



# Shaping the narrative around traffic injury:

A media framing guide for transportation and public health professionals

November 2020

Seth LaJeunesse
Stephen Heiny
Wes Kumfer
Nancy Pullen-Seufert
Luke Morin
Sydney Nicolla
Teresa Tackett
Lucinda Austin
University of North Carolina, Chapel Hill











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The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated in the interest of information exchange. The report is funded, partially or entirely, by a grant from the U.S. Department of Transportation's University Transportation Centers Program. However, the U.S. Government assumes no liability for the contents or use thereof.

#### **ACKNOWLEDGMENT OF SPONSORSHIP**

This project was supported by the Collaborative Sciences Center for Road Safety, www.roadsafety.unc.edu, a U.S. Department of Transportation National University Transportation Center promoting safety.

## To reference this guide, please use the following citation:

Seth LaJeunesse, Stephen Heiny, Wes Kumfer, Nancy Pullen-Seufert, Luke Morin, Sydney Nicolla, Teresa Tackett and Lucinda Austin. Shaping the narrative around traffic injury:

A media framing guide for transportation and public health professionals (2020).

Collaborative Sciences Center for Road Safety; project R29.

https://www.roadsafety.unc.edu/research/projects/2019r29/.

We gratefully acknowledge the input of the following reviewers on earlier drafts of this guide (in alphabetical order): Jeff Brubaker, Kari Hancock, Elyse Keefe, and Derrick Waller

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# **Summary**

Professionals in transportation and public health share a goal of addressing the enduring and tragic issue of injury and death on our roadways. Though more than 36,000 people die in traffic crashes in the United States each year (U.S. Department of Transportation National Highway Safety Administration, 2020) and motor vehicle crashes are among the leading causes of unintentional death and injury in the United States (Centers for Disease Control and Prevention, 2020), these professionals seldom hear calls to improve the safety of road users. This is partly due to the way members of the public think about traffic injury, which is influenced by how the news media reports on traffic injury. Working with local journalists presents an opportunity to help shape how people think about the problem and what solutions they would support.

New media "frames" convey to readers and viewers what is most important in a story. For example, in covering traffic crashes, journalists most often tell us who was involved in a crash and who may have been responsible for the incident.

Left unsaid is information about the roadway and land use contexts crash-involved people were traveling in, or whether traffic injury is a pressing public health issue in a town, city, or state. Part of the reason for this lack of context in traffic crash reporting is the fact that professionals who design these environments and know about injury prevention—transportation planners, engineers, and public health professionals—are seldom consulted in coverage of crash events.

This guide calls for professionals who work in injury prevention and in the planning and designing of roadways to coordinate with journalists and get involved in shaping the narrative around traffic injury in our communities. The recommendations in this Guide apply to all occasions in which professionals interact with journalists or communicate with members of the public.

When reporting on traffic injury, we recommend that transportation, public health, and journalists frame road trauma in three humanizing and inter-related ways:

**Appeal to people's intrinsic values** of concern for others by coordinating with people affected by road trauma to share their stories.

Depict themes over events to place traffic injury in a broader crash context, speaking to the extent of the problem and underlying risk factors for road injury in a geographic area that go beyond individual responsibility. This avoids placing the blame on those involved in a crash and can inspire thinking about prevention.

**Inspire pragmatic "can-doism"** by highlighting traffic injury as a problem that the town, city, or state is working to address, that such injury is preventable, and emphasizing that improving the safety of the transportation system benefits everyone.

Transportation and public health professionals should also develop plans for engaging the news media and the public by connecting with journalists throughout the year in response to, or anticipation of, a variety of events and occasions. Example events and occasions include:

- in preparation each November for the World Day of Remembrance for Road Traffic Victims;
- in anticipation of travel-heavy times of year;
- before, during, and after major transportation and public health projects or programs; and
- in response to media reported road injuries.

# Sidebar 1. Safe Systems Principles.

Adapting the structure and function of the system to the complexities of human behavior. Design roadways, vehicles, and land uses to conform to human perception, decision-making, state awareness, and behavior in different environments (social and physical) to reduce the likelihood of human mistakes and mitigate the consequences of mistakes.

Manage kinetic energy transfer among road users. Reduce the energy transferred in crashes by designing safer vehicles and roadways. Shift the population to safer, more sustainable methods of travel. Treat road user safety as the foundation of all system interventions. Road safety must be addressed to have true mobility, access, equity, among other transportation values. Provide choices in mobility while ensuring safety for users of every option.

