance, journalists may need to connect local consequences to national public-safety concerns and societal conditions.

Fifth, the finding that structural-level responsibility framing combined with a national news perspective was associated with higher psychological proximity and perceived newsworthiness suggests that audiences may view structural-level explanations as more meaningful when they are situated within a broader national context. This implication is consistent with news values research suggesting that news messages are often perceived as more newsworthy when they connect a specific event to broader impact, social consequences, public relevance, and societal importance (Galtung & Ruge, 1965; Harcup & O'Neill, 2017; Shoemaker

et al., 1987). In this sense, journalists could place a mass shooting incident within a broader national news perspective and explain how wider social, institutional, and policy conditions are connected to the event. This approach may help audiences understand the shooting not only as an isolated tragedy, but also as part of a broader national public-safety issue. Such reporting may help audiences understand mass shootings as public problems rather than isolated tragedies.

Finally, the limited and inconsistent interaction findings suggest that journalists should not assume that combining vivid message features will automatically produce stronger or more constructive audience responses. Narrative content structure, individual-level responsibility framing, and a higher level of localization in news reporting may each make a story feel more concrete in different ways, but the present findings do not show that combining these features reliably increases narrative engagement, anger, hopefulness, civic engagement, or structural-level understanding. Instead, the findings suggest that journalists should consider how specific story features may affect specific audience responses. Narrative reporting may make mass shooting news more experientially engaging and fear-inducing, and the substantive setting of the incident may also matter. High school mass shooting coverage may carry particular moral and emotional weight, whereas grocery store mass shooting coverage may feel psychologically closer because it takes place in a familiar everyday setting.

Therefore, journalists should use vivid narrative and contextual details carefully, especially when covering highly familiar or morally sensitive settings, because such details may intensify emotional responses without necessarily improving structural-level understanding or civic engagement. For news producers, aligning message features with specific communication goals may be more effective than simply adding more emotional, localized, or personalized

elements. Ethical mass shooting coverage should therefore be guided by a deliberate question: What kind of public understanding does this news story potentially encourage?

Taken together, the findings suggest that journalistic choices in mass shooting coverage may be associated with different audience interpretations of these events, including interpretations of mass shootings as isolated acts of individual violence, threats to personal safety, or broader public problems connected to social conditions and policy-level responses. Narrative content structure could make mass shooting news more engaging, but it could also heighten fear. Individual-level responsibility framing may foster empathy, but it may also reinforce individualized blame. A higher level of localization in news reporting could support community-centered coverage by representing the lived experiences of those directly affected, but it may not necessarily make the issue feel closer to distant audiences. For this reason, journalists need to approach mass shooting coverage with both practical care and ethical awareness, ensuring that vivid storytelling does not come at the expense of structural-level context, public understanding, and responsible communication.

5.3. Limitations and Future Research

5.3.1. Methodological Constraints: The Limits of a Single-Exposure Stimulus

The methodological limitation of the present study concerns the relatively low dosage of the experimental stimulus. H1a and H1b predicted that, compared with individual-level responsibility framing, structural-level responsibility framing would increase structural-level causal and treatment responsibility attributions for mass shooting violence. These hypotheses were not supported. The null findings are unlikely to be explained by obvious problems in data quality or demographic imbalance across conditions. The study recruited participants through CloudResearch Connect, which uses screening procedures designed to reduce inattentive,

fraudulent, or otherwise low-quality responses (Hauser et al., 2022; Kay, 2025; Litman et al., 2021; Robinson et al., 2019). In addition, randomization balance checks indicated that age, gender, race/ethnicity, and political ideology did not differ significantly across the eight experimental conditions. These procedures strengthen confidence in the internal validity of the experiment, but they also highlight an important constraint of the design.

Specifically, a single exposure to a brief, approximately 270-word fictional news article may not have provided enough stimulus strength to shift deeply rooted interpretations of what or who is primarily responsible for causing and alleviating the mass shooting issue. As discussed before, in the U.S., gun ownership and gun violence are embedded in a broader cultural context that emphasizes individualism, personal freedom, civic responsibility, patriotism, and self-reliance (Carlson, 2015; Cook & Goss, 2014; Melzer, 2009; Schwartz, 2022; Warner & Ratcliff, 2021). Within this cultural environment, audiences may already approach mass shooting violence through a familiar individualizing lens that emphasizes personal blame for perpetrators, personal vulnerability among potential victims, and individual rights in debates over prevention and policy intervention.

As a result, even when a news message presents structural-level causes or solutions, a brief single-exposure stimulus may be insufficient to override the more durable cultural frameworks. The nonsignificant effects of structural-level responsibility framing, therefore, should not necessarily be interpreted as evidence that it is ineffective in general. Rather, these nonsignificant effects suggest that short-term, low-dosage exposure may have limited capacity to shift responsibility attributions for an issue shaped by powerful and long-standing cultural assumptions.

5.3.2. Conceptual Complexity of Responsibility Attributions for Mass Shootings

The theoretical limitation concerns the conceptual and measurement complexity of responsibility attributions for mass shooting violence. This study was guided by the distinction between individual-level and structural-level responsibility framing, a distinction that is theoretically meaningful in framing research (Chattoo et al., 2021; Iyengar, 1996; S.-H. Kim, 2015; S.-H. Kim et al., 2010). However, the exploratory Principal Component Analyses (PCAs) suggested that participants' causal and treatment responsibility attributions did not always align neatly with this binary. For causal responsibility attributions, the PCAs for the grocery, high school, and music festival stimuli each extracted three components with eigenvalues greater than 1.00, explaining 72.53%, 73.06%, and 74.35% of the total variance, respectively. These results suggested that participants differentiated among multiple types of causal explanations rather than responding to the items as one unified attribution scale. Accordingly, the items were analyzed as separate conceptually and empirically related measures rather than being combined into a single causal responsibility attribution index.

The causal responsibility attribution PCAs showed that self-defense and armed-security items were grouped together as an individual-level causal responsibility attribution measure, while the social-disorganization and economic-deprivation items were grouped together as a structural-level causal responsibility attribution measure. By contrast, the mental-illness and high-risk-access items were analyzed separately because they did not align cleanly with the two composite measures. The mental-illness item loaded strongly as a separate dimension, suggesting that participants may have treated it as distinct from other individual-level explanations. The high-risk-access item showed cross-loading across components, suggesting that firearm access may have been interpreted as both a structural condition and a source of individual-level risk.

A similar measurement issue emerged for treatment responsibility attributions, although the component structure was somewhat less consistent across message variants. Initial reliability analyses showed low internal consistency for the six-item treatment responsibility attribution scale across the grocery, high school, and music festival messages. The PCAs for grocery message produced a three-component solution explaining 75.82% of the total variance, whereas the high school and music festival messages produced two-component solutions explaining 60.81% and 60.02% of the total variance, respectively. However, the third eigenvalues for the high school and music festival messages were close to 1.00, $\lambda 3 = .96$ and $\lambda 3 = .93$, suggesting that the distinction between two- and three-component solutions was somewhat borderline and partly sensitive to the eigenvalue-greater-than-one criterion.

Across the three treatment responsibility attribution PCAs, the most consistent empirical distinction was that the self-defense and armed-security items clustered together as individual-level treatment responsibility attributions, whereas the social-disorganization and economic-deprivation items clustered together as structural-level treatment responsibility attributions. However, the mental-illness and high-risk-access items showed less consistent loading across message variants. They formed a separate component in the grocery message but loaded with the structural treatment component in the high school and music festival messages. In addition, the high-risk-access item showed cross-loading across components in the high school and music festival PCAs. For this reason, these two treatment attribution items were analyzed as separate single-item measures rather than being folded into broader composite scales.

Taken together, these findings point to a broader limitation in measuring responsibility attributions for mass shooting violence. Some items crossed the conceptual boundary between individual-level and structural-level explanations or remedies. Mental illness could appear to

locate responsibility within the individual perpetrator, but it may also invoke broader questions about mental health care access, institutional intervention, and social support systems. Similarly, high-risk access to firearms could appear to locate responsibility in structural conditions such as firearm regulation and policy gaps, but it may also direct attention to individual-level risk and the dangerousness of specific actors.

The instability of these items across the causal and treatment responsibility attribution PCAs suggests that they capture meaningful boundary-spanning dimensions of how audiences understand mass shooting violence. This finding indicates that standard attribution measures may be limited when applied to a complex and contested issue such as mass shooting violence. Future research would benefit from developing multidimensional attribution scales that can capture overlapping understandings of personal risk, institutional failure, high-risk firearm access, mental health infrastructure, social ties, and economic inequality.

5.3.3. Ecological Validity in a Digital Era

Another limitation concerns the ecological validity of the experimental stimuli. To maintain experimental control, this study used approximately 270-word fictional, text-based news articles presented in a controlled online survey. The stimuli also used fictional outlet names, such as *American News Today* and *Riverbend Neighborhood News Service*, to signal national versus community news perspectives while preventing participants' preexisting evaluations of real news organizations from influencing their responses. This design aimed to isolate the effects of responsibility framing, content structures, and localization in news reporting. However, it also limited the extent to which the experiment could approximate contemporary news consumption.

In the current digital media environment, audiences often encounter both national and community news online, and news exposure is increasingly influenced by platform design, algorithmic feeds, headlines, images, videos, hyperlinks, comment sections, and repeated exposure across multiple sources (e.g., Metzler et al., 2023; Robertson et al., 2023; Schäfer, 2023; Stroud et al., 2016; E. J. Lee, 2012; N. Newman, 2025). Although the non-narrative stimuli in this study were designed to reflect an Axios-style digital news format, the study still relied on text-only articles read in an isolated survey setting. This format differs from how audiences may encounter mass shooting coverage in everyday life, where textual information is often combined with visual images, audio, video clips, social media commentary, and real-time updates. Therefore, the findings should be interpreted with this context in mind. The present study provides evidence of how manipulated variations in textual news framing are associated with audience responses, but it cannot fully capture how these associations may operate under the multimodal, interactive, and algorithmically organized conditions of contemporary digital news consumption.

5.3.4. Future Directions

Future research could build on these limitations in three main directions. First, future studies could examine whether structural-level responsibility framing has stronger effects when audiences encounter it repeatedly over time and in more ecologically realistic media formats. The present study tested the effects of a single exposure to brief, text-based news messages. This design was useful for experimental manipulation, but it may have provided limited stimulus dosage for shifting responsibility attributions in a cultural context where individualism, personal freedom, and personal responsibility are deeply embedded in public understandings of gun violence (Boukes, 2022; Gross, 2008; Hart, 2011; Iyengar, 1991; Springer & Harwood, 2015;

Strange & Leung, 1999). Longitudinal designs could test whether repeated exposure to structural-level responsibility framing produces more durable changes in causal and treatment responsibility attributions. In addition, future work could examine multimodal forms of digital news, such as video narratives, podcasts, interactive graphics, or social media news formats, to better capture how audiences encounter mass shooting coverage in contemporary digital media environments.

Second, future research could prioritize the development and validation of multidimensional measures of responsibility attributions for mass shooting violence. The PCA results in this study suggested that responsibility attributions did not fit neatly into a simple binary of individual level versus structural level. Some items, such as self-defense and armed security, more consistently reflected individual-level responsibility attributions, while social disorganization and economic deprivation more consistently reflected structural-level responsibility attributions. However, mental illness and high-risk-access items occupied more boundary-spanning positions across both causal and treatment responsibility attribution measures.

Future scale development could, therefore, move beyond simplified responsibility attribution binaries by developing and validating measures that distinguish among clearly individual-level, clearly structural-level, and boundary-spanning attribution dimensions. The present study treated the mental-illness and high-risk-access items as separate single-item measures because they did not align cleanly with the individual-level or structural-level composites. However, future research could not necessarily rely on these concepts as single-item measures. Instead, scholars could develop multi-item subscales that more precisely capture their boundary-spanning meanings. For example, mental-illness responsibility attributions may

include both individualized explanations focused on the perpetrator and structural explanations focused on mental health care access and institutional intervention. Similarly, high-risk-access responsibility attributions may involve both the actions of high-risk individuals and broader policy or enforcement failures. Such an approach would retain the distinction between individual- and structural-level responsibility attributions where it is conceptually clear, while more fully capturing the complexity of responsibility attributions for mass shooting violence.

Third, future studies should examine alternative ways of increasing psychological proximity. In the present study, the community news perspective did not significantly increase psychological proximity, and the indirect associations from localization in news reporting to fear of crime and civic engagement intentions through psychological proximity were non-significant and negative. These findings suggest that the community news perspective may not be sufficient to make a mass shooting incident feel psychologically closer, especially when the incident is explicitly described as occurring outside the participant's state of residence. Future research could test whether other proximity cues are more effective, such as temporal immediacy, breaking-news formats, shared social identity, perceived similarity with victims or survivors, or references to familiar public spaces. These approaches would help clarify whether psychological proximity is more strongly activated by cues related to temporal, spatial, social, or hypothetical closeness, or by some combination of these dimensions.

5.4. Final Conclusion

This study set out to examine how variations in mass shooting news message attributes—specifically responsibility framing, content structures, and localization in news reporting—would be associated with audiences' responsibility attributions for mass shooting violence in the U.S., narrative engagement, discrete emotions, psychological proximity, fear of crime, civic

engagement intentions, and perceived news credibility, newsworthiness, and news quality. The findings reveal that public processing of mass shooting news is highly selective and context-dependent, challenging several traditional assumptions in media effects. Most notably, the data provided clear support for Transportation Theory by showing that narrative content structure was associated with significantly higher narrative engagement, discrete fear, and generalized fear of crime. Similarly, individual-level responsibility framing consistently directed audiences toward individualized causes and solutions. The combination of individual-level responsibility framing and community news perspective was descriptively associated with the highest narrative engagement, but this pattern was not confirmed by follow-up pairwise comparisons.

However, the study also revealed a critical paradox regarding psychological proximity and localization in news reporting. Contrary to Construal-Level Theory expectations, bringing a distant event closer through a community news perspective failed to increase psychological proximity. Instead, psychological proximity was highest when national news perspective was combined with structural-level responsibility framing. The national news perspective also generated significantly higher levels of anger than the community news perspective. This suggests that portraying a mass shooting as a widespread, systemic national issue may make the violence feel more psychologically proximate and more connected to broader sociopolitical concerns than providing context-bound local details from a distant community.

Ultimately, the failure of structural-level responsibility framing to independently shift structural-level responsibility attributions highlights the enduring power of American cultural individualism. A single, short-term news exposure is simply insufficient to override entrenched, macro-level cultural frameworks. To foster public understanding of mass shootings as a preventable societal issue rather than as isolated and inevitable tragedies, journalists may need to

move beyond context-bound local narratives that primarily heighten fear. Challenging the cultural narratives surrounding mass violence may require sustained, structural-level responsibility framing through a national news perspective that consistently connects specific human tragedies to broader institutional and systemic responsibilities.

References

Aarøe, L. (2011). Investigating frame strength: The case of episodic and thematic frames. *Political Communication*, *28*(2), 207-226. https://doi.org/10.1080/10584609.2011.568041

ABC News. (2016, January 17). *Marco Rubio goes all-in on guns following debate.* https://abcnews.go.com/Politics/marco-rubio-guns-debate/story?id=36344239

Adler, R. P., & Goggin, J. (2005). What do we mean by "civic engagement?" *Journal of Transformative Education*, *3*(3), 236-253. https://doi.org/10.1177/1541344605276792

Ajaps, S. O., & Obiagu, A. N. (2021). Increasing civic engagement through civic education: A critical consciousness theory perspective. *Journal of Culture and Values in Education*, *4*(1), 64-87. https://doi.org/10.46303/jcve.2020.2

Alexander, J. (2006). *The civil sphere*. Oxford University Press.

Alexander, J. (2010). *The performance of politics*. Oxford University Press.

Amnå, E. (2012). How is civic engagement developed over time? Emerging answers from a multi-disciplinary field. *Journal of Adolescence*, *35*(3), 611-627. https://doi.org/10.1016/j.adolescence.2012.04.011

Amsalem, E., & Zoizner, A. (2022). Real, but limited: A meta-analytic assessment of framing effects in the political domain. *British Journal of Political Science*, *52*(1), 221-237. https://doi.org/10.1017/S0007123420000253

An, S.-K., & Gower K. K. (2009). How do the news media frame crises? A content analysis of crisis news coverage. *Public Relations Review*, *35*(2), 107-112. https://doi.org/10.1016/j.pubrev.2009.01.010

Andersen, K., Skovsgaard, M., Albæk, E., & de Vreese, C. H. (2017). The engaging effect of exemplars: How an emotional reaction to (dis) similar people in the news media affects political participation. *The International Journal of Press/Politics*, *22*(4), 490-509. https://doi.org/10.1177/1940161217723152

Andrade-Valbuena, N. A., Olavarrieta, S. S., & Torres, C. J. P. (2024). Perception of hypotheticality in technology-based business ideas: Effects on Opportunity Beliefs from a Construal Level Theory perspective. *Frontiers in Psychology*, *15*, Article 1404726. https://doi.org/10.3389/fpsyg.2024.1404726

Appelman, A., & Sundar, S. S. (2016). Measuring message credibility: Construction and validation of an exclusive scale. *Journalism and Mass Communication Quarterly*, *93*(1), 59-79. https://doi.org/10.1177/1077699015606057

Arceneaux, K. (2005). Does federalism weaken democratic representation in the United States? *Publius: The Journal of Federalism*, *35*(2), 297-311. https://doi.org/10.1093/publius/pji015

Armstrong, E. A., & Bernstein, M. (2008). Culture, power, and institutions: A multi-institutional politics approach to social movements. *Sociological Theory*, *26*(1), 74-99. https://doi.org/10.1111/j.1467-9558.2008.00319.x

Bekalu, M. A., Bigman, C. A., McCloud, R. F., Lin, L. K., & Viswanath, K. (2018). The relative persuasiveness of narrative versus non-narrative health messages in public health emergency communication: Evidence from a field experiment. *Preventive Medicine*, *111*, 284-290. https://doi.org/10.1016/j.ypmed.2017.11.014

Ben-Porath, E. N., & Shaker, L. K. (2010). News images, race, and attribution in the wake of Hurricane Katrina. *Journal of Communication*, *60*(3), 466-490. https://doi.org/10.1111/j.1460-2466.2010.01493.x

Benedict, H. (1993). *Virgin or vamp: How the press covers sex crimes*. Oxford University Press.

Berenbaum, H. (2010). An initiation-termination two-phase model of worrying. *Clinical Psychology Review*, *30*(8), 962-975. https://doi.org/10.1016/j.cpr.2010.06.011

Berger, B. (2009). Political theory, political science, and the end of civic engagement. *Perspectives on Politics*, *7*(2), 335-350. https://doi.org/10.1017/S153759270909080X

Berns, N. (1999). "My problem and how I solved it": Domestic violence in women's magazines. *The Sociological Quarterly*, *40*(1), 85-108. https://doi.org/10.1111/j.1533-8525.1999.tb02359.x

Berns, N. (2001). Degendering the problem and gendering the blame: Political discourse on women and violence. *Gender & Society*, *15*(2), 262-281. https://doi.org/10.1177/089124301015002006

Berns, N. (2010) *Framing the victim: Domestic violence, media, and social problems*. Routledge.

Bernstein, M., Jordan M., & Elizabeth C. (2019). Once in Parkland, a year in Hartford, a weekend in Chicago: Race and resistance in the gun violence prevention movement. *Sociological Forum*, *34*(1), 1153-1173. https://doi.org/10.1111/socf.12538

Best, J. (1987). Rhetoric in claims-making: Constructing the missing children problem. *Social Problems*, *34*(2), 101-121. https://doi.org/10.2307/800710

Betsch, C., Haase, N., Renkewitz, F., & Schmid, P. (2015). The narrative bias revisited: What drives the biasing influence of narrative information on risk perceptions? *Judgment and Decision Making*, *10*(3), 241-264. https://doi.org/10.1017/S1930297500004654

Betsch, C., Ulshöfer, C., Renkewitz, F., & Betsch, T. (2011). The influence of narrative v. statistical information on perceiving vaccination risks. *Medical Decision Making*, *31*(5), 742-753. https://doi.org/10.1177/0272989X11400419

Binder, M. (2021). Enhancing democracy: Can civic engagement foster political participation? *Social Science Quarterly*, *102*(1), 47-68. https://doi.org/10.1111/ssqu.12882

Blau, J. R., & Blau, P. M. (1982). The cost of inequality: Metropolitan structure and violent crime. *American Sociological Review*, 114-129. https://doi.org/10.2307/2095046

Bolls, P. D. (2010). Understanding emotion from a superordinate dimensional perspective: A productive way forward for communication processes and effects studies. *Communication Monographs*, *77*(2), 146-152. https://doi-org.ezproxy.lib.ou.edu/10.1080/03637751003790477

Bottoms, A. (2012). Developing socio-spatial criminology. In M. Maguire, R. Morgan, & R. Reiner (Eds.), *The Oxford handbook of criminology* (pp. 450-489). Oxford University Press.

Boukes, M. (2022). Episodic and thematic framing effects on the attribution of responsibility: The effects of personalized and contextualized news on perceptions of individual and political responsibility for causing the economic crisis. *The International Journal of Press/Politics*, *27*(2), 374-395. https://doi.org/10.1177/1940161220985241

Boukes, M., Boomgaarden, H. G., Moorman, M., & de Vreese, C. H. (2015). Political news with a personal touch: How human interest framing indirectly affects policy attitudes. *Journalism & Mass Communication Quarterly*, *92*(1), 121-141. https://doi.org/10.1177/1077699014558554

Boukes, M., Jones, N. P., & Vliegenthart, R. (2022). Newsworthiness and story prominence: How the presence of news factors relates to upfront position and length of news stories. *Journalism*, *23*(1), 98-116. https://doi.org/10.1177/1464884919899313

Braddock, K., & Dillard, J. P. (2016). Meta-analytic evidence for the persuasive effect of narratives on beliefs, attitudes, intentions, and behaviors. *Communication Monographs*, *83*(4), 446-467. https://doi.org/10.1080/03637751.2015.1128555

Bradley, M. M., & Lang, P. J. (2007). Emotion and motivation. In J. T. Cacioppo, L. G. Tassinary, & G. G. Berntson (Eds.), *Handbook of psychophysiology* (pp. 581-607). Cambridge University Press.

Brehm, S. S., & Brehm, J. W. (1981). *Psychological reactance—A theory of freedom and control*. Academic Press. https://doi.org/10.1016/C2013-0-10423-0

Brener, N. D., Simon, T. R., Anderson, M., Barrios, L. C., & Small, M. L. (2002). Effect of the incident at Columbine on students' violence-and suicide-related behaviors. *American Journal of Preventive Medicine*, *22*(3), 146-150. https://doi.org/10.1016/S0749-3797(01)00433-0

Bridges, T. (2021). Antifeminism, profeminism, and the myth of white men's disadvantage. *Signs: Journal of Women in Culture and Society*, *46*(3), 663-688. https://doi.org/10.1086/712076

Bridges, T., & Tober, T. L. (2019). Mass shootings, masculinity, and gun violence as feminist issues. In V. Taylor, N. Whittier, & L. Rupp (Eds.), *Feminist Frontiers* (10th ed., pp. 498-505). Rowman and Littlefield. https://doi.org/10.31235/osf.io/3vp9b

Brodeur, A., & Yousaf, H. (2019). *The conomics of mass shootings* (No. 12728). IZA Discussion Papers. https://hdl.handle.net/10419/215124df

Brownell, K. D., Schwartz, M. B., Puhl, R. M., Henderson, K. E., & Harris, J. L. (2009). The need for bold action to prevent adolescent obesity. *Journal of Adolescent Health*, *45*(3), S8-S17. https://doi.org/10.1016/j.jadohealth.2009.03.004

Bryant, C., & Dillard, C. (2019). The impact of framing on acceptance of cultured meat. *Frontiers in Nutrition*, *6*, Article 103. https://doi.org/10.3389/fnut.2019.00103

Busselle, R., & Bilandzic, H. (2009). Measuring narrative engagement. *Media Psychology, 12*(4), 321-347. https://doi.org/10.1080/15213260903287259

Butts, J. A., Roman, C. G., Bostwick, L., & Porter, J. R. (2015). Cure violence: A public health model to reduce gun violence. *Annual review of public health*, *36*(1), 39-53. https://doi.org/10.1146/annurev-publhealth-031914-122509

Cacioppo, J. T., & Gardner, W. L. (1999). Emotion. *Annual Review of Psychology*, *50*, 191-214. https://doi.org/10.1146/annurev.psych.50.1.191

Cacioppo, J. T., Gardner, W. L., & Berntson, G. G. (1999). The affect system has parallel and integrative processing components: form follows function. *Journal of Personality and Social Psychology*, *76*(5), 839-855. https://doi.org/10.1037/0022-3514.76.5.839

Callanan, V. J. (2012). Media consumption, perceptions of crime risk and fear of crime: Examining race/ethnic differences. *Sociological Perspectives*, *55*(1), 93-115. https://doi.org/10.1525/sop.2012.55.1.93

Camacho Doyle, M., Gerell, M., & Andershed, H. (2022). Perceived unsafety and Fear of crime: The role of violent and property crime, neighborhood characteristics, and prior perceived unsafety and fear of crime. *Deviant Behavior*, *43*(11), 1347-1365. https://doi.org/10.1080/01639625.2021.1982657

Carlson, J. (2021, June 29). *Beyond law and order in the gun debate: Black Lives Matter, abolitionism, and anti-racist gun policy*. Brennan Center for Justice. https://www.brennancenter.org/our-work/research-reports/beyond-law-and-order-gun-debate

Carra, M. (2025, April 15). *Why journalists need to report on the local impact of national news*. NBCU Academy. https://nbcuacademy.com/local-journalists-angle-national-news/#:~:text=A%20lot%20of%20times%2C%20the,and%20what's%20happening%20right%20now.%E2%80%9D

Centers for Disease Control and Prevention. (2024, August 19). *Firearm Homicide Trends*. https://www.cdc.gov/firearm-violence/php/data-trends/firearm-homicide-trends.html

Cerulo, K. (1998). *Deciphering violence: The cognitive structure of right and wrong.* Routledge.

Chang, H., Zhang, L., & Xie, G.-X. (2015). Message framing in green advertising: The effect of construal level and consumer environmental concern. *International Journal of Advertising*, *34*(1), 158-176. https://doi.org/10.1080/02650487.2014.994731

Chataway, M. L., & Mellberg, J. (2021). Fear of crime in Brisbane city: Revisiting the importance of 'context' in the development of fear of crime. *Crime Prevention and Community Safety*, *23*(2), 137-154. https://doi.org/10.1057/s41300-021-00111-3

Chataway, M. L., Hart, T. C., Coomber, R., & Bond, C. (2017). The geography of crime fear: A pilot study exploring event-based perceptions of risk using mobile technology. *Applied geography*, *86*, 300-307. https://doi.org/10.1016/j.apgeog.2017.06.010

Chattoo, C. B. (2021). Entertainment-education as social justice activism in the United States: Narrative strategy in the participatory media era. In L. B. Frank & P. Falzone (Eds.),

Entertainment-education behind the scenes: Case studies for theory and practice (pp. 39-59). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-63614-2_4

Chattoo, C. B., Young, L., Conrad, D., & Coskuntuncel, A. (2021). "The rent is too damn high": News portrayals of housing security and homelessness in the United States. *Mass Communication and Society*, *24*(4), 553-575. https://doi.org/10.1080/15205436.2021.1881126

Cho, H., Shen, L., & Wilson, K. (2012). Perceived realism: Dimensions and roles in narrative persuasion. *Communication Research*, *41*(6), 828-851. https://doi.org/10.1177/0093650212450585

Chun, C.-U., & Shi, C.-K. (2013, November 8-10). *Narrative news: How the factuality and the narrative format of news and fiction writing affect readers' emotional and cognitive responses* [Conference session]. The Fourth Asian Conference on Media and Mass Communication 2013, The Ramada Osaka, Osaka, Osaka Prefecture, Japan.

Ciuk, D. J., & Rottman, J. (2021). Moral conviction, emotion, and the influence of episodic versus thematic frames. *Political Communication*, *38*(5), 519-538. https://doi.org/10.1080/10584609.2020.1793847

Clayton, R. B., Lang, A., Leshner G., & Quick, B. L. (2018). Who fights, who flees? An integration of the LC4MP and psychological reactance theory. *Media Psychology*, *22*(4), 545-571. https://doi.org/10.1080/15213269.2018.1476157

Cohen, A. P., Azrael D., & Miller, M. (2014, October 15). *Rate of mass shootings has tripled since 2011, Harvard research shows*. Mother Jones. https://www.motherjones.com/politics/2014/10/mass-shootings-increasing-harvard-research/

Cohen, J. (2001). Defining identification: A theoretical look at the identification of audiences with media characters. *Mass communication & society*, *4*(3), 245-264. https://doi.org/10.1207/S15327825MCS0403_01

Cook, P. J., & Goss, K. A. (2014). *The gun debate: What everyone needs to know*. Oxford University Press.

Corby, E.-K., Campbell, M., Spears, B., Slee, P., Butler, D., & Kift, S. (2014). Students' perceptions of their own victimization: A youth voice perspective. *Journal of School Violence*, *15*(3), 322-342. https://doi.org/10.1080/15388220.2014.996719

Cuklanz, L. (1995). *Rape on trial: How the mass media construct legal reform and social change*. University of Pennsylvania press.

Cuklanz, L. (2000). *Rape on prime time: Television, masculinity, and sexual Violence*. University of Pennsylvania press.

Cuklanz, L. (2020). Problematic news framing of #MeToo. *The Communication Review*, *23*(4), 251-272. http://dx.doi.org/10.1080/10714421.2020.1829302

Curiel, R. P., & Bishop, S. R. (2018). Fear of crime: The impact of different distributions of victimisation. *Palgrave Communications, 4*. https://doi.org/10.1057/s41599-018-0094-8

Cutler, F. (2004). Government responsibility and electoral accountability in federations. *Publius: The Journal of Federalism*, *34*(2), 19-38. https://doi.org/10.1093/oxfordjournals.pubjof.a005028

D'Angelo, P. (2002). News framing as a multiparadigmatic research program: A response to Entman. *Journal of Communication*, *52*(4), 870-888. https://doi.org/10.1111/j.1460-2466.2002.tb02578.x

Dahlstrom, M. F. (2014). Using narratives and storytelling to communicate science with nonexpert audiences. *Proceedings of the National Academy of Sciences*, *111*(Suppl. 4), 13614-13620. https://doi.org/10.1073/pnas.1320645111

Dancy, G., Holman, M., & McKenzie, K. (2019). The origins of gun policy in U.S. states.Dancy, Geoff, Holman, Mirya, & McKenzie, Kayden. (2019). The Origins of Gun Policy in U.S. States. *Washington University Journal of Law & Policy*, *60*, 171-202.

Davis, A. Y., & Rodriguez, D. (2000). The challenge of prison abolition: A conversation. *Social Justice*, *27*(3[81]), 212-218. https://www.jstor.org/stable/29767244

Day, K., Gough, B., & McFadden, M. (2004). Warning! alcohol can seriously damage your feminine health. *Feminist Media Studies*, *4*(2), 165-183. https://doi.org/10.1080/1468077042000251238

de Graaf, A., Hoeken, H., Sanders, J., & Beentjes, J. W. (2012). Identification as a mechanism of narrative persuasion. *Communication Research*, *39*(6), 802-823. https://doi.org/10.1177/0093650211408594

de Vreese, C. H. (2003). *Framing Europe: Television news and European integration*. Aksant Academic Publishers.

de Vreese, C. H. (2005). News framing: Theory and typology. *Information Design Journal*, *13*(1), 51-62. https://doi.org/10.1075/idjdd.13.1.06vre

Debrael, M., d'Haenens, L., De Cock, R., & De Coninck, D. (2021). Media use, fear of terrorism, and attitudes towards immigrants and refugees: Young people and adults compared. *International Communication Gazette*, *83*(2), 148-168. https://doi.org/10.1177/1748048519869476

DeFoster, R., & Swalve, N. (2018). Guns, culture or mental health? Framing mass shootings as a public health crisis. *Health Communication*, *33*(10), 1211-1222. https://doi.org/10.1080/10410236.2017.1350907

Degli Esposti, M., Hans, Z., Thulin, E., Hibbs, E. L., & Sokol, R. L. (2025). The US media should rethink coverage of firearm violence. *Nature Human Behaviour*, *9*(2), 234-236. https://doi.org/10.1038/s41562-024-02095-0

DeLisi, M., Jones-Johnson, G., Johnson, W. R., & Hochstetler, A. (2014). The aftermath of criminal victimization: Race, self-esteem, and self-efficacy. *Crime & Delinquency*, *60*(1), 85-105. https://doi.org/10.1177/0011128709354036

DiAngelo, R. (2018). *White fragility: Why it's so hard to talk to White people about racism*. Beacon Press.

Dickinson, A., & Dearing, M. F. (1979). Appetitive-aversive interactions and inhibitory processes. In A. Dickinson & R. A. Boakes (Eds.), *Mechanisms of learning and motivation* (pp. 203-231). Lawrence Erlbaum Associates.

Dillard, J. P., & Anderson, J. W. (2004). The role of fear in persuasion. *Psychology & Marketing*, *21*(11), 909-926. https://doi.org/10.1002/mar.20041

District of Columbia v. Heller, 554 U.S. 570 (2008). https://supreme.justia.com/cases/federal/us/554/570/

Donsbach, W. (2004). Psychology of news decisions: Factors behind journalists' professional behavior. *Journalism*, *5(*2), 131-157. https://doi.org/10.1177/146488490452002

Doolittle, A., & Faul, A. C. (2013). Civic engagement scale: A validation study. *Sage Open*, *3*(3). https://doi.org/10.1177/2158244013495542

Dunlop, S., Wakefield, M., & Kashima, Y. (2008). Can you feel it? Negative emotion, risk, and narrative in health communication. *Media Psychology*, *11*(1), 52-75. https://doi.org/10.1080/15213260701853112

Dunwoody, S. (1992). The media and public perceptions of risk: How journalists frame risk stories. In D. W. Bromley & K. Segerson (Eds.), *The social response to environmental risk: Policy formulation in an age of uncertainty* (pp. 75-100). Kluwer. http://dx.doi.org/10.1007/978-94-011-2954-1

Duwe, G, Kovandzic, T., & Moody, C. E. (2002). The impact of right-to-carry concealed firearm laws on mass public shootings. *Homicide Studies*, *6*(4), 271-296. https://doi.org/10.1177/108876702237341

Duwe, G. (2000). Body-count journalism: The presentation of mass murder in the news media. *Homicide Studies*, *4*(4), 364-399. https://doi.org/10.1177/1088767900004004004

Duwe, G. (2020). Patterns and prevalence of lethal mass violence. *Criminology and Public Policy*, *19*(1), 17-35. https://doi.org/10.1111/1745-9133.12478

Dyer, R. L., Pizarro, D. A., & Ariely, D. (2022). They had it coming: The relationship between perpetrator-blame and victim-blame. *Social Cognition*, *40*(6), 503-527. https://doi.org/10.1521/soco.2022.40.6.503

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace College Publishers.

Ecker, U. K .H., Butler, L. H., & Hamby, A. (2020). You don't have to tell a story! A registered report testing the effectiveness of narrative versus non-narrative misinformation corrections. *Cognitive Research: Principles and Implications*, *5*, Article 64. https://doi.org/10.1186/s41235-020-00266-x

Edelman, M. (1988). *Constructing the political spectacle*. University of Chicago Press.

Edwards, P., & Arnon, D. (2021). Violence on many sides: Framing effects on protest and support for repression. *British Journal of Political Science*, *51*(2), 488-506. https://doi.org/10.1017/S0007123419000413

Ehrlich, T. (2000). *Civic Responsibility and Higher Education*. Rowman & Littlefield Publishers.

Eide, M. (2017). The culture of service journalism. In N. N. Kristensen & K. Riegert (Eds.), *Cultural journalism in the Nordic countries* (pp. 195-204). Nordicom.

Ekman, J., & Amnå, E. (2022). Civic engagement. In M. Giugni & M. Grasso (Eds.), *The Oxford handbook of political participation* (pp. 381-395). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780198861126.013.23

Elmas, M. S. (2021). Perceived risk of terrorism, indirect victimization, and individual-level determinants of fear of terrorism. *Security Journal*, *34*(3), 498-524. https://doi.org/10.1057/s41284-020-00242-6

Elsass, H. J., Schildkraut, J., & Stafford, M. C. (2014). Breaking news of social problems: Examining media consumption and panic over school shootings. *Criminology, Criminal Justice Law & Society*, *15*(2), 31-42.

Emelu, M. N. (2023). The US cable televisions' framing of mass shooting: A grounded discovery of competing narratives. *Frontiers in Communication*, *8*, 1174946. https://doi.org/10.3389/fcomm.2023.1174946

Engström, A., & Kronkvist, K. (2021). Examining experiential fear of crime using STUNDA: Findings from a smartphone-based experience methods study. *European Journal of Criminology*, 20(2), 693-711. https://doi.org/10.1177/14773708211035301

Enos, R. D. (2016). What the demolition of public housing teaches us about the impact of racial threat on political behavior. *American Journal of Political Science*, *60*(1), 123-142. https://doi.org/10.1111/ajps.12156

Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, *43*(4), 52-53. https://doi.org/10.1111/j.1460-2466.1993.tb01304.x

Entman, R. M. (2004). *Projections of power: Framing news, public opinion, and US foreign policy*. University of Chicago Press. https://doi.org/10.7208/chicago/9780226210735.001.0001

Escalas, J. E. (2004). Imagine yourself in the product: Mental simulation, narrative transportation, and persuasion. *Journal of Advertising*, *33*(2), 37-48. https://doi.org/10.1080/00913367.2004.10639163

Etopio, A. L., & Berthelot, E. R. (2022). Defining and measuring fear of crime: A new validated scale created from emotion theory, qualitative interviews, and factor analyses. *Criminology, Criminal Justice, Law & Society*, 23*(1)*, *46-67*. https://doi.org/10.54555/ccjls.4234.34104

Farrall, S., Bannister, J., Ditton, J., & Gilchrist, E. (2000). Social psychology and the fear of crime: Re-examining a speculative model. *The British Journal of Criminology*, *40*(3), 399-413. http://www.jstor.org/stable/23638939

Farrall, S., Jackson, J., & Gray, E. (2009). *Social order and the fear of crime in contemporary times*. Oxford University Press.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175-191. https://doi.org/10.3758/BF03193146

Federal Bureau of Investigation. (2013, September 16). *A study of active shooter incidents in the United States between 2000 and 2013*. https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf/view

Federal Bureau of Investigation. (2021, May). *Active shooter incidents 20-year review, 2000-2019*. https://www.fbi.gov/file-repository/active-shooter-incidents-20-year-review-2000-2019-060121.pdf/view

Federal Bureau of Investigation. (2024, June). *Active shooter incidents in the United States in 2023*. https://www.fbi.gov/file-repository/2023-active-shooter-report-062124.pdf/view

Feezell, J. T., Glazier, R. A., & Boydstun, A. E. (2019). Framing, identity, and responsibility: Do episodic vs. thematic framing effects vary by target population? *Politics, Groups, and Identities*, *9*(2), 347-368. https://doi.org/10.1080/21565503.2019.1584751

Ferraro, K. F., & LaGrange, R. L. (1987). The measurement of fear of crime. *Sociological Inquiry*, *57*(1), 70-101. https://doi.org/10.1111/j.1475-682X.1987.tb01181.x

Fiske, S. T., & Taylor, S. E. (1991). *Social Cognition* (2nd ed.). Mcgraw-Hill Book Company.

Fitzgerald, K., Paravati, E., Green, M. C., Moore, M. M., & Qian, J. L. (2019). Restorative narratives for health promotion. *Health Communication, 0*(0), 1-8. https://doi.org/10.1080/10410236.2018.1563032

Fiveable. (2024, July 24). *4.1 Narrative structures (chronological, inverted pyramid, etc.)*. https://fiveable.me/narrative-journalism/unit-4/narrative-structures-chronological-inverted-pyramid-etc/study-guide/K62YowHpwjgWw2lp

Fiveable. (2024, July 31). Local vs. national news. https://fiveable.me/key-terms/media-literacy/local-vs-national-news?utm_source=chatgpt.com

Fox, J. A., & DeLateur, M. J. (2014). Mass shootings in America: Moving beyond Newtown. *Homicide Studies*, *18*(1), 125-145. https://doi.org/10.1177/1088767913510297

Fox, J. A., & Fridel, E. E. (2016). The tenuous connections involving mass shootings, mental illness, and gun laws. *Violence and Gender*, *3*(1), 14-19. https://doi.org/10.1089/vio.2015.0054

Fox, J. A., & Levin, J. (1998). Multiple homicide: Patterns of serial and mass murder. *Crime and Justice*, *23*, 407-455. http://www.jstor.org/stable/1147545

Fox, J. A., & Levin, J. (2015). *Extreme killing: Understanding serial and mass murder* (3rd ed.). Sage Publishing.