Foster the creation of a shared vision and coordinated action. Work across sectors that influence safety and see traffic injury holistically—including how news media frames such injury—to prevent unintended consequences and to recognize the implications of policymaking in other parts of the transportation system.

# What is "framing" and why does it matter?

Imagine holding up a picture frame over a landscape. As you look through the frame, you notice that some elements of the landscape are bound within the frame, whereas other landscape details lie outside of the frame, reminding us that a picture can never capture an entire place. Like this picture frame, journalists present select information about an event or issue. This selection of some event- or issue-related information over others conveys to the audience which elements are most important, in need of addressing, and which solutions might be most sensible to pursue (Wakefield, Smith, and Chapman, 2005; Hinchcliff, Poulos, Ivers, and Senserrick, 2011).

Journalists can influence understanding of and opinion on many different political issues, ranging from education and immigration reform, to climate change (Beyet and Matthes, 2015) and foreign policy (Wanta, Golan, and Lee, 2004). For example, Goldstein (2011) revealed that the news media portrayed a disproportionately negative view of teachers' unions' perspectives on the No Child Left Behind Act, which then shaped the public's understanding of the Act and their perceptions of teachers and their unions.

As with other subjects, media framing of traffic crashes funnels the audience's attention toward some crash event details over others. These details tend to include the road users involved in a crash, and often exclude information about the environments they were traveling within.

Such exclusion is important, for in a survey experiment of print media framing effects, Goddard, Ralph, Thigpen, and Iacobucci (2019) found that shifting a story's focus from pedestrians to crash-based contexts, tempered pedestrian victim-blaming and increased support for improving pedestrian infrastructure.

# Putting media coverage of traffic crashes in a Safe Systems context

Safe Systems is an approach to transportation safety that shifts the focus from individual decisions—i.e., "safety individualism" - to higher level factors that perpetuate traffic injury, such as road and vehicle design. The approach considers transportation safety holistically and seeks to create a transportation system that eliminates death and serious injury. Several countries have adopted versions of Safe Systems, including Sweden, the Netherlands, Australia, and New Zealand. Many other transportation and public health agencies within and outside the United States have applied the principles of this approach. To advance Safe Systems in the U.S., a multidisciplinary research team with the Collaborative Sciences Center for Road Safety (CSCRS), whose mission is to "create and exchange knowledge to advance transportation safety through a multidisciplinary, systems-based approach," has identified several core and interconnected principles that underpin Safe Systems. As seen in Sidebar 1, the way local news media frame traffic injury plays a critical role in advancing Safe Systems.

# Who tends to tell the story?

Who is behind media framing of traffic crashes? In our recent examination of 1,156 broadcast TV news articles covering traffic crashes, journalists most often quoted a law enforcement officer or agency (18.4% of all articles), followed by crash witnesses (11.9%) and crash-involved parties (6.1%). Media coverage centered around a law enforcement perspective tended to involve identifying crash-involved parties, detailing circumstances that led to the crash, assigning "fault", and documenting any legal consequences crash-involved parties face. Previous studies have found similar trends in media framing of traffic injury, suggesting that such "villainizing" coverage might contribute to the perceived inevitability of crashes by signaling that bad driving behavior is unavoidable (Smith and Martin, 2007; Classen, Eby, Molnar, Dobbs, and Winter, 2011).

# Professionals and stakeholders who can and should get involved

The inevitability of traffic injury is a common public misconception. Though the World Health Organization considers traffic deaths a "preventable health epidemic" (World Health Organization, 2009), the episodic nature of most traffic injury framing neglects the broader social and environmental contexts in which crashes occur (Ralph, lacobucci, Thigpen, & Goddard, 2019). In our review of 1,156 TV news articles covering traffic crashes, we found that journalists often omitted important crash details such as roadway characteristics (e.g., what is the posted speed limit?, how many lanes does the road have?) or consumer trends that favor larger, higher horsepower vehicles (Insurance Institute for Highway Safety, 2016).

As mentioned, law enforcement, bystanders and witnesses, and crash-involved parties were quoted most often in coverage of traffic crashes. On the other hand, transportation planners and engineers, roadway safety advocates, and public health professionals were quoted in only 1.1, 0.4, and 0.1 percent of the 1,156 covered crash events, respectively.