Franiuk, R., Seefelt, J. L., Cepress, S. L., & Vandello, J. A. (2008). Prevalence and effects of rape myths in print journalism: The Kobe Bryant case. *Violence Against Women*, *14*(3), 287-309. https://doi.org/10.1177/1077801207313971

Frank, L. B., Murphy, S. T., Chatterjee, J. S., Moran, M. B., & Baezconde-Garbanati, L. (2015). Telling stories, saving lives: creating narrative health messages. *Health Communication*, *30*(2), 154-163. https://doi.org/10.1080/10410236.2014.974126

Franklin, C. A., & Franklin, T. W. (2009). Predicting fear of crime: Considering differences across gender. *Feminist Criminology*, *4*(1), 83-106. https://doi.org/10.1177/1557085108325196

Frederick, D. A., Saguy, A. C., & Gruys, K. (2016). Culture, health, and bigotry: How exposure to cultural accounts of fatness shape attitudes about health risk, health policies, and weight-based prejudice. *Social Science & Medicine*, *165*, 271-279. https://doi.org/10.1016/j.socscimed.2015.12.031

Freeman, J. (2020). Differentiating distance in local and hyperlocal news. *Journalism*, *21*(4) 524-540. https://doi.org/10.1177/1464884919886440

Fridel, E. E. (2022). Integrating the literature on lethal violence: A comparison of mass murder, homicide, and homicide-suicide. *Homicide Studies*, *26*(2), 123-147. https://doi.org/10.1177/10887679211002889

Frijda, N. (1986). *The emotions*. Cambridge University Press.

Furstenberg, F. F. (1971). Public reaction to crime in the streets. *The American Scholar*, *40*(4), 601-610. http://www.jstor.org/stable/41209894

Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. Journal of Personality and Social Psychology, *85*(3), 453-466. https://doi.org/10.1037/0022-3514.85.3.453

Gallagher, K. M., & Updegraff, J. A. (2012). Health message framing effects on attitudes, intentions, and behavior: A meta-analytic review. *Annals of Behavioral Medicine*, *43*(1), 101-116. https://doi.org/10.1007/s12160-011-9308-7

Galtung, J., & Ruge, M. H. (1965). The structure of foreign news: The presentation of the Congo, Cuba and Cyprus crises in four Norwegian newspapers. *Journal of peace research*, *2*(1), 64-90. https://doi.org/10.1177/002234336500200104

Gamson, W. A., & Modigliani, A. (1987). The changing culture of affirmative action. In R. G. Braungart & M. M. Braungart (Eds.), *Research in political sociology* (pp. 137-177). JAI Press.

Garofalo, J. (1981). Fear of crime: Causes and consequences. *Journal of Criminal Law and Criminology*, *72*(2), 839-857. https://scholarlycommons.law.northwestern.edu/jclc/vol72/iss2/20

Gerrig, R. J. (1993). *Experiencing narrative worlds: On the psychological activities of reading*. Yale University Press.

Ghio, M., Simpson, J. T., Ali, A., Fleckman, J. M., Theall, K. P., Constans, J. I., Tatum, D., McGrew, P. R., Duchesne, J., & Taghavi, S. (2023). Association between markers of structural racism and mass shooting events in major US cities. *JAMA Surgery*, *158*(10), 1032-1039. https://doi.org/10.1001/jamasurg.2023.2846

Gil de Zúñiga, H., Valenzuela, S., & Weeks, B. E. (2016). Motives for political discussion: Antecedents and consequences on civic engagement. *Human Communication Research*, *42*(4). 533-552. https://doi.org/10.1111/hcre.12086

Gilbert, D. S. (1991). How mental systems believe. *American Psychologist*, *46*(2), 107-119. https://doi.org/10.1037/0003-066X.46.2.107

Gilmore, R. W., & Kilgore, J. (2019, June 19). *The case for abolition*. The Marshall Project. https://www.themarshallproject.org/2019/06/19/the-case-for-abolition

Girling, E., Loader, I., & Sparks, R. (2000). *Crime and social change in middle England: Questions of Order in an English Town*. Routledge.

Gius, M. (2015). The impact of state and federal assault weapons bans on public mass shootings. *Applied Economics Letters*, *22*(4), 281-284. https://doi.org/10.1080/13504851.2014.939367

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Harper Colophon.

Goldberg, A. C., Brosius, A., & de Vreese, C. H. (2022). Policy responsibility in the multilevel EU structure-The (non-)effect of media reporting on citizens' responsibility attribution

across four policy areas. *Journal of European Integration*, *44*(3), 381-409. https://doi.org/10.1080/07036337.2020.1863959

Gomez B. T., & Wilson J. M. (2008). Political sophistication and attributions of blame in the wake of Hurricane Katrina. *Publius*, *38*(4), 633-650. https://doi.org/10.1093/publius/pjn016

González Rodríguez, M. J. (2004). Between narrative and non-narrative: Make up of the news story. *Revista Canaria de Estudios Ingleses*, *49*, 135-156. http://riull.ull.es/xmlui/handle/915/29385

Gouseti, I., & Jackson, J. (2015). Construal-level theory and fear of crime. In D. Chadee (Ed.), *Psychology of fear, crime, and the media: International perspectives* (pp. 22-39). Routledge/Taylor & Francis Group.

Grabe, M. E., Kleemans, M., Bas, O., Myrick, J. G., & Kim, M. (2017). Putting a human face on cold, hard facts: Effects of personalizing social issues on perceptions of issue importance. *International Journal of Communication*, *11*, 907-929. https://ijoc.org/index.php/ijoc/article/view/4824

Gramlich, J. (2023, April 26). *What the data says about gun deaths in the U.S.* Pew Research Center. https://www.pewresearch.org/short-reads/2023/04/26/what-the-data-says-about-gun-deaths-in-the-u-s/

Green, D. P. (2021). In search of entertainment-education's effects on attitudes and behaviors. In L. B. Frank & P. Falzone (Eds.), *Entertainment-education behind the scenes: Case studies for theory and practice* (pp. 195-210). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-63614-2_12

Green, M. C. (2004). Transportation into narrative worlds: The role of prior knowledge and perceived realism. *Discourse Processes*, *38*(2), 247-266. https://doi.org/10.1207/s15326950dp3802_5

Green, M. C. (2008). Transportation theory. In W. Donsbach (Ed.), *The international encyclopedia of communication* (pp. 1-7). John Wiley & Sons. https://doi.org/10.1002/9781405186407.wbiect058

Green, M. C. (2017). Transportation theory. In W. Donsbach (Ed.), *The Oxford Research Encyclopedia of Communication*. Oxford University Press. https://doi.org/10.1093/acrefore/9780190228613.013.261

Green, M. C. (2021). Transportation into narrative worlds. In L.B. Frank & P. Falzone (Eds.), *Entertainment-education behind the scenes: Case studies for theory and practice* (pp. 87-101). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-63614-2_6

Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology, 79*(5), 701-721. https://doi.org/10.1037//0022-3514.79.5.701

Green, M.C. & Appel, M. (2024). Narrative transportation: How stories shape how we see ourselves and the world. *Advances in Experimental Social Psychology*, 70, 1-82. https://doi.org/10.1016/bs.aesp.2024.03.002

Greene, K., & Brinn, L. S. (2003). Messages influencing college women's tanning bed use: Statistical versus narrative evidence format and a self-assessment to increase perceived susceptibility. *Journal of Health Communication*, *8*(5), 443-461. https://doi.org/10.1080/713852118

Grigoreva Crean, A. D., Lourenco, S. F., & Tasimi, A. (2026). The moral pull of "women and children". *Cognition*, *266*, 106320. https://doi.org/10.1016/j.cognition.2025.106320

Gross, K. (2008). Framing persuasive appeals: Episodic and thematic framing, emotional response, and policy opinion. *Political Psychology*, *29*(2), 169-192. https://doi.org/10.1111/j.1467-9221.2008.00622.x

Haider-Markel, D. P., & Joslyn, M. R. (2001). Gun policy, opinion, tragedy, and blame attribution: The conditional influence of issue frames. *Journal of Politics*, *63*(2), 520-543. https://doi.org/10.1111/0022-3816.00077

Hale, C. (1996). Fear of crime: A review of the literature. *International Review of Victimology*, *4*(2), 79-150. https://doi.org/10.1177/026975809600400201

Hall, A. (2003). Reading realism: Audiences' evaluations of the reality of media texts. *Journal of Communication, 53*(4), 624-641. https://doi.org/10.1111/j.1460-2466.2003.tb02914.x

Hänggli, R. (2012). Key factors in frame building: How strategic political actors shape news media coverage. *American Behavioral Scientist*, *56*(3), 300-317. https://doi.org/10.1177/0002764211426327

Hansen, C. (2023, May 8). *Recent shootings strike at long-held pro-gun myths*. U.S. News. https://www.usnews.com/news/national-news/articles/2023-05-08/recent-shootings-strike-at-long-held-pro-gun-myths

Harcup, T., & O'Neill, D. (2001). What is news? Galtung and Ruge revisited. *Journalism Studies*, *2*(2), 261-280. https://doi.org/10.1080/14616700118449

Harlow, S., & Chadha, M. (2021). Looking for community in community news: An examination of public-spirited content in online local news sites. *Journalism*, *22*(3), 596-615. https://doi.org/10.1177/1464884918805255

Hart, Philip S. (2011). One or many? The influence of episodic and thematic climate change frames on policy preferences and individual behavior change. *Science Communication*, *33*(1), 28-51. https://doi.org/10.1177/1075547010366400

Haslanger, S. (2023). Systemic and structural injustice: Is there a difference? *Philosophy*, *98*(1), 1-27. https://doi.org/10.1017/S0031819122000353

Hauser, D. J., Moss, A. J., Rosenzweig, C., Jaffe, S. N., Robinson, J., Litman, L. (2023). Evaluating CloudResearch's Approved Group as a solution for problematic data quality on MTurk. *Behavior Research Methods*, *55*, 3953-3964. https://doi.org/10.3758/s13428-022-01999-x

Heber, A. (2014). Good versus bad? Victims, offenders and victim-offenders in Swedish crime policy. *European Journal of Criminology*, *11*(4), 410-428. https://doi.org/10.1177/1477370813503920

Henderson, M. D., Fujita, K., Trope, Y., & Liberman, N. (2006). Transcending the "here": The effect of spatial distance on social judgment. *Journal of Personality and Social Psychology*, *91*(5), 845-856. https://doi.org/10.1037/0022-3514.91.5.845

Henderson, M. D., Trope, Y., & Carnevale, P. J. (2006). Negotiation from a near and distant time perspective. *Journal of Personality and Social Psychology*, *91*(4), 712-729. https://doi.org/10.1037/0022-3514.91.4.712

Henke, J., Leissner, L., & Möhring, W. (2020). How can journalists promote news credibility? Effects of evidences on trust and credibility. *Journalism Practice*, *14*(3), 299-318. https://doi.org/10.1080/17512786.2019.1605839

Hess, K., & Waller, L. (2014). Geo-social journalism: Reorienting the study of small commercial newspapers in a digital environment. *Journalism Practice*, *8*(2), 121-136. https://doi.org/10.1080/17512786.2013.859825

Hilgartner, S., & Bosk, C. L. (1988). The rise and fall of social problems: A public arenas model. *American Journal of Sociology*, *94*(7), 53-78. http://www.jstor.org/stable/2781022

Hinyard, L. J., & Kreuter, M. W. (2007). Using narrative communication as a tool for health behavior change: A conceptual, theoretical, and empirical overview. *Health Education & Behavior*, *34*(5), 777-792. https://doi.org/10.1177/1090198106291963

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage Publications.

Holody, K. J., & Shaughnessy, B. (2022). #NEVERAGAIN: Framing in community and national news coverage of the Parkland mass shootings. *Journalism Practice*, *16*(4), 637-659. https://doi.org/10.1080/17512786.2020.1816857

Hopmann, D. N., Skovsgaard, M., & Elmelund-Præstekær, C. (2017). What have I done to deserve this? The role of deservingness in effects of ordinary citizens as cases in the news. *European Journal of Communication*, *32*(4), 333-347. https://doi.org/10.1177/0267323117710900

Huddy, L., & Feldman, S. (2011). Americans respond politically to 9/11: Understanding the impact of the terrorist attacks and their aftermath. *American Psychologist*, *66*(6), 455-467. https://doi.org/10.1037/a0024894

Huddy, L., Feldman, S., Taber, C., & Lahav, G. (2005). Threat, anxiety, and support of antiterrorism policies. *American Journal of Political Science*, *49*(3), 593-608. https://doi.org/10.1111/j.1540-5907.2005.00144.x

Hunter, J. D. (1991). *Culture wars: The struggle to control the family, art, education, law, and politics in America*. Basic Books.

Ingraham, C. (2018, June 19). *There are more guns than people in the United States, according to a new study of global firearm ownership*. The Washington Post. https://www.washingtonpost.com/news/wonk/wp/2018/06/19/there-are-more-guns-than-people-in-the-united-states-according-to-a-new-study-of-global-firearm-ownership/

Innes, M. (2004). Signal crimes and signal disorders: notes on deviance as communicative action. *The British Journal of Sociology*, *55*(3), 335-355. https://doi.org/10.1111/j.1468-4446.2004.00023.x

Intravia, J., Wolff, K. T., Paez, R., & Gibbs, B. R. (2017). Investigating the relationship between social media consumption and fear of crime: A partial analysis of mostly young adults. *Computers in Human Behavior*, *77*, 158-168. https://doi.org/10.1016/j.chb.2017.08.047

Irvin-Erickson, Y., Malik, A. A., Kamiran, F., & Natarajan, M. (2020). Utility of ecological momentary assessments to collect data on fear of crime. *International Journal of Comparative and Applied Criminal Justice*, *44*(4), 307-319. https://doi.org/10.1080/01924036.2020.1719532

Iyengar, S. (1989). How citizens think about national issues: A matter of responsibility. American *Journal of Political Science*, *33*(4), 878-900. https://doi.org/10.2307/2111113

Iyengar, S. (1990). Framing responsibility for political issues: The case of poverty. *Political Behavior*, *12*. 19-40. https://doi.org/10.1007/BF00992330

Iyengar, S. (1991). *Is anyone responsible? How television frames political issues*. University of Chicago Press.

Iyengar, S. (1996). Framing responsibility for political issues. *The ANNALS of the American Academy of Political and Social Science*, *546*, 59-70. https://doi.org/10.1177/0002716296546001006

Iyengar, S., & Kinder, D. R. (1987). *News that matters: Television and American opinion*. University of Chicago Press.

Izard, C. E. (2009). Emotion theory and research: Highlights, unanswered questions, and emerging issues. *Annual Review of Psychology*, *60*(1), 1-25. https://doi.org/10.1146/annurev.psych.60.110707.163539

Jackson, J. (2006). Introducing fear of crime to risk research. *Risk Analysis: An Official Publication of the Society for Risk Analysis*, *26*(1), 253-264. https://doi.org/10.1111/j.1539-6924.2006.00715.x

Jackson, J. (2011). Revisiting risk sensitivity in the fear of crime. *Journal of Research in Crime and Delinquency*, *48*(4), 513-537. https://doi.org/10.1177/0022427810395146

Jackson, J. (2013). Cognitive closure and risk sensitivity in the fear of crime. *Legal and Criminological Psychology*, *20*(2), 222-240. https://doi.org/10.1111/lcrp.12031

Jackson, J., & Gouseti, I. (2015). Threatened by violence: Affective and Cognitive reactions to violent victimization. *Journal of Interpersonal Violence*, *31*(18), 2987-3016. https://doi.org/10.1177/0886260515584336

James, W. (1890). *The principles of psychology*. Holt.

Jasper, J. M., & Poulsen, J. D. (1995). Recruiting strangers and friends: Moral shocks and social networks in animal rights and anti-nuclear protests. *Social Problems*, *42*(4), 493-512. https://doi.org/10.2307/3097043

Johns Hopkins Center for Gun Violence Solutions. (2024, September 12). *Continuing trends: Five key takeaways from 2023 CDC provisional gun violence data*. https://publichealth.jhu.edu/center-for-gun-violence-solutions/2024/continuing-trends-five-key-takeaways-from-2023-cdc-provisional-gun-violence-data#:~:text=1.,violence%20in%20a%20single%20year

Jones, M. D. (2013). Cultural characters and climate change: How heroes shape our perception of climate science. *Social Science Quarterly*, *95*(1), 1-39. https://doi.org/10.1111/ssqu.12043

Jones, M. D. (2014). Communication climate change: Are stories better than "Just the facts"? *Policy Studies Journal*, *42*(4), 644-673. https://doi.org/10.1111/psj.12072

Joslyn, M. R., & Haider-Markel, D. P. (2018). The direct and moderating effects of mass shooting anxiety on political and policy attitudes. *Research & Politics*, *5*(3), Article 2053168018794060. https://doi.org/10.1177/2053168018794060

Kaba, M. (2020, June 12). *Yes, we mean literally abolish the police*. New York Times. https://www.nytimes.com/2020/06/12/opinion/sunday/floyd-abolish-defund-police.html

Kam, C. D., & Kinder, D. R. (2007). Terror and ethnocentrism: Foundations of American support for the war on terrorism. *Journal of Politics*, *69*(2), 320-338. https://doi.org/10.1111/j.1468-2508.2007.00534.x

Kambam, P. R., Pozios, V. K., Bond, K. L., & Ostermeyer, B. K. (2020). The Influence of Media Related to Mass Shootings. *Psychiatric Annals*, *50*(9), 393-398. https://doi.org/10.3928/00485713-20200811-01

Kaminski, R. J., Koons-Witt, B. A., Thompson, N. S., & Weiss, D. (2010). The impacts of the Virginia Tech and Northern Illinois University shootings on fear of crime on campus. *Journal of Criminal Justice*, *38*(1), 88-98. https://doi.org/10.1016/j.jcrimjus.2009.11.011

Karpinska-Krakowiak, M., Trzebinski, W., Lim, H., & Marciniak, B. (2023). The dis-matching effect: How argumentation type and message design influence persuasion for emerging technology products. *Journal of Business Research*, 168, Article 114207. https://doi.org/10.1016/j.jbusres.2023.114207

Katsiyannis, A., Rapa, L. J., Whitford, D.K., & Scott, S. N. (2023). An examination of US school mass shootings, 2017-2022: Findings and implications. *Advances in Neurodevelopmental Disorders*, *7*, 66-76. https://doi.org/10.1007/s41252-022-00277-3

Kay, C. S. (2025). Why you shouldn't trust data collected on MTurk. *Behavior Research Methods*, *57*, Article 340. https://doi.org/10.3758/s13428-025-02852-7

Kendi, I. (2016). *Stamped from the beginning: The definitive history of racist ideas in America*. Bold Type Books.

Kim, E. A., Ratneshwar, S., & Thorson, E. (2017). Why narrative ads work: An integrated process explanation. *Journal of Advertising*, *46*(2), 283-296. https://doi.org/10.1080/00913367.2016.1268984

Kim, E. A., Shoenberger, H., Kwon, E. P., & Ratneshwar, S. (2022). A narrative approach for overcoming the message credibility problem in green advertising. *Journal of Business Research*, *147*, 449-461. https://doi.org/10.1016/j.jbusres.2022.04.024

Kim, H. S., Bigman, C. A., Leader, A. E., Lerman, C., & Cappella, J. N. (2012). Narrative health communication and behavior change: The influence of exemplars in the news on

intention to quit smoking. *Journal of Communication*, *62*(3), 473-492. https://doi.org/10.1111/j.1460-2466.2012.01644.x

Kim, S.-H. (2015). Who is responsible for a social problem? News framing and attribution of responsibility. *Journalism & Mass Communication Quarterly*, *92*(3), 554-558. https://doi.org/10.1177/1077699015591956

Kim, S.-H., & Willis, L. A. (2007) Talking about obesity: News framing of who is responsible for causing and fixing the problem. *Journal of Health Communication*, *12*(4), 359-76. http://dx.doi.org/10.1080/10810730701326051

Kim, S.-H., Carvalho, J. P., & Davis, A. C. (2010). Talking about poverty: News framing of who is responsible for causing and fixing the problem. *Journalism & Mass Communication Quarterly*, *87*(3-4), 563-581. https://doi.org/10.1177/107769901008700308

Kim, S.-H., Shanahan, J., & Choi, D. H. (2012). TV news framing supports societal poverty solutions. *Newspaper Research Journal*, *33*(1), 101-112. https://doi.org/10.1177/073953291203300108

Kingdon, J. W. (2011). *Agendas, alternatives, and public policies* (2nd ed.). Longman.

Kleemans, M., Schaap, G., & Suijkerbuijk, M. (2018). Getting youngsters hooked on news: The effects of narrative news on information processing and appreciation in different age groups. *Journalism Studies*, *19*(14), 2108-2125. https://doi.org/10.1080/1461670X.2017.1324316

Koomen, W., Visser, M., & Stapel, D. A. (2000). The credibility of newspapers and fear of crime. *Journal of Applied Social Psychology*, *30*(5), 921-934. https://doi.org/10.1111/j.1559-1816.2000.tb02503.x

Kostelka, F., & Blais, A. (2021). The Generational and Institutional Sources of the Global Decline in Voter Turnout. *World Politics*, *73*(4), 629-667. https://doi.org/10.1017/S0043887121000149

Kreuter, M. W., Green, M. C., Cappella, J. N., Slater, M. D., Wise, M. E., Storey, D., & Woolley, S. (2007). Narrative communication in cancer prevention and control: A framework to guide research and application. *Annals of Behavioral Medicine*, *33*(3), 221-235. https://doi.org/10.1007/BF02879904

Krouse, W. J., & Richardson, D. J. (2015). *Mass murder with firearms: Incidents and victims, 1999-2013*. Congressional Research Service. https://static1.squarespace.com/static/5b7ea2794cde7a79e7c00582/t/62e65c54f5e3863cb5af908e/1659264084949/mass+murder+firearms.pdf

LaFree, G., Dugan, L., & Miller, E. (2015). *Putting terrorism in context: Lessons from the Global Terrorism Database*. Routledge.

Lang, P. J. (1995). The emotion probe: Studies of motivation and attention. *American Psychologist*, *50*(5), 372-385. https://doi.org/10.1037/0003-066X.50.5.372

Lang, P. J., & Bradley, M. M. (2008). Appetitive and defensive motivation is the substrate of emotion. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 51-66). Psychology Press. https://doi.org/10.4324/9780203888148

Lankford, A., & Silver, J. (2020). Why have public mass shootings become more deadly? Assessing how perpetrators' motives and methods have changed over time. *Criminology and Public Policy*, *19*(1), 37-60. https://doi.org/10.1111/1745-9133.12472

LaRose, J., Torres, J. A., & Barton, M. S. (2021). Changing media framings of school shootings: A case study of the Parkland school shooting. *Journal of Mass Violence Research*, *1*(1), 44-61. https://doi.org/10.53076/JMVR11874

Larsen, J. T., Berntson, G. G., Poehlmann, K. M., Ito, T. A., & Cacioppo, J. T. (2008). The psychophysiology of emotion. In R. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *The handbook of emotions* (3rd ed., pp. 180-195). Guilford Press.

Lazarus, R. S. (1991). *Emotion and adaptation*. Oxford University Press.

Lazić, A., & Žeželj, I. (2021). A systematic review of narrative interventions: Lessons for countering anti-vaccination conspiracy theories and misinformation. *Public Understanding of Science*, *30*(6), 644-670. https://doi.org/10.1177/09636625211011881

Le Bars, S. (2024, July 15). *In the US, guns symbolize the culture war between Democrats and Republicans*. Le Monde. https://www.lemonde.fr/en/international/article/2024/07/15/in-the-us-guns-symbolize-the-culture-war-between-democrats-and-republicans_6684812_4.html?utm_source=chatgpt.com#

Lecheler, S., & de Vreese, C. H. (2019). *News framing effects*. Routledge.

Lee, E. J. (2012). That's not the way it is: How user-generated comments on the news affect perceived media bias. *Journal of Computer-Mediated Communication*, *18*(1), 32-45. https://doi.org/10.1111/j.1083-6101.2012.01597.x

Lee, M. (2008). The enumeration of anxiety. Power, knowledge and fear of crime. In S. Farrall & M. Lee (Eds.), *Fear of crime: Critical voices in an age of anxiety* (pp. 32-44). Routledge-Cavendish.

Lee, S., & Lang, A. (2009). Discrete emotion and motivation: relative activation in the appetitive and aversive motivational systems as a function of anger, sadness, fear, and joy during

televised information campaigns. *Media Psychology*, *12*(2), 148-170. https://doi.org/10.1080/15213260902849927

León, S., Jurado, I., & Garmendia Madariaga, A. (2018). Passing the buck? Responsibility attribution and cognitive bias in multilevel democracies. *West European Politics*, *41*(3), 660-682. https://doi.org/10.1080/01402382.2017.1405325

Leshner, G., Bolls, P., Gardner, E., Moore J., & Kreuter, M. (2018). Breast cancer survivor testimonies: Effects of narrative and emotional valence on affect and cognition. *Cogent Social Sciences*, *4*(1), Article 1426281. https://doi.org/10.1080/23311886.2018.1426281

Leung, M. M., Green, M. C., Tate, D. F., Cai, J., & Ammerman, A. (2017). Fight for Your Right to Fruit©: Psychosocial outcomes of a manga comic promoting fruit consumption in middle-school youth. *Health Communication*, *32*(5), 533-540. https://doi.org/10.1080/10410236.2016.1211074

Leverentz, A. (2012). Narratives of crime and criminals: How places socially construct the crime problem. *Sociological Forum*, *27*(2), 348-371. https://doi.org/10.1111/j.1573-7861.2012.01321.x

Li, X., Yuan, P., & Gao, B. (2023). A tale of mass shootings: Does city name matter or/and distance matter? *International Journal of Hospitality Management*, *111*, Article 103489. https://doi.org/10.1016/j.ijhm.2023.103489

Liberman, N., & Trope, Y. (2008). The psychology of transcending the here and now. *Science*, *322*(5905), 1201-1205. https://doi.org/10.1126/science.1161958

Liberman, N., Trope, Y., & Stephan, E. (2007). Psychological distance. In A.W. Kruglanski & E.T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (pp. 353-383). Guilford Press.

Lister, R. (2007). Inclusive citizenship: Realizing the potential. *Citizenship Studies*, *11*(1), 49-61. https://doi.org/10.1080/13621020601099856

Liviatan, I., Trope, Y., & Liberman, N. (2008). Interpersonal similarity as a social distance dimension: Implications for perception of others' actions. *Journal of Experimental Social Psychology*, *44*(5), 1256-1269. https://doi.org/10.1016/j.jesp.2008.04.007

Lopez, B. E., Crimmins, D. M., & Haskins, P. A. (2020, April 6). *Advancing mass shooting research to inform practice national institute of justice*. https://nij.ojp.gov/topics/articles/advancing-mass-shooting-research-inform-practice?utm_source=chatgpt.com

Lott, J. R. Jr. (2015). The FBI's misinterpretation of the change in mass public shootings. *Academy of Criminal Justice Sciences Today*, *40*(2), 18-29. http://dx.doi.org/10.2139/ssrn.2524731

Lott, John R., Jr., & Landes, W. M. *Multiple Victim Public Shootings*. SSRN. https://ssrn.com/abstract=272929

Lowe, S. R., & Galea, S. (2017). The mental health consequences of mass shootings. *Trauma, Violence, & Abuse*, *18*(1), 62-82. https://doi.org/10.1177/1524838015591572

Lowrey, W., Brozana, A., & Mackay, J. B. (2008). Toward a measure of community journalism. *Mass Communication and Society*, *11*(3), 275-299. https://doi.org/10.1080/15205430701668105

Lu, A. S., Green, M. C., & Alon, D. (2023). The effect of animated Sci-Fi characters' racial presentation on narrative engagement, wishful identification, and physical activity intention among children. *The Journal of communication*, *74*(2), 160-172. https://doi.org/10.1093/joc/jqad030

Luca, M., Malhotra, D., & Poliquin, C. (2020). The impact of mass shootings on gun policy. *Journal of Public Economics*, *181*. https://doi.org/10.1016/j.jpubeco.2019.104083

Lund, N. (2014, April 17). *The Second Amendment and the inalienable right to self-defense*. The Heritage Foundation. https://www.heritage.org/the-constitution/report/the-second-amendment-and-the-inalienable-right-self-defense

Lupton, D., & Tulloch, J. (1999). Theorizing fear of crime: Beyond the rational/irrational opposition. *The British Journal of Sociology*, *50*(3), 507-523. https://doi.org/10.1111/j.1468-4446.1999.00507.x

Machill, M., Köhler, S., & Waldhauser, M. (2007). The use of narrative structures in television news: An experiment in innovative forms of journalistic presentation. *European Journal of Communication*, *22*(2), 185-205. https://doi.org/10.1177/0267323107076769

Major, L. H. (2018). Mental health news: How frames influence support for policy and civic engagement intentions. *Journal of Health Communication*, *23*(1), 52-60. https://doi.org/10.1080/10810730.2017.1411994

Markus, H., & Zajonc, R. B. (1985). The cognitive perspective in social psychology. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (3rd ed., pp. 137-230). Random House.

Masters, J. (2022, June 10). *U.S. gun policy: global comparisons*. Council on Foreign Relations. https://www.cfr.org/backgrounder/us-gun-policy-global-comparisons

Mastin, T., Choi, J., Barboza, G., & Post, L. (2007). Newspapers' framing of elder abuse: It's not a family affair. *Journalism & Mass Communication Quarterly*, *84*(4), 777-794.

Matthes, J. (2010). Frames in political communication: Toward clarification of a research program. In A. Stewart (Ed.), *Rethinking communication: Keywords in communication research* (pp. 123-136). Hampton Press.

Matthes, J. (2012). Framing politics: An integrative approach. *American Behavioral Scientist*, *56*(3), 247-259. https://doi.org/10.1177/0002764211426324

Mayo, J., & Leshner, G. (2000). Assessing the credibility of computer-assisted reporting. *Newspaper Research Journal*, *21*(4), 68-82. https://doi.org/10.1177/073953290002100405

Mazzocco, P. M., Green, M. C., Sasota, J. A., & Jones, N. W. (2010). This story is not for everyone: Transportability and narrative persuasion. *Social Psychology and Personality Science*, *1*(*4*), 361-368. https://doi.org/10.1177/1948550610376600

McAllister , C. (2020). *Emotions in motion: The role of emotional flow in narrative persuasion* (Publication No. 27995479) [Master's thesis, University at Buffalo]. ProQuest Dissertations & Theses Global.

McDonald, P., & Charlesworth, S. (2013). Framing sexual harassment through media representations. *Women's Studies International Forum*, *37*, 95-103. https://doi.org/10.1016/j.wsif.2012.11.003

McGinty, E. E., Webster, D. W., & Barry, C. L. (2013). Effects of news media messages about mass shootings on attitudes towards persons with serious mental illness and public support for gun control policies. *American Journal of Psychiatry*, *170*(5), 494-501. https://doi.org/10.1176/appi.ajp.2013.13010014

McGinty, E. E., Webster, D. W., Jarlenski, M., & Barry, C. L. (2014). News media framing of serious mental illness and gun violence in the United States, 1997-2012. *American Journal of Public Health*, *104*(3), 406-413. https://doi.org/10.2105/AJPH.2013.301557

McIntyre, K. (2019). Solutions journalism: The effects of including solution information in news stories about social problems. *Journalism Practice*, *13*(1), 16-34. https://doi.org/10.1080/17512786.2017.1409647

McLaughlin, B., Velez, J. A., & Dunn, J. A. (2019). The political world within: How citizens process and experience political narratives. *Annals of the International Communication Association*, *43*(2), 156-172. https://doi.org/10.1080/23808985.2019.1597635

McMillan, J., & Bernstein, M. (2022). Beyond gun control: Mapping gun violence prevention logics. *Sociological Perspectives*, *65*(1), 177-195. https://doi.org/10.1177/07311214211010845

McQueen, A., Kreuter, M. W., Kalesan, B., & Alcaraz, K. (2011). Understanding narrative effects: The impact of breast cancer survivor stories on message processing: Attitudes and believes in African American women. *Health Psychology*, *30*(6), 674-682. https://doi.org/10.1037/a0025395

Mears, D. P., Pickett, J., Golden, K., Chiricos, T., & Gertz, M. (2013). The effect of interracial contact on Whites' perceptions of victimization risk and Black criminality. *Journal of Research in Crime and Delinquency*, *50*(2), 272-299. https://doi.org/10.1177/0022427811431156

Mellado, C., Hellmueller, L., & Donsbach, W. (Eds.). (2017). *Journalistic role performance: Concepts, contexts, and methods.* Routledge. https://doi.org/10.4324/9781315768854

Mellberg, J., Chataway, M. L., & Ball, M. J. (2025). Fear from a distance: Testing a new model of psychological distance and fear of crime. *Psychology, Crime & Law*, *31*(10), 1248-1268. https://doi.org/10.1080/1068316X.2024.2345687

Mellberg, J., Chataway, M. L., Ball, M. J., & Miles-Johnson, T. (2022). Psychological distance and fear of crime: Towards a new understanding of risk perception formation. *Journal of Criminology*, *55*(3), 377-399. https://doi.org/10.1177/26338076221105899

Meltzer, C. E., Eberl, J. M., Theorin, N., Heidenreich, T., Strömbäck, J., Boomgaarden, H. G., & Schemer, C. (2020). Media effects on policy preferences toward free movement: evidence from five EU member states. *Journal of Ethnic and Migration Studies*, *47*(15), 3390-3408. https://doi.org/10.1080/1369183X.2020.1778454

Melzer, S. (2009). *Gun crusaders: The NRA's culture war*. New York University Press.

Memon, M. A., Thurasamy, R., Ting, H., Cheah, J.-H., Chuah, F. (2024). Control Variables: A review and proposed guidelines. *Journal of Applied Structural Equation Modeling*, *8*(2), 1-18. https://doi.org/10.47263/jasem.8(2)01

Mendelsohn, J., Budak, C., & Jurgens, D. (2021). Modeling framing in immigration discourse on social media. In K. Toutanova, A. Rumshisky, L. Zettlemoyer, D. Hakkani-Tur, I. Beltagy, S. Bethard, R. Cotterell, T. Chakraborty, & Y. Zhou (Eds.), *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies* (pp. 2219-2263). Association for Computational Linguistics. https://doi.org/10.18653/v1/2021.naacl-main.179

Merolla, J. L., & Zechmeister, E. J. (2009). Democracy at risk: How terrorist threats affect the public. University of Chicago Press. https://doi.org/10.7208/chicago/9780226520568.001.0001

Merry, M. K. (2023). The prospects for gun policy change following mass shootings. *Politics & Policy*, *51*(3), 426-436. https://doi.org/10.1111/polp.12531

Metzger, Z. (2024, October 23). *The state of local news: The 2024 report*. Medill Local News Initiative. https://localnewsinitiative.northwestern.edu/projects/state-of-local-news/2024/report/

Metzl, J. M., & MacLeish, K. T. (2015). Mental illness, mass shootings, and the politics of American firearms. *American Journal of Public Health*, *105*(2), 240-249. https://doi.org/10.2105/AJPH.2014.302242

Metzl, J. M., Piemonte, J., & McKay, T. (2021). Mental illness, mass shootings, and the future of psychiatric research into American gun violence. *Harvard Review of Psychiatry*, *29*(1). 81-89. https://doi.org/10.1097/HRP.0000000000000280

Metzler, H., & Garcia, D. (2023). Social drivers and algorithmic mechanisms on digital media. *Perspectives on Psychological Science*, *19*(5), 735-748. https://doi.org/10.1177/17456916231185057

Meyer, P. (1988). Defining and measuring credibility of newspapers: Developing an index. *Journalism Quarterly*, *65*(3), 567-574. https://doi.org/10.1177/107769908806500301

Meyers, M. (1997). *News coverage of violence against women: Engendering blame*. Sage Publishing.

Meyers, M. (2004). African American women and violence: Gender, race, and class in the news. *Critical Studies in Media Communication*, *21*(2), 95-118. https://doi.org/10.1080/0739318041000168802 9

Moran, M. B., Murphy, S. T., Frank, L., & Baezconde-Garbanati, L. (2013). The ability of narrative communication to address health-related social norms. *International Review of Social Research*, *3*(2), 131-149. https://doi.org/10.1515/irsr-2013-0014

Moss, A., Rosenzweig, C., Jaffe, S. N., Gautam, R., Robinson, J., & Litman, L. (2021). *Bots or inattentive humans? Identifying sources of low-quality data in online platforms* [Preprint]. PsyArXiv. https://doi.org/10.31234/osf.io/wr8ds

Moyer-Gusé, E. (2008). Toward a theory of entertainment persuasion: Explaining the persuasive effects of entertainment-education messages. *Communication Theory*, *18*(3), 407-425. https://doi.org/10.1111/j.1468-2885.2008.00328.x

Moyer-Gusé, E., & Nabi, R. L. (2010). Explaining the effects of narrative in an entertainment television program: Overcoming resistance to persuasion. *Human Communication Research*, *36*(1), 26-52. https://doi.org/10.1111/j.1468-2958.2009.01367.x

Moyer-Gusé, E., Chung, A. H., & Jain, P. (2011). Identification with characters and discussion of taboo topics after exposure to an entertainment narrative about sexual health. *Journal of communication*, *61*(3), 387-406. https://doi.org/10.1111/j.1460-2466.2011.01551.x

Muhamad, J. W. (2016). *Beyond passive entertainment: Evaluating the role of active entertainment-education in the prevention of commercial sexual exploitation of children* (Publication No. 10110417) [Doctoral dissertation, University of Miami]. ProQuest Dissertations & Theses Global.

Murphy, S. T. (2021). When life gives you lemons: What to do when something goes wrong in your carefully planned research and how to avoid disasters in the first place. In L. B. Frank & P. Falzone (Eds.), *Entertainment-education behind the scenes: Case studies for*

theory and practice (pp. 211-221). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-63614-2_13

Murphy, S. T., Frank, L. B., Chatterjee, J. S. & Baezconde-Garbanati, L. (2013). Narrative versus nonnarrative: The role of identification, transportation, and emotion in reducing health disparities. *Journal of Communication*, *63*(1), 116-137. https://doi.org/10.1111/jcom.12007

Murphy, S. T., Frank, L. B., Chatterjee, J. S., Moran, M. B., Zhao, N., Amezola de Herrera, P., & Baezconde-Garbanati, L. A. (2015). Comparing the relative efficacy of narrative vs nonnarrative health messages in reducing health disparities using a randomized trial. *American Journal of Public Health*, *105*(10), 2117-2123. https://doi.org/10.2105/AJPH.2014.302332

Murphy, S. T., Frank, L. B., Moran, M. B., & Patnoe-Woodley, P. (2011). Involved, transported, or emotional? Exploring the determinants of change in knowledge, attitudes, and behavior in entertainment-education. *Journal of Communication, 61*(3), 407-431. https://doi.org/10.1111/j.1460-2466.2011.01554.x

Muschert, G. W. (2010) School shootings. In Herzog-Evans M (Ed.), *Transnational criminology manual* (Vol. 2, pp. 73–89). Wolf Legal Publishing.

Nabi, R. L. (2010). The case for emphasizing discrete emotions in communication research. *Communication Monographs*, *77*(2), 153-159. https://doi.org/10.1080/03637751003790444

Nabi, R. L., & Keblusek, L. (2014). Inspired by hope, motivated by envy: Comparing the effects of discrete emotions in the process of social comparison to media figures. *Media Psychology*, *17*(2), 208-234. https://doi.org/10.1080/15213269.2013.878663

Näsi, M., Tanskanen, M., Kivivuori, J., Haara, P., & Reunanen, E. (2020). Crime news consumption and fear of violence: The role of traditional media, social media, and alternative information sources. *Crime & Delinquency*, *67*(4), 574-600. https://doi.org/10.1177/0011128720922539

Nelson, T. E., Oxley, Z. M., & Clawson, R. A. (1997). Toward a psychology of framing effects. *Political Behavior*, *19*(3), 221-246. https://doi.org/10.1023/A:1024834831093

Newman, B. J. (2015). A crisis in context: Local conditions, national events, and economic policy mood. *American Politics Research*, *43*(6), 1041-1073. https://doi.org/10.1177/1532673X15578453

Newman, B. J., & Hartman, T. K. (2019). Mass shootings and public support for gun control. *British Journal of Political Science*, *49*(4), 1527-1553. https://doi.org/10.1017/S0007123417000333

Newman, N. (2025, June 17). *Overview and key findings of the 2025 Digital News Report*. Reuters Institute. https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2025/dnr-executive-summary?utm_source=chatgpt.com

Niederdeppe, J., Shapiro, M. A., & Porticella, N. (2011). Attributions of responsibility for obesity: Narrative communication reduces reactive counterarguing among liberals. *Human Communication Research*, *37*(3), 295-323. https://doi.org/10.1111/j.1468-2958.2011.01409.x

Niederdeppe, J., Shapiro, M. A., Kim, H. K., Bartolo, D., & Porticella, N. (2014). Narrative persuasion, causality, complex integration, and support for obesity policy. *Health communication*, *29*(5), 431-444. https://doi.org/10.1080/10410236.2012.761805

Noetzel, S., Mussalem Gentile, M. F., Lowery, G., Zemanova, S., Lecheler, S., & Peter, C. (2023). Social campaigns to social change? Sexual violence framing in U.S. news before and after #metoo. *Journalism*, *24*(6), 1232-1262. https://doi.org/10.1177/14648849211056386

Nordanger, D. Ø., Hysing, M., Posserud, M. B., Lundervold, A. J., Jakobsen, R., Olff, M., & Stormark, K. M. (2013). Posttraumatic responses to the July 22, 2011 Oslo Terror among Norwegian high school students. *Journal of Traumatic Stress*, *26*(6), 679-685. https://doi.org/10.1002/jts.21856

Norris, P. (2002). *Democratic phoenix: Reinventing political activism*. Cambridge University Press.