To help shape public perception of traffic injury as a preventable public health issue, journalists, professionals who work in injury prevention and design of roadways, and community advocates should work together to speak to common traffic injury themes beyond assigning blame and putting all of the responsibility to be safe on individual road users.

Figure 1 displays the current and potential flow of information related to a crash, organized according to levels of knowledge about traffic collisions. As shown in Figure 1, members of the public, including decision makers, receive news of traffic crashes from their local news media. Journalists, in turn, receive content for stories about crash events from local police or the court system. Those involved in crashes sometimes engage with police officers and the court system, but nearly always connect with insurance companies. The top tier represents the professional groups that are rarely included in traffic crash narratives, but have influence on the safety of roadways, the prevention of injury, and can speak to how communities are affected by road trauma. In the next section, we will focus on how these professionals' voices and more contextual frames can lead to better understanding of traffic injury, its causes, and possible solutions.

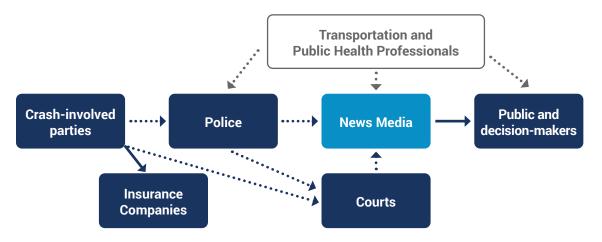


Figure 1. A depiction of the role of news media amidst the interactions that unfold in the aftermath of a crash. (Solid arrows denote interactions that commonly occur; dashed arrows denote interactions that occur less frequently; and grey-outlined white boxes and arrows denote promising though less featured communication channels to present traffic injury as a preventable public health issue).

# How can we re-frame the conversation around traffic injury?

Thus far we have explored "who" tends to be featured in media coverage of traffic injury. Now we shift to consider "what" messages and meanings journalists convey.

Traffic crashes are commonly framed as isolated events rather than predictable outcomes of our transportation system. In general, the news media focuses on "rare or surprising events", whereas more common events, such as automobile crashes, do not receive the same amount of coverage despite accounting for tens of thousands of deaths annually. Put differently, the media's focus on novelty means they tend to frame issues in terms of episodes rather than themes (Ralph, Iacobucci, Thigpen, & Goddard, 2019).

These "episodic frames" and ones that focus on certain aspects of a crash over others also appeal to certain values more than others. For example, consider a media story featuring a driver striking and killing a pedestrian who was crossing the street. The story, along with its accompanying headline mention the crash-induced travel delays motorists should expect. This frame conveys to the public that travel delays are important, perhaps even more so than the death of a person. Repeated use of similar frames can undermine the public's concern for victims of traffic injury.

However, journalists also humanize the people involved in crashes. So called "human interest" or "victim narratives", which tell stories about crash victims, can provoke strong feelings of empathy toward others among audience members (Valenzuela, Piña, and Ramírez, 2017). This empathy for others emerges from most people's deep concern for the well-being of their close family and friends or their "benevolence" values (Doran and Littrell, 2013). When activated—through human-centered media stories, for example—feelings of benevolence for a member of one's "in-group" can enlarge to include members of "outgroups" (Schwartz, 2016), such as strangers involved in traffic crashes.

As displayed in Figure 2 and Table 1, values, such as those evoked through the messages and framing of media stories, range from those most concerned with enhancing

the self or so-called "extrinsic values" (Achievement and Power), to those values that transcend the self or so-called "intrinsic values" (Self-Direction, Universalism, and Benevolence). Figure 2 shows how each of the 10 values are arranged in a "circumplex." When activated with words or imagery, values located closer to each other both "spill over" into nearby values and suppress values located on the opposite side of the circumplex.

The previous example of a media story that frames a road injury as something that delays motor vehicle traffic appeals to Power values for control over one's time and use of road space. Activating people's values for control (Power) can suppress their concern for the welfare of others (Universalism). On the other hand, the "human interest" or "victim narrative" story appeals to values of Universalism, concern for others. Moreover, a story that encourages readers and viewers to reflect upon their ability to choose to drive at safe speeds (Self-Direction) can "spill over" into caring for people involved in road trauma (Universalism) (see Figure 2).



Figure 2. Universal human values arranged in a circumplex (Common Cause Foundation, 2014).

Table 1. Types and definitions of human values (adapted from Bardi and Schwartz, 2016).

Types of Values	Definition
Power	Social status and prestige, control or dominance over people and resources
Achievement	Personal success through demonstrating competence according to social standards
Hedonism	Pleasure and sensuous gratification for oneself
Stimulation	Excitement, novelty, and challenge in life
Self-Direction	Independent thought and action-choosing, creating, exploring
Universalism	Understanding, appreciation, tolerance and protection of the welfare of all people and of nature
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact
Tradition	Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide the self
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
Security	Safety, harmony and stability of society, of relationships, and of self

# **Appeal to intrinsic values**

An "intrinsic" value possesses worth in "in its own right," in contrast to values which derive worth from their relation to something outside of the self (e.g., money, social status) (Stanford Encyclopedia of Philosophy, 2002). Even people who attach greater importance to extrinsic values respond to appeals to their intrinsic values by expressing deeper concern over a wide range of "bigger-than-self" problems. Relevant here is the finding that communicators who engage their audiences' intrinsic values of concern for others (Benevolence and Universalism) were likely to inspire people to express greater concern for "bigger than self" problems (Maio, 2012). These findings place journalists as key communicators in activating the public's intrinsic values of concern for victims of traffic injury.

While infrequent, our review of 1,156 broadcast TV news articles uncovered several that appealed to people's intrinsic values. For example, a Fox 5 article reporting on a Las Vegas crash in March 2018 highlighted the community tragedy of a nine-year-old boy's death (Yahm,

2018). While riding his bike, a driver struck and killed the boy as the driver was turning through an intersection. A Las Vegas Police Sergeant who was interviewed for the story referred to the boy as a "perfect angel." Additionally, Yahm, the story's author, used "energetic and full of love" in the article's title to describe the victim. These appeals to "bigger than self" problems, while heartbreaking, can activate people's sense of concern for others and increase public support for addressing social issues (Maio, 2012; Swim and Becker, 2012).

# **Depict themes over events**

Together with humanizing the victims of crashes and appealing to intrinsic values, is placing crash events into broader context. Centering crashes in a larger narrative about road injury is often called "thematic framing," and is used in contrast with "episodic framing", which treats traffic crashes as isolated incidents unrelated to other crashes (Ting, 2017).

In a story by WCNC Charlotte of a May 2019 vehiclepedestrian crash that resulted in a nine-year old boy's

# Sidebar 2. Planning for Vision Zero.

Vision Zero—an initiative to eliminate serious and fatal traffic crashes—has produced promising results in other countries. Based on these results, several U.S. cities began implementing Vision Zero as early as 2014. In establishing Vision Zero programs, a growing community of U.S. municipalities are developing Vision Zero plans. A Vision Zero plan is a public document that provides the vision for future efforts to eliminate

traffic fatalities and serious injuries. Creating a Vision Zero plan requires advanced planning, collaboration, and community engagement. It also requires an understanding of the serious crashes and risks in the community. To access a Collaborative Sciences Center for Road Safety-produced "Guide to Developing a Vision Zero Plan", visit: <a href="https://www.roadsafety.unc.edu/wp-content/uploads/2020/08/CSCRS\_VZGuide\_FINAL.pdf">https://www.roadsafety.unc.edu/wp-content/uploads/2020/08/CSCRS\_VZGuide\_FINAL.pdf</a>

death, the journalist featured the perspective of the boy's older sister who heard and saw her younger brother lying on the ground immediately after the driver struck him with her truck (Alworth, 2019). Alworth, the story's author, informs viewers that the driver had failed to stop at a stop sign, and then consults neighbors who share how they had recently witnessed other crashes at the intersection. This framing of the crash placed the event in the context of a crash-prone intersection and conveyed to the audience that the victim was part of a larger community.

Thematic frames like these counter assumptions about the causes of road injury, assumptions that often take the shape of "safety individualism." Much like "health individualism"—attributing health outcomes to individuals' choices while neglecting the larger context and social determinants of health (Younginer, Blake, and Jones, 2016)— "safety individualism" ignores the broader context and network of factors that interact to contribute to traffic injury. For example, while a driver's choice to speed contributes to speed-related traffic injury, high traffic speeds are also strongly influenced by the road design, driving context, and drivers' life circumstances (Kumfer, LaJeunesse, Sandt, and Thomas, 2019; Ivan, Ravishanker, Jackson, Aronov, and Guo, 2012).