Obregon, R., Muhamad, J. W., & Lapsansky, C. (2021). Strengthening integration of communication theory into entertainment-education practice: Reflections from the La Peor Novela case study. In L. B. Frank & P. Falzone (Eds.), *Entertainment-education behind the scenes: Case studies for theory and practice* (pp. 137-154). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-63614-2_9

Oliver, M. B., Dillard, J. P., Bae, K., & Tamul, D. J. (2012). The effect of narrative news format on empathy for stigmatized groups. *Journalism & Mass Communication Quarterly*, *89*(2), 205-224. https://doi.org/10.1177/1077699012439020

Ophir, Y., Brennan, E., Maloney, E. K., & Cappella, J. N. (2017). The effects of graphic warning labels' vividness on message engagement and intentions to quit smoking. *Communication Research*, *46*(5), 619-638. https://doi.org/10.1177/0093650217700226

Ophir, Y., Sangalang, A., & Cappella, J. N. (2021). The emotional flow hypothesis in entertainment-education narratives: Theory, empirical evidence, and open questions. In

L. B. Frank & P. Falzone (Eds.), *Entertainment-education behind the scenes: Case studies for theory and practice* (pp. 103-120). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-63614-2_7

Ophir, Y., Walter, D., Arnon, D., Lokmanoglu, A., Tizzoni, M., Carota, J., D'Antiga, L., & Nicastro E. (2021). The framing of COVID-19 in Italian media and its relationship with community mobility: A mixed-method approach. *Journal of Health Communication*, *26*(3), 161-173. https://doi.org/10.1080/10810730.2021.1899344

Ostfeld, M., & Mutz, D. (2014). Revisiting the effects of case reports in the news. *Political Communication*, *31*(1), 53-72. https://doi.org/10.1080/10584609.2013.799106

Parker, K., Horowitz, J. M. Igielnik, R., Oliphant, J. B., & Brown, A. (2017, June 22). *America's complex relationship with guns: An in-depth look at the attitudes and experiences of U.S. adults*. Pew Research Center. https://www.pewresearch.org/social-trends/2017/06/22/views-on-gun-policy/

Patterson, M., & Monroe, K. R. (1998). Narrative in political science. *Annual Review of Political Science*, *1*(1), 315-331. https://doi.org/10.1146/annurev.polisci.1.1.315

Perkins, D.D., Taylor, R.B. (2002). Ecological assessments of community disorder: Their relationship to fear of crime and theoretical implications. In T. A. Revenson, A. R. D'Augelli, S. E. French, D. L. Hughes, D. Livert, E. Seidman, M. Shinn, & H. Yoshikawa (Eds.), *Ecological research to promote social change* (pp. 127-170). Springer. https://doi.org/10.1007/978-1-4615-0565-5_6

Petraglia, J. (2007). Narrative intervention in behavior and public health. *Journal of Health Communication*, *12*, 493-505. https://doi.org/10.1080/10810730701441371

Pew Research Center. (2023a, June 28). *Gun Violence Widely Viewed as a Major--and Growing--National Problem*. https://www.pewresearch.org/politics/2023/06/28/gun-violence-widely-viewed-as-a-major-and-growing-national-problem/

Pew Research Center. (2023b, November 10). *Digital news fact sheet*. https://www.pewresearch.org/journalism/fact-sheet/digital-news/

Pew Research Center. (2024, May 23). *Public's positive economic ratings slip; Inflation still widely viewed as major problem*. https://www.pewresearch.org/politics/2024/05/23/publics-positive-economic-ratings-slip-inflation-still-widely-viewed-as-major-problem/

Pew Research Center. (2025, September 25). *News Platform Fact Sheet*. https://www.pewresearch.org/journalism/fact-sheet/news-platform-fact-sheet/

Pfaffendorf, J., & Davis, A. P. (2021). Masculinity, ritual, and racialized status threat: Examining mass shooter manifestos using structural topic models. *Sociological Inquiry*, *91*(2), 287-312. https://doi.org/10.1111/soin.12409

Pharr, S. J., & Putnam, R. D. (2000). *Disaffected democracies: What's troubling the trilateral countries?* Princeton University Press.

Polletta, F. (2015). Characters in politics. *Storytelling, Self, Society*, *11*(1), 34-55. https://doi.org/10.13110/storselfsoci.11.1.0034

Polletta, F., Chen, P. C. B., Gardner, B. G., & Motes, A. (2011). The sociology of storytelling. *Annual review of sociology*, *37*(1), 109-130. https://doi.org/10.1146/annurev-soc-081309-150106

Porfiri, M., Sattanapalle, R. R., Nakayama, S., Macinko, J., & Sipahi, R. (2019). Media coverage and firearm acquisition in the aftermath of a mass shooting. *Nature Human Behaviour*, *3*(9), 913-921. https://doi.org/10.1038/s41562-019-0636-0

Pratt, T. C., & Cullen, F. T. (2005). Assessing macro-level predictors and theories of crime: A meta-analysis. *Crime and Justice*, *32*, 373-450. https://doi.org/10.1086/655357

Pridemore, W. A. (2002). What we know about social structure and homicide: A review of the theoretical and empirical literature. *Violence and Victims*, *17*(2), 127-156. https://doi.org/10.1891/vivi.17.2.127.33651

Pridemore, W. A. (2008). A methodological addition to the cross-national empirical literature on social structure and homicide: A first test of the poverty-homicide thesis. *Criminology*, *46*(1), 133-154. https://doi.org/10.1111/j.1745-9125.2008.00106.x

Pridemore, W. A. (2011). Poverty matters: A reassessment of the inequality-homicide relationship in cross-national studies. *The British Journal of Criminology*, *51*(5), 739-772. https://doi.org/10.1093/bjc/azr019

ProCon. (2025, March 21). *Gun control: Should more gun control laws be enacted?* https://www.britannica.com/procon/gun-control-debate

Puhl, R. M., & Brownell, K. D. (2003). Psychosocial origins of obesity stigma: Toward changing a powerful and pervasive bias. *Obesity Reviews*, *4*(4), 213-227. https://doi.org/10.1046/j.1467-789X.2003.00122.x

Pyne, K. (2017). *Mass shootings and media framing* [Unpublished manuscript]. Department of Social Science, University College London. https://doi.org/10.13140/RG.2.2.23754.29121

Ramasubramanian, S., & Martinez, A. R. (2017). News Framing of Obama, Racialized Scrutiny, and Symbolic Racism. *Howard Journal of Communications*, *28*(1), 36-54. https://doi.org/10.1080/10646175.2016.1235519

Ratcliff, C. L., & Sun, Y. (2020). Overcoming resistance through narratives: Findings from a meta-analytic review. *Human Communication Research*, *46*(4), 412-443. https://doi.org/10.1093/hcr/hqz017

Ravaja, N., Saari, T., Kallinen, K., & Laarni, J. (2006). The role of mood in the processing of media messages from a small screen: Effects on subjective and physiological responses. *Media Psychology*, *8*(3), 239-265. https://doi.org/10.1207/s1532785xmep0803_3

Rim, S., Hansen, J., & Trope, Y. (2013). What happens why? Psychological distance and focusing on causes versus consequences of events. *Journal of Personality and Social Psychology*, *104*(3), 457-472. https://doi.org/10.1037/a0031024

Rivas-Rodriguez, M. (2011). Communities, cultural identity, and the news. In W. Lowrey & P. J. Gade (Eds.), *Changing the news: The forces shaping journalism in uncertain times* (pp. 102-117). Routledge. https://doi.org/10.4324/9780203868577

Robertson, C. E., Pröllochs, N., Schwarzenegger, K., Pärnamets, P., Van Bavel, J. J., & Feuerriegel, S. (2023). Negativity drives online news consumption. *Nature Human Behaviour*, *7*(5), 812-822. https://doi.org/10.1038/s41562-023-01538-4

Robinson, J., Rosenzweig, C., Moss, A. J., Litman, L. (2019). Tapped out or barely tapped? Recommendations for how to harness the vast and largely unused potential of the Mechanical Turk participant pool. *PLoS ONE*, *14*(12): e0226394. https://doi.org/10.1371/journal.pone.0226394

Roeder, O. (2016, January 21). *The phrase 'mass shooting' belongs to the 21st century*. FiveThirtyEight. https://fivethirtyeight.com/features/we-didnt-call-them-mass-shootings-until-the-21st-century/?ex_cid=538twitter

Rucinski, D. (1992). Personalized bias in news: The potency of the particular? *Communication Research*, *19*(1), 91-108. https://doi.org/10.1177/009365092019001004

Rudolph, T. J. (2006). Triangulating political responsibility: The motivated formation of responsibility judgments. *Political Psychology*, *27*(1), 99-122. https://doi.org/10.1111/j.1467-9221.2006.00451.x

Rudolph, T. J. (2015). The meaning and measurement of responsibility attributions. *American Politics Research, 44*(1), 106-130. https://doi-org.ezproxy.lib.ou.edu/10.1177/1532673X15595460

Ryan, W. (1976). *Blaming the victim*. Vintage.

Sampson, R. J. (1987). Communities and Crime. In T. Hirschi & M. Gottfredson (Eds.), *Positive Criminology*, (pp. 91-114). Sage.

Sampson, R. J. (2019). Neighborhood effects and beyond: Explaining the paradoxes of inequality in the changing American metropolis. *Urban Studies*, *56*(1), 3-32. https://doi.org/10.1177/0042098018795363

Sampson, R. J., & Groves, W. B. (1989). Community structure and crime: Testing social-disorganization theory. *American Journal of Sociology*, *94*(4), 774-802. https://doi.org/10.1086/229068

Sanders, N. E., & Lei, V. (2018). The role of prior information in inference on the annualized rates of mass shootings in the United States. *Statistics and Public Policy*, *5*(1), 1-8. https://doi.org/10.1080/2330443X.2018.1448733

Sands, J. (2019, October 29). *Local news is more trusted than national news—but that could change*. Knight Foundation. https://knightfoundation.org/articles/local-news-is-more-trusted-than-national-news-but-that-could-change/#:~:text=According%20to%20a%20Knight%2DGallup%20study%2C%20local%20news,also%20better%20at%20reporting%20without%20bias%20(66%25).

Schaeffer, K. (2024, July 24). *Key facts about Americans and guns*. Pew Research Center. https://www.pewresearch.org/short-reads/2023/09/13/key-facts-about-americans-and-guns/

Schäfer, S. (2023). Incidental news exposure in a digital media environment: A scoping review of recent research. *Annals of the International Communication Association*, *47*(2), 242-260. https://doi.org/10.1080/23808985.2023.2169953

Scheff, T. J. (1979). *Catharsis in healing, ritual, and drama*. University of California Press.

Scherr, S., Bachl, M., & de Vreese, C. H. (2019). Searching for watchdogs: Investigating journalistic role performance using latent-class analysis. *Journalism Studies*, *20*(11), 1635-1652. https://doi.org/10.1080/1461670X.2018.1533417

Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication*, *49*(1), 103-122. https://doi.org/10.1111/ j.1460- 2466.1999.tb02784.x

Scheufele, D. A. (2000). Agenda-setting, priming, and framing revisited. Another look at cognitive effects of political communication. *Mass Communication and Society*, *3*(2-3), 297-316. https://doi.org/10.1207/S15327825MCS0323_07

Scheufele, D. A., & Iyengar, S. (2012). The state of framing research: A call for new directions. In K. Kenski & K. H. Jamieson (Eds.), *The Oxford Handbook of Political Communication* (pp. 1-16). Oxford University Press.

Scheufele, D. A., & Tewksbury, D. (2007). Framing, agenda setting, and priming: The evolution of three media effects models. *Journal of Communication*, *57*(1), 9-20. https://doi.org/10.1111/j.1460-2466.2006.00326_5.x

Schildkraut, J, & Muschert, G. W. (2014) Media salience and the framing of mass murder in schools: a comparison of the Columbine and Sandy Hook massacres. *Homicide Studies*, *18*(1), 23-43. https://doi.org/10.1177/1088767913511458

Schildkraut, J. (2016). Mass murder and the mass media: Understanding the construction of the social problem of mass shootings in the US. *Journal of Qualitative Criminal Justice & Criminology*, *4*(1), 1-41. http://dx.doi.org/10.21428/88de04a1.0e3b7530

Schildkraut, J., & Elsass, H. J. (2016). The influence of media on public attitudes. In L. C. Wilson (Ed.), *The Wiley handbook of the psychology of mass shootings* (pp. 115-135). John Wiley & Sons, Inc. https://doi.org/10.1002/9781119048015.ch7

Schildkraut, J., Elsass, H. J., & Meredith, K. (2017). Mass shootings and the media: Why all events are not created equal. *Journal of Crime and Justice*, *41*(3), 223-243. https://doi.org/10.1080/0735648X.2017.1284689

Schildkraut, J., Gruenewald, J., Gilliam, M., Novak, M. (2021). Framing mass shootings as a social problem: A comparison of ideologically and non-ideologically motivated attacks. *Aggression and Violent Behavior*, *60*, Article 101533. https://doi.org/10.1016/j.avb.2020.101533

Schnell, F., & Callaghan, K. (2005). Terrorism, media frames, and framing effects: A macro- and microlevel analysis. In K. Callaghan & F. Schnell (Eds.), *Framing American Politics* (pp. 123-147). University of Pittsburgh Press. https://doi.org/10.2307/j.ctt6wrbqk.10

Schwartz, N. S. (2022). *On target: Gun culture, storytelling, and the NRA*. University of Toronto Press.

Semetko, H. A., & Valkenburg, P. M. (2000). Framing European politics: A content analysis of press and television news. *Journal of Communication*, *50*(2), 93-109. https://doi.org/10.1111/j.1460-2466.2000.tb02843.x

Shan, C., Yu, M., & Xue, K. (2017). Effects of metaphor advertising on brand extension evaluation: Construal level as mediator. *Social Behavior and Personality: An International Journal*, *45*(6), 967-985. https://doi.org/10.2224/sbp.5962

Shaw, C. & McKay, H. (1972). An Ecological Approach to Juvenile Delinquency. In D. Dressler (Ed.), *Readings in Criminology and Penology* (pp. 312-318). Columbia University Press. https://doi.org/10.7312/dres92534-033

Shearer, E., Matsa, K. E., Lipka, M., Eddy, K., & Forman-Katz, N. (2024, May 7). *Americans' changing relationship with local news*. Pew Research Center. https://www.pewresearch.org/journalism/2024/05/07/americans-changing-relationship-with-local-news/

Shen, F., Ahern, L., & Baker, M. (2014). Stories that count: Influence of news narratives on issue attitudes. *Journalism & Mass Communication Quarterly*, *91*(1), 98-117. https://doi.org/10.1177/1077699013514414

Shi, L. (2018). A neglected population: Media consumption, perceived risk, and fear of crime among international students. *Journal of Interpersonal Violence*, *36*(5-6), NP2482-NP2505. https://doi-org.ezproxy.lib.ou.edu/10.1177/0886260518766428

Shoemaker, P. J., & Mayfield, E. K. (1987). Building a theory of news content: A synthesis of current approaches. *Journalism and Communication Monographs*, *103*.

Shoemaker, P. J., & Reese, S. D. (1996). *Mediating the message* (2nd ed.). Longman.

Shultz, J. M., Thoresen, S., Flynn, B. W., Muschert, G. W., Shaw, J. A., Espinel, Z., Walter, F. G., Gaither, J. B., Garcia-Barcena, Y., O'Keefe, K., & Cohen, A. M. (2014). Multiple vantage points on the mental health effects of mass shootings. *Current psychiatry reports*, *16*(9), Article 469. https://doi.org/10.1007/s11920-014-0469-5

Silva, C., & Guedes, I. (2022). The role of the media in the fear of crime: A qualitative study in the Portuguese context. *Criminal Justice Review*, *48*(3), 300-317. https://doi.org/10.1177/07340168221088570

Silva, J. R. (2020). The news media's framing of mass shootings: Gun access, mental illness, violent entertainment, and terrorism. *Criminology, Criminal Justice, Law & Society*, *21*(2), 76-98.

Slater, M. D., & Rouner, D. (2002). Entertainment-education and elaboration likelihood: Understanding the processing of narrative persuasion. *Communication Theory*, *12*(2), 173-191. https://doi.org/10.1111/j.1468-2885.2002.tb00265.x

Slovic, P., Västfjäll, D., Erlandsson, A., & Gregory, R. (2017). Iconic photographs and the ebb and flow of empathic response to humanitarian disasters. *Proceedings of the National Academy of Sciences*, *114*(4), 640-644. https://doi.org/10.1073/pnas.1613977114

Smart, R., & Schell, T. L. (2021, April 15). *Mass shootings in the United States*. Gun Policy in America. https://www.rand.org/research/gun-policy/analysis/essays/mass-shootings.html

Smolej, M., & Kivivuori, J. (2006). The relation between crime news and fear of violence. *Journal of Scandinavian Studies in Criminology and Crime Prevention*, *7*(2), 211-227. https://doi.org/10.1080/14043850601002429

Society of Professional Journalists. (2014). *SPJ code of ethics*. https://www.spj.org/spj-code-of-ethics/

Soderberg, C. K., Callahan, S. P., Kochersberger, A. O., Amit, E., & Ledgerwood, A. (2015). The effects of psychological distance on abstraction: Two meta-analyses. *Psychological Bulletin*, *141*(3), 525-548. https://doi.org/10.1037/bul0000005

Solymosi, R., Bowers, K., & Fujiyama, T. (2015). Mapping fear of crime as a context-dependent everyday experience that varies in space and time. *Legal and Criminological Psychology*, *20*(2), 193-211. https://doi.org/10.1111/lcrp.12076

Soni, A., & Tekin, E. (2023). How do mass shootings affect community wellbeing? *Journal of Human Resources*, 1220-11385R1. https://doi.org/10.3368/jhr.1220-11385R1

Sood, S., Riley, A. H., & Alarcon, K. C. (2017). Entertainment-education and health and risk messaging. In R. Parrott (Ed.), *Oxford research encyclopedia of communication*. Oxford University Press. https://doi.org/10.1093/acrefore/9780190228613.013.245

Sparks, R. (1992b). Reason and unreason in left realism: Some problems in the constitution of the fear of crime. In R. Matthews & J. Young (Eds.), *Issues in realist criminology* (pp. 119-135). Sage.

Sparks, R., Girling, E., & Loader, I. (2001). Fear and everyday urban lives. *Urban Studies*, *38*(5-6), 885-898. https://doi.org/10.1080/00420980123167

Spence, A., Poortinga, W., & Pidgeon, N. (2012). The psychological distance of climate change. *Risk Analysis*, *32*(6), 957-972. https://doi.org/10.1111/j.1539-6924.2011.01695.x

Springer, S. A., & Harwood, J. (2015). The influence of episodic and thematic frames on policy and group attitudes: Mediational analysis. *Human Communication Research*, *41*(2), 226-244. https://doi.org/10.1111/hcre.12045

Strange, J. J., & Leung, C. C. (1999). How anecdotal accounts in news and in fiction can influence judgments of a social problem's urgency, causes, and cures. *Personality and Social Psychology Bulletin*, *25*(4), 436-449. https://doi.org/10.1177/0146167299025004004

Strauss, A. (1959). *Mirrors and masks: The search for identity*. Transaction.

Stroebe, W., Leander, N. P., & Kruglanski, A. W. (2024). Gun ownership and gun violence: A comparison of the United States and Switzerland. *Aggression and Violent Behavior*, *78*, Article 101987. https://doi.org/10.1016/j.avb.2024.101987

Stroud, N. J., Scacco, J. M., & Curry, A. L. (2016). The presence and use of interactive features on news websites. *Digital Journalism*, *4*(3), 339-358. https://doi.org/10.1080/21670811.2015.1042982

Sukalla, F., Shoenberger, H., & Bolls, P. D. (2016). Surprise! An investigation of orienting responses to test assumptions of narrative processing. *Communication Research*, *43*(6), 844-862. https://doi.org/10.1177/0093650215596363

Sun, Y., Krakow, M., John, K. K., Liu, M., & Weaver, J. (2016). Framing obesity: How news frames shape attributions and behavioral responses. *Journal of Health Communication*, *21*(2), 139-147. https://doi.org/10.1080/10810730.2015.1039676

Tankard, J. W., Jr. (2001). The empirical approach to the study of media framing. In S. D. Reese, O. H. Gandy Jr., & A. E. Grant (Eds.), *Framing public life: Perspectives on media and our understanding of the social world* (pp. 95-106). Lawrence Erlbaum.

Tcherni, M. (2011). Structural determinants of homicide: The big three. *Journal of Quantitative Criminology*, 27, 475-496. https://doi.org/10.1007/s10940-011-9134-x

Temmann, L. J., Wiedicke, A., Schaller, S., Scherr, S., & Reifegerste, D. (2021). A systematic review of responsibility frames and their effects in the health context. *Journal of Health Communication*, *26*(12), 828-838. https://doi.org/10.1080/10810730.2021.2020381

Thakker, J., & Durrant, R. (2006). News coverage of sexual offending in New Zealand, 2003. *New Zealand Journal of Psychology*, *35*(1), 28-35.

Theocharis, Y., & van Deth, J. W. (2019). *Political participation in a changing world: Conceptual and empirical challenges in the study of citizen engagement*. Routledge.

Thier, K., Abdenour, J., Walth, B., & Dahmen, N. S. (2021). A narrative solution: The relationship between solutions journalism, narrative transportation, and news trust. *Journalism*, *22*(10), 2511-2530. https://doi.org/10.1177/1464884919876369

Thoresen, S., Flood Aakvaag, H., Wentzel-Larsen, T., Dyb, G., & Kristian Hjemdal, O. (2012). The day Norway cried: Proximity and distress in Norwegian citizens following the 22nd July 2011 terrorist attacks in Oslo and on Utøya Island. *European journal of psychotraumatology*, *3*(1), 19709. https://doi.org/10.3402/ejpt.v3i0.19709

Tilley J., & Hobolt S. B. (2011). Is the government to blame? An experimental test of how partisanship shapes perceptions of performance and responsibility. *Journal of Politics*, *73*(2). 316-330. https://doi.org/10.1017/S0022381611000168

Trompenaars, F., & Hampden-Turner, C. (2012). *Riding the waves of culture: Understanding diversity in global business* (3rd ed.). McGraw Hill.

Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, *117*(2), 440-463. https://doi.org/10.1037/a0018963

Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *Journal of Consumer Psychology*, *17*(2), 83-95. https://doi.org/10.1016/S1057-7408(07)70013-X

Tufte, T. (2008). Fighting AIDS with edutainment: Building on the Soul City experience in South Africa. In J. Servaes (Ed.), *Communication for development and social change* (pp. 327-346). Sage.

U.S. Const. amend. II.

U.S. Const. amend. IV.

U.S. Const. art. I, § 8.

Unnever, J.D., & Cullen, F.T. (2012). White perceptions of whether African Americans and Hispanics are prone to violence and support for the death penalty. *Journal of Research in Crime and Delinquency*, *49*(4), 519-544. https://doi.org/10.1177/0022427811415533

Valentino, N. A., Brader, T., Groenendyk, E. W., Gregorowicz, K., & Hutchings, V. L. (2011). Election night's alright for fighting: The role of emotions in political participation. *The journal of politics*, *73*(1), 156-170. https://doi.org/10.1017/S0022381610000939

van Dalen, A., de Vreese, C. H., & Albaek, E. (2012). Different roles, different content? A four-country comparison of the role conceptions and reporting style of political journalists. *Journalism*, *13*(7), 903-922. https://doi.org/10.1177/1464884911431538

van der Meer, T. W. G., te Grotenhuis, M., & Scheepers, P. L. H. (2009). Three types of voluntary associations in comparative perspective: The importance of studying associational involvement through a typology of associations in 21 European countries. *Journal of Civil Society*, *5*(3), 227-241. https://doi.org/10.1080/17448680903351743

van Deth, J. W. (2001, April 6-11). *Studying political participation: Towards a theory of everything* [Paper presentation]*?* Joint Sessions of Workshops 2001 of the European Consortium for Political Research, Grenoble, France. https://www.researchgate.net/profile/Jan-W-Van-Deth/publication/258239977_Studying_Political_Participation_Towards_a_Theory_of_Everything/links/0deec5278acbb80331000000/Studying-Political-Participation-Towards-a-Theory-of-Everything.pdf

van Krieken, K., & Sanders, J. (2021). What is narrative journalism? A systematic review and an empirical agenda. *Journalism*, *22*(6), 1393-1412. https://doi.org/10.1177/1464884919862056

van Krieken, K., Hoeken, H., & Sanders, J. (2015). From reader to mediated witness: The engaging effects of journalistic crime narratives. *Journalism & Mass Communication Quarterly*, *92*(3), 580-596. https://doi.org/10.1177/1077699015586546

van Laer, T., De Ruyter, K., Visconti, L. M., & Wetzels, M. (2014). The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of consumers' narrative transportation. *Journal of Consumer research*, *40*(5), 797-817. https://doi.org/10.1086/673383

Wagner, M. (2014). Fear and anger in Great Britain: Blame assignment and emotional reactions to the financial crisis. *Political Behavior*, *36*(3), 683-703. https://doi.org/10.1007/s11109-013-9241-5

Wagner, M. W., & Collins, T. P. (2014). Does ownership matter? The case of Rupert Murdoch's purchase of the Wall Street Journal. *Journalism Practice*, *8*(6), 758-771. https://doi.org/10.1080/17512786.2014.882063

Wakslak, C. J., Trope, Y., Liberman, N., & Alony, R. (2006). Seeing the forest when entry is unlikely: Probability and the mental representation of events. *Journal of Experimental Psychology. General*, *135*(4), 641–53. https://doi.org/10.1037/0096-3445.135.4.641

Wang, L., Lipka, M., Matsa, K. E., St. Aubin, C., & Shearer, E. (2024). *How Americans get local political news*. Pew Research Center. https://www.pewresearch.org/journalism/2024/07/24/how-americans-get-local-political-news/?_gl=1*1h1199h*_up*MQ..*_gs*MQ..&gclid=CjwKCAjwxfjGBhAUEiwAKWPwDuPEzRpBRaexAF283NiSajgQ1GO_DUzxmR_M_QTCHx4HKvnrBJjFGBoC4sQQAvD_BwE&gbraid=0AAAAA-ddO9F7Ex5m0cVyrN05Wk3

Warner, T. D., & Shawn R. (2021). What guns mean: Who sees guns as important, essential, and empowering (and why)? *Sociological Inquiry*, *91*(2), 313-346. https://doi.org/10.1111/soin.12408

Warnick, B.R., Johnson, B.A., & Rocha, S. (2010), Tragedy and the meaning of school shootings. *Educational Theory*, *60*(3), 371-390. https://doi.org/10.1111/j.1741-5446.2010.00364.x

Warr, M. (1987). Fear of victimization and sensitivity to risk. *Journal of Quantitative Criminology*, *3*(1), 29-46. https://doi.org/10.1007/BF01065199

Warr, M. (2000). Fear of crime in the United States: Avenues for research and policy. *Criminal Justice*, *4*(4), 451-489.

Weatherred, J. L. (2015). Child sexual abuse and the media: a literature review. *Journal of Child Sexual Abuse*, *24*(1), 16-34. https://doi.org/10.1080/10538712.2015.976302

Weatherred, J. L. (2017). Framing child sexual abuse: a longitudinal content analysis of newspaper and television coverage, *2002-2012. Journal of Child Sexual Abuse*, *26*(1), 3-22. https://doi.org/10.1080/10538712.2016.1257528

Weber, P. (2014). Discussions in the comments section: Factors influencing participation and interactivity in online newspapers' reader comments. *New Media & Society*, *16*(6), 941-957. https://doi.org/10.1177/1461444813495165

Weiner, B. (2006). *Social motivation, justice, and the moral emotions: An attributional approach*. Lawrence Erlbaum Associates.

Welna, D. (2013, April 8). *Some gun control opponents cite fear of government tyranny*. National Public Radio. https://www.npr.org/sections/itsallpolitics/2013/04/08/176350364/fears-of-government-tyranny-push-some-to-reject-gun-control

Wenzel, A. (2020). *Community-centered journalism: Engaging people, exploring solutions, and building trust*. University of Illinois Press.

Wenzel, A. D., & Crittenden, L. (2021). Reimagining local journalism: A community-centered intervention. *Journalism Studies*, *22*(15), 2023-2041. https://doi.org/10.1080/1461670X.2021.1942148

Whitmarsh, L., Xenias, D., & Jones, C. R. (2019). Framing effects on public support for carbon capture and storage. *Palgrave Commun*, *5*(1), Article 17. https://doi.org/10.1057/s41599-019-0217-x

Wikler, D. (2002). Personal and social responsibility for health. *Ethics & International Affairs*, *16*(2), 47-55. https://doi.org/10.1111/j.1747-7093.2002.tb00396.x

Willeck, C., & Mendelberg, T. (2022). Education and political participation. *Annual Review of Political Science*, *25*(1), 89-110. https://doi.org/10.1146/annurev-polisci-051120-014235

Williams, A., & Heo, Y. (2023). Once upon a time: Using brand stories to sell signature sneakers. *International Journal of Sports Marketing and Sponsorship*, *24*(5), 950-966. https://doi.org/10.1108/IJSMS-03-2022-0082

Wilson, L. C., Ballman, A. D., & Buczek, T. J. (2016). News content about mass shootings and attitudes toward mental illness. *Journalism & Mass Communication Quarterly*, *93*(3), 644-658. https://doi.org/10.1177/1077699015610064

Wlodarczyk, A., Basabe, N., Páez, D., & Zumeta, L. (2017). Hope and anger as mediators between collective action frames and participation in collective mobilization: The case of 15-M. *Journal of Social and Political Psychology*, *5*(1), 200-223. https://doi.org/10.5964/jspp.v5i1.471

Wojcieszak, M., & Kim, N. (2016). How to improve attitudes toward disliked groups: The effects of narrative versus numerical evidence on political persuasion. *Communication Research*, *43*(6), 785-809. https://doi.org/10.1177/0093650215618480

Yousaf, H. (2021). Sticking to one's guns: Mass shootings and the political economy of gun control in the United States. *Journal of the European Economic Association*, *19*(5), 2765-2802. https://doi.org/10.1093/jeea/jvab013

Yousif, N. (2023, March 28). *Why number of US mass shootings has risen sharply*. British Broadcasting Corporation. https://www.bbc.com/news/world-us-canada-64377360?utm_source=chatgpt.com

Zaff, J., Boyd, M., Li, Y., Lerner, J. V., & Lerner, R. M. (2010). Active and engaged citizenship: Multi-group and longitudinal factorial analysis of an integrated construct of civic

engagement. *Journal of Youth and Adolescence*, *39*(7), 736-750. https://doi.org/10.1007/s10964-010-9541-6

Zeng, W., Zhao, L., Zhao, W., & Zhang, Y. (2024). How Information Framing Nudges Acceptance of China's Delayed Retirement Policy: A Moderated Mediation Model of Anchoring Effects and Perceived Fairness. *Behavioral Sciences*, *14*(1), Article 45. https://doi.org/10.3390/bs14010045

Zhang, Q., Shi, Y., & English, A. S. (2022). COVID-19 Vaccine uptake in the context of the first delta outbreak in China during the early summer of 2021: The role of geographical distance and vaccine talk. *Risk Management and Healthcare Policy*, *15*, 1203-1214. https://doi.org/10.2147/RMHP.S361024

Zhao, M., & Xie, J. (2011). Effects of social and temporal distance on consumers' responses to peer recommendations. *Journal of Marketing Research*, *48*(3), 486-496. https://doi.org/10.1509/jmkr.48.3.486

Zhou, S., & Niederdeppe, J. (2017). The promises and pitfalls of personalization in narratives to promote social change. *Communication Monographs*, *84*(3), 319-342. https://doi.org/10.1080/03637751.2016.1246348

Zhu, R., Krever, R., & Choi, A. S. K. (2018). The impact of newspaper reports on fear of violent crime in Hong Kong. *Newspaper Research Journal*, *39*(4), 470-480. https://doi.org/10.1177/0739532918806889

Zukin, C., Keeter, S., Andolina, M., Jenkins, K., & Carpini, M. X. D. 2006. *A new engagement? Political participation, civic life, and the changing American citizen*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195183177.001.0001

Appendix A

Institutional Review Board for the Protection of Human Subjects

Approval of Study Modification – Expedited Review – AP0

Date: April 30, 2026 **IRB#:** 19719

Principal Investigator: Xiao Liu **Reference No: 787516**

Study Title: Pro-gun versus gun control issue positions: Responsibility framing in news coverage of mass shootings, attitudes change, and civic engagement

Approval Date: 04/29/2026

Modification Description: XL-Dissertation-Revision

The review and approval of this submission is based on the determination that the study, as amended, will continue to be conducted in a manner consistent with the requirements of 45 CFR 46.

To view the approved documents for this submission, open this study from the My Studies option, go to Submission History, go to Completed Submissions tab and then click the Details icon.

If the consent form(s) were revised as a part of this modification, discontinue use of all previous versions of the consent form.

If you have questions about this notification or using iRIS, contact the HRPP office at (405) 325-8110 or irb@ou.edu. The HRPP Administrator assigned for this submission: Kat L Braswell.

Cordially,

Ioana Cionea, Ph.D.
Chair, Institutional Review Board

Appendix B

Questionnaire

Consent to Participate in Research

University of Oklahoma

IRB #_19719_

IRB Approval Date_April 30, 2026_

You are invited to participate in a research study about news coverage and related attitudes, perceptions, and behavioral intentions. For scientific reasons, you may be misled about the nature or purpose of the research.

If you agree to participate, you will complete an online survey, which will take approximately 20~23 minutes.

You may experience these risks:

You will complete an online survey on the Qualtrics platform, with recruitment and compensation managed through CloudResearch. Although no direct identifying information (such as your name) will be collected, both platforms maintain their own privacy and security policies. As part of their systems, these platforms assign a unique participant ID for compensation and data quality purposes. Because these external platforms are not part of the research team, there is a risk that they may access or retain information such as your data or IP address, which could potentially be used to re-identify you. No assurance can be made regarding their use of your data beyond this study. To reduce this risk, these IDs will not be linked to your survey responses in any analysis or reporting.

You will be asked to provide a few demographic items that describe you. Different combinations of personal information may make it possible for your identity to be guessed by someone who was given, or gained access to, our research records. To minimize the risk of deductive re-identification, we will not combine identifying variables nor analyze and report results for small groups of people with specific demographic characteristics.

This study involves exposure to news about mass shootings and may cause mild emotional discomfort. However, the content is text-based and not graphic. If any message makes you feel uncomfortable, you may stop the study at any time without penalty. If needed, support is available. You may call or text 988 to reach the 988 Lifeline, a free and confidential service available 24/7 that connects you with trained counselors.

There are no benefits for participating in this research.

If you participate and complete the questionnaire, you will receive this compensation through CloudResearch Connect: $3.34. Upon completion, you will be redirected to the platform to record your participation. Compensation will be issued after your submission is reviewed and approved to ensure it meets basic completion and quality requirements.To be eligible for compensation, participants must complete the survey in full, follow the instructions provided, and demonstrate reasonable attention to the survey content. Responses that are incomplete, contain nonsensical or patterned answers (e.g., selecting the same response for all items without regard to content), or fail clearly indicated instructional questions may not be approved for compensation. Participants who complete the study will receive compensation as described above. Choosing to withdraw your data after the debriefing will not affect your eligibility for compensation. Participants who experience discomfort or technical issues and need to withdraw before

completing the study may contact the researcher to request compensation; such requests will be reviewed on a case-by-case basis.

Your participation is voluntary, and your responses will be kept confidential and de-identified.

We might share your de-identified data with other researchers or use it in future research without obtaining additional consent from you.

The de-identified research data may be uploaded to an online data repository platform, where it would be publicly available for anyone interested in using it.

Even if you choose to participate now, you may stop participating at any time and for any reason.

If you have questions about this research, please contact Xiao Liu, at xliu3@ou.edu, and Dr. Glenn Leshner, at leshnerg@ou.edu.

You can also contact the University of Oklahoma – Norman Campus Institutional Review Board at 405-325-8110 or irb@ou.edu with questions, concerns, or complaints about your rights as a research participant, or if you don't want to talk to the researcher.

Feel free to print this document for your records. Please also indicate whether you agree to participate in this research by providing information to the researcher:

A. I agree to participate.
B. I don't agree to participate.

Indicate your level of agreement: Mass shootings occur because many law-abiding citizens do not own or carry a gun to defend themselves when a shooting happens.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: Mass shootings occur because perpetrators have serious, untreated mental illness.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: Mass shootings occur because potential shooters are not deterred when armed security is insufficient.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: Mass shootings occur because systems and institutions fail to prevent high-risk access to firearms.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: Mass shootings occur because communities lack strong social ties and informal social control.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: Mass shootings occur because economic deprivation increases stress and reduces access to stable opportunities, creating conditions that contribute to violence.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: Mass shootings can be alleviated if more law-abiding citizens own and carry guns for self-defense during a shooting.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: Mass shootings can be alleviated if individuals at risk of committing violence receive effective mental health treatment.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: Mass shootings can be alleviated if potential shooters are deterred by a sufficient presence of armed security.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: Mass shootings can be alleviated if high-risk access to firearms is effectively controlled.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: Mass shootings can be alleviated if communities have stronger social ties and informal social control.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: Mass shootings can be alleviated if economic deprivation is effectively addressed to reduce stress and increase access to stable opportunities, creating conditions that help prevent violence.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: At points, I had a hard time making sense of what was going on in the news.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: My understanding of the people mentioned in the news is unclear.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: I had a hard time recognizing the thread of the story.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: My mind wandered while I was reading the news.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: While reading the news, I found myself thinking about other things.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: I had a hard time keeping my mind focused on the news.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: The news affected me emotionally.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: While reading, I felt nervous when reading about the survivor's experience during the shooting and reassured when reading the criminologist's recommendations for preventing future mass shootings.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: I felt sorry for the deceased victim's family.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: While reading, my body was where I was, but my mind was inside the world described in the news.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: While reading the news, I had a vivid sense of the event described.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: While reading, the mass shooting incident described felt more immediate than my real-world surroundings.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

While reading the news, to what extent did you feel irritated?

A. Very little

B. Little

C. Somewhat little

D. Neither little nor much

E. Somewhat much

F. Much

G. Very much

While reading the news, to what extent did you feel annoyed?

A. Very little

B. Little

C. Somewhat little

D. Neither little nor much

E. Somewhat much

F. Much

G. Very much

While reading the news, to what extent did you feel angry?

A. Very little

B. Little

C. Somewhat little

D. Neither little nor much

E. Somewhat much

F. Much

G. Very much

While reading the news, to what extent did you feel fearful?

A. Very little

B. Little

C. Somewhat little

D. Neither little nor much

E. Somewhat much

F. Much

G. Very much

While reading the news, to what extent did you feel afraid?

A. Very little

B. Little

C. Somewhat little

D. Neither little nor much

E. Somewhat much

F. Much

G. Very much

While reading the news, to what extent did you feel scared?

A. Very little

B. Little

C. Somewhat little

D. Neither little nor much

E. Somewhat much

F. Much

G. Very much

While reading the news, to what extent did you feel hopeful?

A. Very little

B. Little

C. Somewhat little

D. Neither little nor much

E. Somewhat much

F. Much

G. Very much

While reading the news, to what extent did you feel inspired?

A. Very little

B. Little

C. Somewhat little

D. Neither little nor much

E. Somewhat much

F. Much

G. Very much

Indicate your level of agreement: A mass shooting like the one reported in the news article could happen in the near future.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: A mass shooting like the one reported in the news article could happen close to where I live.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: A mass shooting like the one reported in the news article could happen to people like me or people I care about.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: A mass shooting like the one reported in the news article feels realistic rather than unlikely.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: I'm afraid of a crime happening to me.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: I feel vulnerable to becoming the victim of a crime.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: I feel responsible for my community.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: I believe I should make a difference in my community.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: I believe that I have a responsibility to help the poor and the hungry.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: I am committed to serve in my community.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: I believe that all citizens have a responsibility to their community.

A. Strongly disagree

B. Disagree

C. Somewhat disagree

D. Neither agree nor disagree

E. Somewhat agree

F. Agree

G. Strongly agree

Indicate your level of agreement: I believe that it is important to be informed of community issues.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: I believe that it is important to volunteer.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree
G. Strongly agree

Indicate your level of agreement: I believe that it is important to financially support charitable organizations.

A. Strongly disagree
B. Disagree
C. Somewhat disagree
D. Neither agree nor disagree
E. Somewhat agree
F. Agree

G. Strongly agree

How fair or unfair do you consider the news message you just read to be?

A. Very unfair

B. Mostly unfair

C. Somewhat unfair

D. Neither fair nor unfair

E. Somewhat fair

F. Mostly fair

G. Very fair

How biased or unbiased do you consider the news message you just read to be?