Similarly, law enforcement and journalists consistently blame pedestrians for the crash-related injuries that befall them, commonly citing their dark clothing or crossing outside of marked crosswalks as though the pedestrian's choice in clothing and behaviors were the causes of crashes. Yet pedestrians are more likely to die or be seriously injured in a crash and are thus unable to provide their account of events, whereas surviving and often uninjured drivers are unlikely to admit that they were speeding or distracted while driving. Moreover, focusing on victims' and drivers' behaviors can obscure

the responsibility of policymakers to provide a safe transportation system (Job, 2020). With context-based, thematic frames, however, crash reports can appeal to people's intrinsic care for others by telling the story of a crash from a wider perspective.

# Inspire pragmatic "can-doism"

Placing traffic injury into a broader time- or place-based context can also inspire others to call for action.

Consider a crash-related story that took place in San Jose, CA in August 2019. The story informs ABC 7 viewers that an SUV driver struck and killed a 44-year old man who was in a crosswalk with his bicycle (Hassan, 2019). Hassan, the story's author, features a gas station employee who heard the crash, lamented the loss of the victim, and claimed that drivers regularly ran red lights at the 6 x 4 lane intersection. Then, in "can-do" fashion, the story pivots to a San Jose city council member's report about the city's "Vision Zero" program, an initiative to eliminate serious and fatal traffic crashes throughout the city. This council member conveys the sense that "we can do this" and describes how San Jose is working on managing motor vehicle traffic speeds by narrowing vehicle lanes, providing drivers feedback on their travel speeds through dynamic signage, and adding and expanding bike lanes to create buffers between drivers and bicyclists (see Sidebar 2 on planning for Vision Zero).

Too often, traffic injury is framed as inevitable, even a necessary cost of a functioning society. By framing serious crashes as preventable and addressable through use of common-sense measures (e.g., slowing travel speeds, separating people inside and outside of motor vehicles either in space or time), we can reduce fatalistic thinking about road injury and tap into an American sense of "can do" (Thompson, 2016).

# Pulling it all together

Media frames shape the public's perceptions of whether traffic injury is a pressing social problem, which groups of people are to blame for these injuries, and what can or should be done to improve road user safety.

Connecting crashes in thematic ways by showing how one crash is related to others within a municipality, region, or state is within the purview of transportation planners and engineers. Similarly, consideration of the health and wellbeing of people who suffer from crash-induced injuries at a population level is the work of public health professionals. These professionals possess unique insight into ways in which the physical environment and policies influence road user safety, injury outcomes, and plans for making safety improvements. Yet, as we have seen in our analysis of TV news coverage of traffic crashes, transportation and public health professionals are featured in fewer than 1 in 100 stories. This presents a glaring omission in the U.S. traffic injury narrative.

To create a new, empowering narrative around traffic injury in the U.S., let's work together to:

- 1. Appeal to intrinsic values
- 2. Depict themes over events
- 3. Inspire pragmatic "can-doism"

Asking a few key questions can help us frame traffic injury as a public health issue that can and must be addressed. Examples of these questions are listed here.

# Appealing to intrinsic values through telling a story of the humans affected by traffic injury

- Who, as in humans rather than motor vehicles, were involved in the crash?
- How might the crash affect the crash-involved parties and their loved ones, and for how long?

# Depicting themes in where (space) and when (time) crashes and injuries occur

- · What is the road context of this crash?
  - How many lanes does the road have?
  - What is the posted speed limit? Do drivers tend to travel faster than the posted limit? If yes, how much faster?
  - If the crash occurred during low light conditions, does the road have street lighting?
  - Does the road seem like a safe, inviting place to walk or bike along or across?
- How many traffic crashes, injuries, or deaths have occurred on this corridor, in this town or city this month or year?

# Inspiring pragmatic "can-doism" by sharing what the town and city are doing to prevent future traffic injury

- What is the town, city, or state doing to improve road user safety?
  - Does the town, city, or state have or plan to have a Vision Zero program (or other initiative to greatly reduce road user injury)?
  - Are members of the public organizing to address the safety of road users?
- Does the state, county, or local municipality own the road where the crash occurred?
  - Which agency has the authority to make safety improvements to the road?