A. Very biased

B. Mostly biased

C. Somewhat biased

D. Neither unbiased nor biased

E. Somewhat unbiased

F. Mostly unbiased

G. Very unbiased

How accurate or inaccurate do you consider the news message you just read to be?

A. Very inaccurate

B. Mostly inaccurate

C. Somewhat inaccurate

D. Neither accurate nor inaccurate

E. Somewhat accurate

F. Mostly accurate

G. Very accurate

How trustworthy or untrustworthy do you consider the news message you just read to be?

A. Very untrustworthy

B. Mostly untrustworthy

C. Somewhat untrustworthy

D. Neither trustworthy nor untrustworthy

E. Somewhat trustworthy

F. Mostly trustworthy

G. Very trustworthy

To what extent do you think the news message you just read tells the whole story?

A. Does not tell the whole story at all

B. Mostly does not tell the whole story

C. Somewhat does not tell the whole story

D. Neither

E. Somewhat tells the whole story

F. Mostly tells the whole story

G. Very much tells the whole story

How important or unimportant do you consider the news message you just read to be?

A. Very unimportant

B. Mostly unimportant

C. Somewhat unimportant

D. Neither important nor unimportant

E. Somewhat important

F. Mostly important

G. Very important

How interesting or uninteresting do you consider the news message you just read to be?

A. Very uninteresting

B. Mostly uninteresting

C. Somewhat uninteresting

D. Neither interesting nor uninteresting

E. Somewhat interesting

F. Mostly interesting

G. Very interesting

How informative or uninformative do you consider the news message you just read to be?

A. Very uninformative

B. Mostly uninformative

C. Somewhat uninformative

D. Neither informative nor uninformative

E. Somewhat informative

F. Mostly informative

G. Very informative

How serious or not serious do you consider the news message you just read to be?

A. Not serious at all

B. Mostly not serious

C. Somewhat not serious

D. Neither serious nor not serious

E. Somewhat serious

F. Mostly serious

G. Very serious

How disturbing or not disturbing do you consider the news message you just read to be?

A. Not disturbing at all

B. Mostly not disturbing

C. Somewhat not disturbing

D. Neither disturbing nor not disturbing

E. Somewhat disturbing

F. Mostly disturbing

G. Very disturbing

How would you evaluate the overall quality of the news message you just read?

A. Very poor quality

B. Poor quality

C. Somewhat poor quality

D. Neither good nor poor quality

E. Somewhat good quality

F. Good quality

G. Excellent quality

What is your age?

A. Enter your age as a number below

B. Prefer not to say

Which of the following best represents your gender identity?

A. Woman

B. Man

C. Prefer to self-describe:

D. Prefer not to say

Which race or ethnicity best describes you?

A. White

B. Black or African American

C. Hispanic or Latino

D. Asian

E. American Indian or Alaska Native

F. Native Hawaiian or Pacific Islander

G. Multiracial

H. Other (please specify):

I. Prefer not to say

How would you describe your general political viewpoint?

A. Extremely liberal

B. Liberal

C. Slightly liberal

D. Moderate

E. Slightly conservative

F. Conservative

G. Extremely conservative

H. Prefer not to say

Appendix C

Experimental Materials

Instructions

You will read three short news messages. After each message, you will answer questions about your feelings, perceptions, attitudes, and behavioral intentions. To ensure careful reading, the "Next" button will remain disabled for 35 seconds after each message appears.

Scenario Setting

1. For local news perspective condition

Now the experiment begins. First, please carefully read the scenario for the experiment: You will read three short news reports from local community news outlets about mass shootings in the U.S. Please assume that these outlets cover news relevant to the community where you live and that the events described occurred outside your state. The names of people, places, institutions, and news outlets have been replaced with fictional ones.

2. For national news perspective condition

Now the experiment begins. First, please carefully read the scenario for the experiment: You will read three short news reports from national news outlets about mass shootings in the U.S. These outlets serve nationwide audiences. Please assume that the events described occurred outside your state. The names of people, places, institutions, and news outlets have been replaced with fictional ones.

Stimuli

I. Individual-Level Responsibility Framing × Narrative × Community News Perspective

Grocery mass shooting in Riverbend City leaves 21 dead, raises concerns locally
Morgan Fortinsky Stonebridge Neighborhood News Service

On an ordinary Saturday afternoon, Aug. 16, 2025, the camera zoomed in on the HarvestBasket grocery store in Riverbend City.

Riley Blake was picking fruit in the produce section when she suddenly heard gunshots and panicked screams near the entrance. Shoppers scrambled for places to hide. Blake ducked behind the fruit shelves.

“Someone next to me fell to the ground, and I could faintly smell blood. Bullets flew over my head. It was terrifying,” Blake recalled. The mass shooting killed 21 people and injured 23 others.

Sage Emerson, 63, was among those killed in the grocery attack, fatally shot moments after entering the store to buy dinner. Emerson’s spouse, Cameron Finley, is inviting the public to celebrate Emerson’s life, as Finley has no other family in town.

“I was supposed to be the strong one, but I found out I’m the weak one. Sage’s going to be missed a lot,” Finley said.

The attack was carried out by 31-year-old Dakota Spencer, according to Riverbend County Sheriff Casey Harper.

“The shooter had severe, lifelong mental disabilities and deep resentment toward society,” the sheriff said.

Reese Taylor, a criminologist at the University of Marenton, a local university, noted, “During the shooting, there was no armed security to deter the shooter, and shoppers had nothing to defend themselves.”

Taylor also noted that the Riverbend City attack serves as a warning to the Stonebridge community.

“To avoid tragedies like this,” Taylor said, “Stonebridge needs expanded access to mental health care, especially for people at risk of committing violence. Key local public places also need stronger security, and law-abiding residents should be able to carry concealed guns to protect themselves.”

High school mass shooting in Ardenton City leaves 14 dead, raises concerns locally
Avery Hein Cedarbrook Local Press

Gunshots echoed through the main hallway at Clearview High School in Ardenton City on Tuesday morning, Oct. 21, 2025, just as some classes began.

Jordan Ellis, a junior, was heading to study hall when screams erupted and students scattered. Teachers ordered a lockdown as Ellis and several classmates hid in a storage closet, sirens wailing outside.

“Someone collapsed right in front of me, and I could hear people crying in the hallway,” Ellis said. “I didn’t know if we were going to make it out.” The attack left 14 dead and 19 injured.

Among those killed was 15-year-old Rowan Mitchell, who was in a chemistry classroom when the shooter burst in. Mitchell had been rehearsing for a choir performance after school.

“Rowan was full of light and kindness, and always wanted to make others smile,” Mitchell’s parents said. “Our family will never be the same.”

Ardenton County Sheriff Bailey Carter said the attack was carried out by 27-year-old Drew Monroe.

Carter said, “The shooter struggled with serious, ongoing mental health problems and expressed deep hostility toward society.”

“There was insufficient armed security to deter the shooter, and students and teachers had no means to defend themselves,” said Charlie Dawson, a criminologist at the University of Bellmont, a local university.

Dawson added that schools in the Cedarbrook community should view this attack as a warning.

“To help prevent similar tragedies, our community needs to broaden the reach of mental health services for those at risk of violence. Schools also need stronger campus security. Outside K–12 settings, licensed individuals at colleges and universities should be able to carry concealed firearms for self-defense,” Dawson said.

Music festival mass shooting in Oakcrest City leaves 18 dead, raises concerns locally
Quinn Forman Ashford Community Journal

Crowds filled the open field at the Early Spring Music Festival in Oakcrest City as music carried across the festival grounds on the evening of April 11, 2025.

Peyton Bennett was standing with friends near food trucks when the music abruptly stopped and people began screaming and running in all directions. As security shouted for everyone to get down, Bennett crouched behind a vendor stand.

“People started dropping around me, and I didn’t know where the shots were coming from,” Bennett said. “It was chaos.” The shooting killed 18 people and injured 26 others.

Logan Mercer, 41, was killed near the main stage area. Mercer had traveled from a nearby town with friends to attend the festival.

“We were looking forward to the festival as a chance to reunite,” one of Mercer’s friends said. “It’s hard to accept that Logan is gone.”

Oakcrest County Sheriff Jamie Carver reported that the attacker was 34-year-old Blair Montgomery.

“The shooter had a long history of severe mental health struggles and expressed deep anger toward society,” the sheriff said.

Devon Halstead, a criminologist at the University of Vandemere, a local university, pointed out, “Security presence at the event was limited, and attendees had no way to protect themselves once the shooting began.”

Halstead went on to explain that the Oakcrest City attack reflects deeper safety concerns facing the Ashford community.

“To reduce the likelihood of tragedies like this,” Halstead said, “our community needs expanded access to mental health care, particularly for individuals at risk of committing violence. Large local events also require stronger security planning, and law-abiding residents should be able to carry concealed firearms to protect themselves.”

II. Individual-Level Responsibility Framing × Narrative × National News Perspective

Grocery mass shooting in Riverbend City leaves 21 dead
Morgan Fortinsky American News Today

On an ordinary Saturday afternoon, Aug. 16, 2025, the camera zoomed in on the HarvestBasket grocery store in Riverbend City.

Riley Blake was picking fruit in the produce section when she suddenly heard gunshots and panicked screams near the entrance. Shoppers scrambled for places to hide. Blake ducked behind the fruit shelves.

“Someone next to me fell to the ground, and I could faintly smell blood. Bullets flew over my head. It was terrifying,” Blake recalled. The mass shooting killed 21 people and injured 23 others.

Sage Emerson, 63, was among those killed in the grocery attack, fatally shot moments after entering the store to buy dinner. Emerson’s spouse, Cameron Finley, is inviting the public to celebrate Emerson’s life, as Finley has no other family in town.

“I was supposed to be the strong one, but I found out I’m the weak one. Sage’s going to be missed a lot,” Finley said.

The attack was carried out by 31-year-old Dakota Spencer, according to Riverbend County Sheriff Casey Harper.

“The shooter had severe, lifelong mental disabilities and deep resentment toward society,” the sheriff said.

Reese Taylor, a criminologist at the U.S. Criminal Justice Institute, noted, “During the shooting, there was no armed security to deter the shooter, and shoppers had nothing to defend themselves.”

Taylor also noted that the Riverbend City attack serves as a warning to the whole country.

“It’s not impossible to prevent,” Taylor said. “Mental health care must be more accessible, especially for people at risk of committing violence. Key public places also need stronger armed security, and law-abiding U.S. citizens should be able to carry concealed guns to protect themselves.”

High school mass shooting in Ardenton City leaves 14 dead
Avery Hein U.S. News Network

Gunshots echoed through the main hallway at Clearview High School in Ardenton City on Tuesday morning, Oct. 21, 2025, just as some classes began.

Jordan Ellis, a junior, was heading to study hall when screams erupted and students scattered. Teachers ordered a lockdown as Ellis and several classmates hid in a storage closet, sirens wailing outside.

“Someone collapsed right in front of me, and I could hear people crying in the hallway,” Ellis said. “I didn’t know if we were going to make it out.” The attack left 14 dead and 19 injured.

Among those killed was 15-year-old Rowan Mitchell, who was in a chemistry classroom when the shooter burst in. Mitchell had been rehearsing for a choir performance after school.

“Rowan was full of light and kindness, and always wanted to make others smile,” Mitchell’s parents said. “Our family will never be the same.”

Ardenton County Sheriff Bailey Carter said the attack was carried out by 27-year-old Drew Monroe.

Carter said, “The shooter struggled with serious, ongoing mental health problems and expressed deep hostility toward society.”

“There was insufficient armed security to deter the shooter, and students and teachers had no means to defend themselves.” said Charlie Dawson, a criminologist at the American Public Safety Research Center.

Dawson added that American campus security should see this attack as a warning.

“Similar tragedies are not inevitable. Expanding nationwide access to mental health care for individuals at risk of violence is essential. Schools must strengthen campus security measures across the country, and beyond K–12 settings, licensed individuals at colleges and universities should be able to carry concealed firearms for self-defense.” Dawson said.

Music festival mass shooting in Oakcrest City leaves 18 dead
Quinn Forman National News Report

Crowds filled the open field at the Early Spring Music Festival in Oakcrest City as music carried across the festival grounds on the evening of April 11, 2025.

Peyton Bennett was standing with friends near food trucks when the music abruptly stopped and people began screaming and running in all directions. As security shouted for everyone to get down, Bennett crouched behind a vendor stand.

“People started dropping around me, and I didn’t know where the shots were coming from,” Bennett said. “It was chaos.” The shooting killed 18 people and injured 26 others.

Logan Mercer, 41, was killed near the main stage area. Mercer had traveled from a nearby town with friends to attend the festival.

“We were looking forward to the festival as a chance to reunite,” one of Mercer’s friends said. “It’s hard to accept that Logan is gone.”

Oakcrest County Sheriff Jamie Carver reported that the attacker was 34-year-old Blair Montgomery.

“The shooter had a long history of severe mental health struggles and expressed deep anger toward society,” the sheriff said.

Devon Halstead, a criminologist at the National Center for Crime and Justice, pointed out, “Security presence at the event was limited, and attendees had no way to protect themselves once the shooting began.”

Halstead went on to explain that the Oakcrest City attack reflects deeper safety concerns facing the U.S.

“Violence like this does not have to happen,” Halstead said. “Our country needs expanded access to mental health care, particularly for people who may be at risk of violent behavior. Large public events also require stronger security planning, and law-abiding citizens should have the ability to carry concealed guns for self-defense.”

III. Individual-Level Responsibility Framing × Non-Narrative × Community News Perspective

Grocery mass shooting in Riverbend City leaves 21 dead, draws attention locally
Morgan Fortinsky Stonebridge Neighborhood News Service

What happened: On Aug. 16, 2025, a mass shooting at the HarvestBasket grocery store in Riverbend City resulted in 21 deaths and 23 injuries.

Zoom in: A survivor’s account: Riley Blake was in the produce section when gunshots rang out from the entrance, offering a glimpse into how the attack unfolded.

- Shoppers moved quickly to find places to hide. Realizing the danger, Blake ducked behind fruit shelves.
- “Someone next to me fell to the ground, and I could faintly smell blood. Bullets flew over my head,” Blake said.

The victims: One of the 21: Among those killed was 63-year-old Sage Emerson, who was fatally shot moments after entering the store.

- Emerson’s spouse, Cameron Finley, is inviting the public to celebrate Emerson’s life as Finley has no other family in town.

- “I was supposed to be the strong one, but I found out I’m the weak one. Sage’s going to be missed a lot,” Finley said.

The shooter: Riverbend County Sheriff Casey Harper identified the shooter as 31-year-old Dakota Spencer.

- The sheriff said the shooter had severe, lifelong mental disabilities and deep resentment toward society.
- Reese Taylor, a criminologist at the University of Marenton, a local university, noted that there was no armed security to deter the shooter during the attack and that shoppers had nothing on hand to defend themselves.

Why it matters: The Riverbend City attack serves as a warning to the Stonebridge community, Taylor said, calling for:

- Expanded access to mental health care, especially for people at risk of committing violence.
- Stronger security in key local public places.
- Law-abiding residents able to carry concealed guns for self-defense.

High school mass shooting in Ardenton City leaves 14 dead, draws attention locally
Avery Hein Cedarbrook Local Press

The incident: A mass shooting at Clearview High School in Ardenton City on Oct. 21, 2025, left 14 people dead and 19 others injured.

First-hand account: Jordan Ellis, a junior, was heading to study hall when gunshots rang out, offering insight into the attack’s early moments.

- Students scattered and a lockdown was ordered as Ellis hid in a storage closet. Sirens sounded outside.
- “Someone collapsed right in front of me, and I could hear people crying in the hallway,” Ellis said.

The lives lost: One of the 14: Rowan Mitchell, 15, was among those killed. Mitchell was in a chemistry classroom when the shooter entered the classroom.

- Mitchell had been rehearsing for a choir performance after school.
- “Rowan was full of light and kindness, and always wanted to make others smile,” Mitchell’s parents said. “Our family will never be the same.”

The perpetrator: The shooter was identified as 27-year-old Drew Monroe by Ardenton County Sheriff Bailey Carter.

- Carter explained the shooter struggled with serious, ongoing mental health problems and expressed deep hostility toward society.
- Charlie Dawson, a criminologist at the University of Bellmont, a local university, pointed out that there was insufficient armed security to deter the shooter and that students and teachers had no means to defend themselves.

What it signals: Dawson added that schools in the Cedarbrook community should view the attack as a warning and outlined several steps:

- Broader access to mental health services for those at risk of violence within the community.
- Stronger campus security.
- Licensed individuals at colleges and universities able to carry concealed firearms for self-defense outside K–12 settings.

Music festival mass shooting in Oakcrest City leaves 18 dead, draws attention locally
Quinn Forman Ashford Community Journal

The attack: Eighteen people were killed and 26 others were injured in a mass shooting at the Early Spring Music Festival in Oakcrest City on April 11, 2025.

Zoom in: A witness account: Peyton Bennett was standing with friends near the food trucks when the music stopped and people in the crowd began moving in different directions, providing an account of the attack's early moments.

- Security shouted for people to get down. Bennett took cover behind a vendor stand.
- "People started dropping around me, and I didn't know where the shots were coming from," Bennett said.

One of those killed: Among the victims, Logan Mercer, 41, was killed near the main stage area.

- Mercer had traveled from a nearby town with friends to attend the festival.
- "We were looking forward to the festival as a chance to reunite," one of Mercer's friends said. "It's hard to accept that Logan is gone."

The attacker: Oakcrest County Sheriff Jamie Carver said the attacker was 34-year-old Blair Montgomery.

- The sheriff described the shooter as having a long history of severe mental health struggles and deep anger toward society.
- Devon Halstead, a criminologist at the University of Vandemere, a local university, said security presence at the event was limited and attendees had no way to protect themselves once the shooting began.

What it means: The Oakcrest City attack reflects deeper safety concerns facing the Ashford community, said Halstead, who recommended the following:

- Expanded access to mental health care, particularly for individuals at risk of committing violence.
- Stronger security planning for large local events.
- Law-abiding residents able to carry concealed firearms for self-protection.

IV. Individual-Level Responsibility Framing × Non-Narrative × National News Perspective

Grocery mass shooting in Riverbend City leaves 21 dead
Morgan Fortinsky American News Today

What happened: On Aug. 16, 2025, a mass shooting at the HarvestBasket grocery store in Riverbend City resulted in 21 deaths and 23 injuries.

Zoom in: A survivor's account: Riley Blake was in the produce section when gunshots rang out from the entrance, offering a glimpse into how the attack unfolded.

- Shoppers moved quickly to find places to hide. Realizing the danger, Blake ducked behind fruit shelves.
- "Someone next to me fell to the ground, and I could faintly smell blood. Bullets flew over my head," Blake said.

The victims: One of the 21: Among those killed was 63-year-old Sage Emerson, who was fatally shot moments after entering the store.

- Emerson's spouse, Cameron Finley, is inviting the public to celebrate Emerson's life as Finley has no other family in town.
- "I was supposed to be the strong one, but I found out I'm the weak one. Sage's going to be missed a lot," Finley said.

The shooter: Riverbend County Sheriff Casey Harper identified the shooter as 31-year-old Dakota Spencer.

- The sheriff said the shooter had severe, lifelong mental disabilities and deep resentment toward society.
- Reese Taylor, a criminologist at the U.S. Criminal Justice Institute, noted that there was no armed security to deter the shooter during the attack and that shoppers had nothing on hand to defend themselves.

Why it matters: The Riverbend City attack serves as a warning to the whole country, Taylor said, calling for:

- More accessible mental health care, especially for people at risk of committing violence.
- Stronger security in key public places.
- Law-abiding U.S. citizens able to carry concealed guns for self-defense.

High school mass shooting in Ardenton City leaves 14 dead
Avery Hein U.S. News Network

The incident: A mass shooting at Clearview High School in Ardenton City on Oct. 21, 2025, left 14 people dead and 19 others injured.

First-hand account: Jordan Ellis, a junior, was heading to study hall when gunshots rang out, offering insight into the attack's early moments.

- Students scattered and a lockdown was ordered as Ellis hid in a storage closet. Sirens sounded outside.
- "Someone collapsed right in front of me, and I could hear people crying in the hallway," Ellis said.

The lives lost: One of the 14: Rowan Mitchell, 15, was among those killed. Mitchell was in a chemistry classroom when the shooter entered the classroom.

- Mitchell had been rehearsing for a choir performance after school.
- "Rowan was full of light and kindness, and always wanted to make others smile," Mitchell's parents said. "Our family will never be the same."

The perpetrator: The shooter was identified as 27-year-old Drew Monroe by Ardenton County Sheriff Bailey Carter.

- Carter explained the shooter struggled with serious, ongoing mental health problems and expressed deep hostility toward society.
- Charlie Dawson, a criminologist at the American Public Safety Research Center, pointed out that there was insufficient armed security to deter the shooter and that students and teachers had no means to defend themselves.