# Planning to engage the news media and the public

To frame traffic injury as a critical public health issue, it is imperative to connect with local news journalists and the public. Transportation and public health professionals can call, email, send press releases to, or otherwise engage with journalists throughout the year and in response to, or anticipation of, a variety of events and occasions. For example:

- In preparation for the World Day of Remembrance for Road Traffic Victims. This international event takes place on the third Sunday in November every year and through demonstrations about the societal impact of road deaths and injuries, it draws public attention to traffic safety.
- In anticipation of travel-heavy times of year. This might bring to mind images of young people in the streets (e.g., Halloween, first day of school after summer break, Walk to School Day in October and Bike to School Day in May, first day of University classes) and of unusually high amounts of travel (e.g., Thanksgiving and Winter holiday travel, Spring Break, Summer travel season). Just prior to each of these events and seasons, transportation and public health professionals could promote safe, sensible, and sustainable travel (walking, biking, riding transit) in ways that motivates people and leverages the reach of local journalists.
- Before, during, and after major transportation and public health projects or programs. Communicating about planned changes to the city's or town's transportation system (e.g., major corridor retrofits, citywide traffic calming, injury prevention programs, Vision Zero planning) can convey to the public that the town, city, or state is working to address this problem, and that improving road user safety benefits everyone. These communications can also help inform residents and policymakers about the safety effectiveness of more novel approaches, such as installing roundabouts, implementing automated speed enforcement, or instituting land use policies that reduce the need for people to drive long distances to get where they need and want to go.

In response to media reported road injuries. As Ralph and colleagues (2019) recommend, professionals should make themselves available to journalists and consider preparing a statement on reported crashes. As discussed throughout this Guide, the statement should appeal to intrinsic values of caring for others, depict themes related to crashes in the area, and inspire can-do attitudes among the public. An example of such a statement is as follows. Please consider adapting to your context and needs:

[Intrinsic values appeal] "I and my department were saddened to learn of the crash that occurred at [date] and [location]. Our thoughts go out to the family and friends of the [name of person(s)] who was/were killed/harmed in the crash.

[Thematic frame] We wish this were an isolated incident, but the truth is, this crash is one among many that devastates the lives of thousands of people in the U.S. each year. It is clear from this crash and many others, that our country, state, and city need to do more to prevent serious crashes like these.

[Pragmatic, "can do" inspiration] Know that in [municipality], we are working with [partnering agencies] to re-design our roads and introduce better policies to make our streets safer for everyone. [Provide project/program/policy examples, if available]. Please feel welcome to get in touch with me and our elected officials to discuss your concerns about safety on our roads."

# References

- Alworth, M. (2019, May 21). 9-year-old boy riding bike to school dies after being hit by truck in Sarasota County. Sarasota, FL. Charlotte, NC: WCNC-TV. Retrieved from https://www.wcnc.com/article/news/local/sarasotacounty/9-year-old-boy-riding-bike-to-school-dies-after-being-hit-by-truck-in-sarasota-county/67-350017fb-28fc-49b9-892b-733eb1c675dc?fbclid=lwAR1Z5zy7H3Wf7\_ZqnzmkC-dSZn-pO36-v49YMGqsEwQ0Scqa9SNqq0LZt-8.
- Bardi, A., & Schwartz, S. H. (2016). Values and behavior. Strength and structure of relations. *Personality & Social Psychology Bulletin*, 29(10), 1207-1220. doi:10.1177/0146167203254602.
- Beyer, A., & Matthes, J. (2015). Public perceptions of the media coverage of irregular immigration: Comparative insights from France, the United States, and Norway. *American Behavioral Scientist*, *59*(7), 839–857. https://doi.org/10.1177/0002764215573253.
- Centers for Disease Control and Prevention. (2020). *WISQARS. Leading causes of death reports, 1981 2018.* Retrieved from https://webappa.cdc.gov/sasweb/ncipc/leadcause.html.
- Classen, S., Eby, D. W., Molnar, L. J., Dobbs, B. M., & Winter, S. M. (2011). Transportation and ageing: Exploring stakeholders' perspectives on advancing safe mobility. *South African Journal of Occupational Therapy, 41*(3), 18-24.
- Common Cause Foundation. (2014, July). *One having more than two sides: How do you describe values?* Retrieved from https://valuesandframes.org/on-having-more-than-two-sides/.
- Doran, C. J., & Littrell, R. F. (2013). Measuring mainstream US cultural values. *Journal of Business Ethics, 117*(2), 261-280. doi:10.1007/s10551-012-1515-z.
- Frameworks Institute (2017). *Episodic vs. thematic stories*. Retrieved from: https://www.frameworksinstitute.org/article/episodic-vs-thematic-stories/#:~:text=Episodic%20frames%20can%20be%20contrasted,focuses%20on%20trends%20over%20time.
- Goddard, T., Ralph, K., Thigpen, C. G., & Iacobucci, E. (2019) Does news coverage of traffic crashes affect perceived blame and preferred solutions? Evidence from an experiment. *Transportation Research Interdisciplinary Perspectives,* 3. https://doi.org/10.1016/j.trip.2019.100073.
- Goldstein, R. A. (2011). Imaging the frame: Media representations of teachers, their unions, NCLB, and education reform. *Educational Policy*, *25*(4), 543-576. doi:10.1177/0895904810361720.
- Hassan, A. (2019, August 30). *Police say search continues for suspect in fatal San Jose hit-and-run.* San Jose, CA. San Francisco, CA: ABC 7 KGO-TV. Retrieved from https://abc7news.com/5503919/.
- Hinchcliff, R., Poulos, R., Ivers, R. Q., & Senserrick, T. (2011). Understanding novice driver policy agenda setting. *Public Health (London)*, 125(4), 217-221. doi:10.1016/j.puhe.2011.01.001.
- Insurance Institute for Highway Safety. (2016, May 24). *Vehicles are packing more horsepower, and that pushes up travel speeds*. Retrieved from https://www.iihs.org/news/detail/vehicles-are-packing-more-horsepower-and-that-pushes-up-travel-speeds.
- Ivan, J.N., Ravishanker, N., Jackson, E., Aronov, B., & Guo, S. (2012). A statistical analysis of the effect of wet-pavement friction on highway traffic safety. *Journal Transportation Safety and Security, 4*, 116-36. doi:10.1080/19439962.2011.6 20218.
- Job, R. F. S. (2020). Policies and interventions to provide safety for pedestrians and overcome the systematic biases underlying the failures. *Frontiers in Sustainable Cities*, 2. doi:10.3389/frsc.2020.00030.

- Kumfer, W., LaJeunesse, S., Sandt, L., & Thomas, L. (2019). Speed, kinetic energy, and the safe systems approach to safer roadways. *ITE Journal*, 89(4), 32-36.
- Maio, G. (2012). *Communicating bigger-than-self problems to extrinsically-oriented audiences*. Common Cause Foundation. Retrieved from https://valuesandframes.org/resources/CCF\_report\_extrinsically\_oriented\_audiences.pdf.
- Ralph, K., Iacobucci, E., Thigpen, C. G., & Goddard, T. (2019). Editorial patterns in bicyclist and pedestrian crash reporting. *Transportation Research Record*, 2673(2), 663-671. https://doi.org/10.1177/0361198119825637.
- Schwartz, S. H. (2016). Universalism values and the inclusiveness of our moral universe. *Journal of Cross-Cultural Psychology*, *38*(6), 711-728. doi:10.1177/0022022107308992.
- Smith, K., & Martin, J. W. (2007). A barrier to building a traffic safety culture in America: Understanding why drivers feel invulnerable and ambivalent when it comes to traffic safety. In *Improving traffic safety culture in the United States: The journey forward* (pp. 201-212). AAA Foundation for Traffic Safety.
- Stanford Encyclopedia of Philosophy. (2002, October 22). *Intrinsic vs. extrinsic value* (*Stanford Encyclopedia of Philosophy*). Stanford Encyclopedia of Philosophy. Retrieved from https://plato.stanford.edu/entries/value-intrinsic-extrinsic/#WhaIntVal.
- Swim, J. K., & Becker, J. C. (2012). Country contexts and individuals' climate change mitigating behaviors: A comparison of U.S. versus German individuals' efforts to reduce energy use. *Journal of Social Issues, 68*(3), 571-591. doi:10.1111/j.1540-4560.2012.01764.x.
- Thompson, D. (2016). Framing the dialogue on race and ethnicity to advance health equity: Proceedings of a workshop. Washington, D.C: National Academies Press. doi:10.17226/23576.
- Ting, S. H. (2017). An agenda-setting study of national day coverage in state and national newspapers. *3L, Language, Linguistics, Literature the South East Asian Journal of English Language Studies, 23*(4), 41-55. doi:10.17576/3L-2017-2304-04.
- U.S. Department of Transportation National Highway Safety Administration (2020, October). *Traffic safety facts: Preview of motor vehicle traffic fatalities in 2019*. Report No. DOT HS 813 021. Retrieved from https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813021.
- Valenzuela, S., Piña, M., & Ramírez, J. (2017). Behavioral effects of framing on social media users: How conflict, economic, human interest, and morality frames drive news sharing. *Journal of Communication*, 67(5), 803-826. doi:10.1111/jcom.12325.
- Wakefield, M., Smith, K. C., & Chapman, S. (2005) Framing of Australian newspaper coverage of a secondhand smoke injury claim: Lessons for media advocacy. *Critical Public Health*, *15*(1), 53-63, doi: 10.1080/09581590500048382.
- Wanta, W., Golan, G., & Lee, C. (2004). Agenda setting and international news: Media influence on public perceptions of foreign nations. *Journalism & Mass Communication Quarterly, 81*(2), 364–377. https://doi.org/10.1177/107769900408100209.
- World Health Organization. (2009). Global health risks: Mortality and burden of disease attributable to selected major risks. Retrieved from https://www.who.int/healthinfo/global\_burden\_disease/GlobalHealthRisks\_report\_full.pdf.
- Yahm, B. (2018, March 23). *Boy hit and killed by SUV remembered as "energetic and full of love."* Fox 5 Vegas. Retrieved from https://www.fox5vegas.com/news/boy-hit-and-killed-by-suv-remembered-as-energetic-and-full-of-love/article\_d6b65901-4b4b-58cd-830b-9dc56a1adf86.html.
- Younginer, N., Blake, C., & Jones, S. (2016). Conflicting perspectives on the SNAP program and its participants: Cost, health, individualism, and fraud. *Journal of Nutrition Education and Behavior, 48*(7), S90-S90. doi:10.1016/j. ineb.2016.04.239.