What it signals: Dawson added that American campus security should view the attack as a warning and outlined several steps:

- Broader access to mental health care for individuals at risk of violence nationwide.
- Stronger campus security measures across the country.
- Licensed individuals at colleges and universities able to carry concealed firearms for self-defense outside K–12 settings.

Music festival mass shooting in Oakcrest City leaves 18 dead
Quinn Forman National News Report

The attack: Eighteen people were killed and 26 others were injured in a mass shooting at the Early Spring Music Festival in Oakcrest City on April 11, 2025.

Zoom in: A witness account: Peyton Bennett was standing with friends near the food trucks when the music stopped and people in the crowd began moving in different directions, providing an account of the attack's early moments.

- Security shouted for people to get down. Bennett took cover behind a vendor stand.
- "People started dropping around me, and I didn't know where the shots were coming from," Bennett said.

One of those killed: Among the victims, Logan Mercer, 41, was killed near the main stage area.

- Mercer had traveled from a nearby town with friends to attend the festival.
- "We were looking forward to the festival as a chance to reunite," one of Mercer's friends said. "It's hard to accept that Logan is gone."

The attacker: Oakcrest County Sheriff Jamie Carver said the attacker was 34-year-old Blair Montgomery.

- The sheriff described the shooter as having a long history of severe mental health struggles and deep anger toward society.
- Devon Halstead, a criminologist at the National Center for Crime and Justice, said security presence at the event was limited and attendees had no way to protect themselves once the shooting began.

What it means: The Oakcrest City attack reflects deeper safety concerns facing the U.S., said Halstead, who recommended the following:

- Expanded access to mental health care, particularly for people at risk of committing violence.
- Stronger security planning for large public events.
- Law-abiding citizens able to carry concealed guns for self-protection.

V. Structural-Level Responsibility Framing × Narrative × Community News Perspective

Grocery mass shooting in Riverbend City leaves 21 dead, raises concerns locally
Morgan Fortinsky Stonebridge Neighborhood News Service

On an ordinary Saturday afternoon, Aug. 16, 2025, the camera zoomed in on the HarvestBasket grocery store in Riverbend City.

Riley Blake was picking fruit in the produce section when she suddenly heard gunshots and panicked screams near the entrance. Shoppers scrambled for places to hide. Blake ducked behind the fruit shelves.

“Someone next to me fell to the ground, and I could faintly smell blood. Bullets flew over my head. It was terrifying,” Blake recalled. The mass shooting killed 21 people and injured 23 others.

Sage Emerson, 63, was among those killed in the grocery attack, fatally shot moments after entering the store to buy dinner. Emerson’s spouse, Cameron Finley, is inviting the public to celebrate Emerson’s life, as Finley has no other family in town.

“I was supposed to be the strong one, but I found out I’m the weak one. Sage’s going to be missed a lot,” Finley said.

The attack was carried out by 31-year-old Dakota Spencer, according to Riverbend County Sheriff Casey Harper.

“The shooter obtained the gun through a straw purchase,” the sheriff said.

Reese Taylor, a criminologist at the University of Marenton, a local university, noted, “Lacking stable income, housing, or access to social services, the shooter likely faced long-term stress. Neighbors around the store didn’t know one another well enough to step in when something seemed wrong.”

Taylor also noted that the Riverbend City attack serves as a warning to the Stonebridge community.

“To avoid tragedies like this,” Taylor said, “local economic development should ensure a fair distribution of social resources. Our community also needs stronger social ties and informal social control, as well as tighter firearm access for high-risk individuals.”

High school mass shooting in Ardenton City leaves 14 dead, raises concerns locally
Avery Hein Cedarbrook Local Press

Gunshots echoed through the main hallway at Clearview High School in Ardenton City on Tuesday morning, Oct. 21, 2025, just as some classes began.

Jordan Ellis, a junior, was heading to study hall when screams erupted and students scattered. Teachers ordered a lockdown as Ellis and several classmates hid in a storage closet, sirens wailing outside.

“Someone collapsed right in front of me, and I could hear people crying in the hallway,” Ellis said. “I didn’t know if we were going to make it out.” The attack left 14 dead and 19 injured.

Among those killed was 15-year-old Rowan Mitchell, who was in a chemistry classroom when the shooter burst in. Mitchell had been rehearsing for a choir performance after school.

“Rowan was full of light and kindness, and always wanted to make others smile,” Mitchell’s parents said. “Our family will never be the same.”

Ardenton County Sheriff Bailey Carter said the attack was carried out by 27-year-old Drew Monroe.

Carter said, “The shooter acquired the firearm through an unlicensed transaction.”

“With limited educational opportunities, frequent evictions, and poor access to public services, the shooter may have faced significant stress. Neighbors in the community weren’t connected closely enough to intervene when seeing warning signs,” said Charlie Dawson, a criminologist at the University of Bellmont, a local university.

Dawson added that schools in the Cedarbrook community should view this attack as a warning.

“To help prevent similar tragedies, local economic development efforts must promote a more equitable distribution of social resources. Our community also needs stronger social bonds and informal social control, as well as tighter restrictions on firearm access for high-risk individuals,” Dawson said.

Music festival mass shooting in Oakcrest City leaves 18 dead, raises concerns locally
Quinn Forman Ashford Community Journal

Crowds filled the open field at the Early Spring Music Festival in Oakcrest City as music carried across the festival grounds on the evening of April 11, 2025.

Peyton Bennett was standing with friends near food trucks when the music abruptly stopped and people began screaming and running in all directions. As security shouted for everyone to get down, Bennett crouched behind a vendor stand.

“People started dropping around me, and I didn’t know where the shots were coming from,” Bennett said. “It was chaos.” The shooting killed 18 people and injured 26 others.

Logan Mercer, 41, was killed near the main stage area. Mercer had traveled from a nearby town with friends to attend the festival.

“We were looking forward to the festival as a chance to reunite,” one of Mercer’s friends said. “It’s hard to accept that Logan is gone.”

Oakcrest County Sheriff Jamie Carver reported that the attacker was 34-year-old Blair Montgomery.

“The attacker stole the gun from a friend,” the sheriff said.

Devon Halstead, a criminologist at the University of Vandemere, a local university, pointed out, “The shooter may have struggled with low income, overcrowded housing, and few chances to move ahead. Neighbors in the area didn’t interact closely enough to respond when concerning behavior appeared.”

Halstead went on to explain that the Oakcrest City attack reflects deeper safety concerns facing the Ashford community.

“To reduce the likelihood of tragedies like this,” Halstead said, “local economic development should aim to distribute social resources more fairly. Our community also needs stronger social ties and informal social control, along with stricter firearm access and storage laws, especially for individuals considered high risk.”

VI. Structural-Level Responsibility Framing × Narrative × National News Perspective

Grocery mass shooting in Riverbend City leaves 21 dead
Morgan Fortinsky American News Today

On an ordinary Saturday afternoon, Aug. 16, 2025, the camera zoomed in on the HarvestBasket grocery store in Riverbend City.

Riley Blake was picking fruit in the produce section when she suddenly heard gunshots and panicked screams near the entrance. Shoppers scrambled for places to hide. Blake ducked behind the fruit shelves.

“Someone next to me fell to the ground, and I could faintly smell blood. Bullets flew over my head. It was terrifying,” Blake recalled. The mass shooting killed 21 people and injured 23 others.

Sage Emerson, 63, was among those killed in the grocery attack, fatally shot moments after entering the store to buy dinner. Emerson’s spouse, Cameron Finley, is inviting the public to celebrate Emerson’s life, as Finley has no other family in town.

“I was supposed to be the strong one, but I found out I’m the weak one. Sage’s going to be missed a lot,” Finley said.

The attack was carried out by 31-year-old Dakota Spencer, according to Riverbend County Sheriff Casey Harper.

“The shooter obtained the gun through a straw purchase,” the sheriff said.

Reese Taylor, a criminologist at the U.S. Criminal Justice Institute, noted, “Lacking stable income, housing, or access to social services, the shooter likely faced long-term stress. Neighbors around the store didn’t know one another well enough to step in when something seemed wrong.”

Taylor also noted that the Riverbend City attack serves as a warning to the whole country.

“It’s not impossible to prevent,” Taylor said. “Federal economic development should ensure a fair distribution of social resources. Communities nationwide need stronger social ties and informal social control. Firearm access for high-risk individuals must also be more tightly controlled.”

High school mass shooting in Ardenton City leaves 14 dead
Avery Hein U.S. News Network

Gunshots echoed through the main hallway at Clearview High School in Ardenton City on Tuesday morning, Oct. 21, 2025, just as some classes began.

Jordan Ellis, a junior, was heading to study hall when screams erupted and students scattered. Teachers ordered a lockdown as Ellis and several classmates hid in a storage closet, sirens wailing outside.

“Someone collapsed right in front of me, and I could hear people crying in the hallway,” Ellis said. “I didn’t know if we were going to make it out.” The attack left 14 dead and 19 injured.

Among those killed was 15-year-old Rowan Mitchell, who was in a chemistry classroom when the shooter burst in. Mitchell had been rehearsing for a choir performance after school.

“Rowan was full of light and kindness, and always wanted to make others smile,” Mitchell’s parents said. “Our family will never be the same.”

Ardenton County Sheriff Bailey Carter said the attack was carried out by 27-year-old Drew Monroe.

Carter said, “The shooter acquired the firearm through an unlicensed transaction.”

“With limited educational opportunities, frequent evictions, and poor access to public services, the shooter may have faced significant stress. Neighbors in the community weren’t connected closely enough to intervene when seeing warning signs,” said Charlie Dawson, a criminologist at the American Public Safety Research Center.

Dawson added that American campus security should see this attack as a warning.

“Similar tragedies are not inevitable. National economic development efforts should promote a more equitable distribution of social resources. Stronger community ties and informal social control should also be fostered across the country. Access to firearms among high-risk individuals must be more strictly regulated,” Dawson said.

Music festival mass shooting in Oakcrest City leaves 18 dead
Quinn Forman National News Report

Crowds filled the open field at the Early Spring Music Festival in Oakcrest City as music carried across the festival grounds on the evening of April 11, 2025.

Peyton Bennett was standing with friends near food trucks when the music abruptly stopped and people began screaming and running in all directions. As security shouted for everyone to get down, Bennett crouched behind a vendor stand.

“People started dropping around me, and I didn’t know where the shots were coming from,” Bennett said. “It was chaos.” The shooting killed 18 people and injured 26 others.

Logan Mercer, 41, was killed near the main stage area. Mercer had traveled from a nearby town with friends to attend the festival.

“We were looking forward to the festival as a chance to reunite,” one of Mercer’s friends said. “It’s hard to accept that Logan is gone.”

Oakcrest County Sheriff Jamie Carver reported that the attacker was 34-year-old Blair Montgomery.

“The attacker stole the gun from a friend,” the sheriff said.

Devon Halstead, a criminologist at National Center for Crime and Justice, pointed out, “The shooter may have struggled with low income, overcrowded housing, and few chances to move ahead. Neighbors in the area didn’t interact closely enough to respond when concerning behavior appeared.”

Halstead went on to explain that the Oakcrest City attack reflects deeper safety concerns facing the U.S.

“Violence like this does not have to happen,” Halstead said. “Federal economic development should aim to distribute social resources more fairly. Communities across the country must work to strengthen social ties and informal social control. There should also be stricter firearm access and storage laws, especially for individuals considered high risk.”

VII. Structural-Level Responsibility Framing × Non-Narrative × Community News Perspective

Grocery mass shooting in Riverbend City leaves 21 dead, draws attention locally
Morgan Fortinsky Stonebridge Neighborhood News Service

What happened: On Aug. 16, 2025, a mass shooting at the HarvestBasket grocery store in Riverbend City resulted in 21 deaths and 23 injuries.

Zoom in: A survivor’s account: Riley Blake was in the produce section when gunshots rang out from the entrance, offering a glimpse into how the attack unfolded.

- Shoppers moved quickly to find places to hide. Realizing the danger, Blake ducked behind fruit shelves.
- “Someone next to me fell to the ground, and I could faintly smell blood. Bullets flew over my head,” Blake said.

The victims: One of the 21: Among those killed was 63-year-old Sage Emerson, who was fatally shot moments after entering the store.

- Emerson’s spouse, Cameron Finley, is inviting the public to celebrate Emerson’s life as Finley has no other family in town.

- “I was supposed to be the strong one, but I found out I’m the weak one. Sage’s going to be missed a lot,” Finley said.

The shooter: Riverbend County Sheriff Casey Harper identified the shooter as 31-year-old Dakota Spencer.

- The sheriff said the shooter obtained the gun through a straw purchase.
- Reese Taylor, a criminologist at the University of Marenton, a local university, noted that lacking stable income, housing, or access to social services, the shooter likely faced long-term stress. Neighbors around the store did not know one another well enough to step in when something seemed wrong.

Why it matters: The Riverbend City attack serves as a warning to the Stonebridge community, Taylor said, calling for:

- Local economic development that ensures a fair distribution of social resources.
- Stronger social ties and informal social control within Stonebridge.
- Tighter firearm access for high-risk individuals.

High school mass shooting in Ardenton City leaves 14 dead, draws attention locally
Avery Hein Cedarbrook Local Press

The incident: A mass shooting at Clearview High School in Ardenton City on Oct. 21, 2025, left 14 people dead and 19 others injured.

First-hand account: Jordan Ellis, a junior, was heading to study hall when gunshots rang out, offering insight into the attack’s early moments.

- Students scattered and a lockdown was ordered as Ellis hid in a storage closet. Sirens sounded outside.
- “Someone collapsed right in front of me, and I could hear people crying in the hallway,” Ellis said.

The lives lost: One of the 14: Rowan Mitchell, 15, was among those killed. Mitchell was in a chemistry classroom when the shooter entered the classroom.

- Mitchell had been rehearsing for a choir performance after school.
- “Rowan was full of light and kindness, and always wanted to make others smile,” Mitchell’s parents said. “Our family will never be the same.”

The perpetrator: The shooter was identified as 27-year-old Drew Monroe by Ardenton County Sheriff Bailey Carter.

- Carter explained that the shooter acquired the firearm through an unlicensed transaction.

- Charlie Dawson, a criminologist at the University of Bellmont, a local university, pointed out that with limited educational opportunities, frequent evictions, and poor access to public services, the shooter may have faced significant stress. Neighbors in the community were not connected closely enough to intervene when seeing warning signs.

What it signals: Dawson added that schools in the Cedarbrook community should view the attack as a warning and outlined several steps:

- Local economic development efforts that promote a more equitable distribution of social resources.
- Stronger social bonds and informal social control within the community.
- Tighter restrictions on firearm access for high-risk individuals.

Music festival mass shooting in Oakcrest City leaves 18 dead, draws attention locally
Quinn Forman Ashford Community Journal

The attack: Eighteen people were killed and 26 others were injured in a mass shooting at the Early Spring Music Festival in Oakcrest City on April 11, 2025.

Zoom in: A witness account: Peyton Bennett was standing with friends near the food trucks when the music stopped and people in the crowd began moving in different directions, providing an account of the attack's early moments.

- Security shouted for people to get down. Bennett took cover behind a vendor stand.
- "People started dropping around me, and I didn't know where the shots were coming from," Bennett said.

One of those killed: Among the victims, Logan Mercer, 41, was killed near the main stage area.

- Mercer had traveled from a nearby town with friends to attend the festival.
- "We were looking forward to the festival as a chance to reunite," one of Mercer's friends said. "It's hard to accept that Logan is gone."

The attacker: Oakcrest County Sheriff Jamie Carver said the attacker was 34-year-old Blair Montgomery.

- The sheriff reported that the shooter stole the gun from a friend.
- Devon Halstead, a criminologist at the University of Vandemere, a local university, said the shooter may have struggled with low income, overcrowded housing, and few chances to move ahead. Neighbors in the area didn't interact closely enough to respond when concerning behavior appeared.

What it means: The Oakcrest City attack reflects deeper safety concerns facing the Ashford community, said Halstead, who recommended the following:

- Local economic development should aim to distribute social resources more fairly.
- Stronger local social ties and informal social control.
- Stricter firearm access and storage laws, especially for individuals considered high risk.

VIII. Structural-Level Responsibility Framing × Non-Narrative × National News Perspective

Grocery mass shooting in Riverbend City leaves 21 dead
Morgan Fortinsky American News Today

What happened: On Aug. 16, 2025, a mass shooting at the HarvestBasket grocery store in Riverbend City resulted in 21 deaths and 23 injuries.

Zoom in: A survivor's account: Riley Blake was in the produce section when gunshots rang out from the entrance, offering a glimpse into how the attack unfolded.

- Shoppers moved quickly to find places to hide. Realizing the danger, Blake ducked behind fruit shelves.
- "Someone next to me fell to the ground, and I could faintly smell blood. Bullets flew over my head," Blake said.

The victims: One of the 21: Among those killed was 63-year-old Sage Emerson, who was fatally shot moments after entering the store.

- Emerson's spouse, Cameron Finley, is inviting the public to celebrate Emerson's life as Finley has no other family in town.
- "I was supposed to be the strong one, but I found out I'm the weak one. Sage's going to be missed a lot," Finley said.

The shooter: Riverbend County Sheriff Casey Harper identified the shooter as 31-year-old Dakota Spencer.

- The sheriff said the shooter obtained the gun through a straw purchase.
- Reese Taylor, a criminologist at the U.S. Criminal Justice Institute, noted that lacking stable income, housing, or access to social services, the shooter likely faced long-term stress. Neighbors around the store did not know one another well enough to step in when something seemed wrong.

Why it matters: The Riverbend City attack serves as a warning to the whole country, Taylor said, calling for:

- Federal economic development that ensures a fair distribution of social resources.
- Nationwide stronger social ties and informal social control within communities.
- Tighter firearm access for high-risk individuals.

High school mass shooting in Ardenton City leaves 14 dead
Avery Hein U.S. News Network

The incident: A mass shooting at Clearview High School in Ardenton City on Oct. 21, 2025, left 14 people dead and 19 others injured.

First-hand account: Jordan Ellis, a junior, was heading to study hall when gunshots rang out, offering insight into the attack's early moments.

- Students scattered and a lockdown was ordered as Ellis hid in a storage closet. Sirens sounded outside.
- "Someone collapsed right in front of me, and I could hear people crying in the hallway," Ellis said.

The lives lost: One of the 14: Rowan Mitchell, 15, was among those killed. Mitchell was in a chemistry classroom when the shooter entered the classroom.

- Mitchell had been rehearsing for a choir performance after school.
- "Rowan was full of light and kindness, and always wanted to make others smile," Mitchell's parents said. "Our family will never be the same."

The perpetrator: The shooter was identified as 27-year-old Drew Monroe by Ardenton County Sheriff Bailey Carter.

- Carter explained that the shooter acquired the firearm through an unlicensed transaction.
- Charlie Dawson, a criminologist at the American Public Safety Research Center, pointed out that with limited educational opportunities, frequent evictions, and poor access to public services, the shooter may have faced significant stress. Neighbors in the community were not connected closely enough to intervene when seeing warning signs.

What it signals: Dawson added that American campus security should see this attack as a warning and outlined several steps:

- National economic development efforts that promote a more equitable distribution of social resources.
- Stronger community ties and informal social control across the country.
- Access to firearms among high-risk individuals must be more strictly regulated.

Music festival mass shooting in Oakcrest City leaves 18 dead
Quinn Forman National News Report

The attack: Eighteen people were killed and 26 others were injured in a mass shooting at the Early Spring Music Festival in Oakcrest City on April 11, 2025.

Zoom in: A witness account: Peyton Bennett was standing with friends near the food trucks when the music stopped and people in the crowd began moving in different directions, providing an account of the attack's early moments.

- Security shouted for people to get down. Bennett took cover behind a vendor stand.
- "People started dropping around me, and I didn't know where the shots were coming from," Bennett said.

One of those killed: Among the victims, Logan Mercer, 41, was killed near the main stage area.

- Mercer had traveled from a nearby town with friends to attend the festival.
- "We were looking forward to the festival as a chance to reunite," one of Mercer's friends said. "It's hard to accept that Logan is gone."

The attacker: Oakcrest County Sheriff Jamie Carver said the attacker was 34-year-old Blair Montgomery.

- The sheriff reported that the shooter stole the gun from a friend.
- Devon Halstead, a criminologist at National Center for Crime and Justice, said the shooter may have struggled with low income, overcrowded housing, and few chances to move ahead. Neighbors in the area didn't interact closely enough to respond when concerning behavior appeared.

What it means: The Oakcrest City attack reflects deeper safety concerns facing the U.S., said Halstead, who recommended the following:

- Federal economic development aimed at distributing social resources more fairly.
- Stronger social ties and informal social control in communities across the country.
- Stricter firearm access and storage laws, especially for individuals considered high risk.