# **Appendix**

# Resources

## **Arthur W. Page Center for Integrity in Public Communication**

A research center at Penn State University dedicated to the study and advancement of ethics and responsibility in corporate communication and other forms of public communication.

## **Cause Communications**

A team of communications strategists who use communications to help drive positive social change. They work across sectors and silos to advance equal rights, greater opportunity, and better health in communities.

## **Common Cause Foundation**

A UK-based team working, amidst a large and growing international network, to strengthen and give voice to the compassionate values that underpin social and environmental concern.

#### Frameworks Institute

A think tank that helps mission-driven organizations communicate about social issues in ways that build public will to support progressive change.

### **New Media Advocacy**

A team of narrative strategists working at the intersection of communications, movement building, and cultural engagement.

#### **Safe States**

An alliance to strengthen the practice of injury and violence prevention. One focus area is on Policy Tools and Materials.

## **UNC's Center for Innovation and Sustainability in Local Media**

Supports existing and start-up news organizations through its dissemination of applied research and the development of digital tools and solutions.

#### **Working Narratives**

A non-partisan social justice organization dedicated to challenging injustice by empowering communities to address issues that affect their lives.

#### **World Day of Remembrance for Road Traffic Victims**

Started by the British road crash victim charity, Road Peace, in 1993 and adopted by the United Nations General Assembly in 2005, this international event takes place on the third Sunday in November every year to demonstrate the enormous scale and impact of road deaths and injuries.

# **Appendix**

# **Keyword glossary**

## **Episodic vs. Thematic frame**

Where an episodic frame would focus on an individual, a thematic frame would focus on the issue. An episodic frame focuses on a single event; a thematic frame focuses on trends over time (Frameworks Institute, 2017).

#### Intrinsic vs. Extrinsic values

Values are stable psychological factors that inform the development and pursuit of life goals, which organize and direct behavior over extended periods of time. Where intrinsic values are more inherently rewarding, extrinsic values are centered on external approval or rewards (Common Cause Foundation, 2014).

## Message frame

Defines the packaging of a piece of rhetoric in such a way as to encourage certain interpretations and to discourage others.

### **Pragmatism**

A practical, commonsensical approach to addressing problems or issues.

### Safety individualism

The act of attributing injury outcomes to individual choices while neglecting the broader social and physical contexts and network of factors that interact to contribute to traffic injury.

#### Safe Systems

A systems-based (or holistic) strategy which recognizes that crashes, injuries, and deaths ultimately result from a larger system of interacting factors. Implementing a Safe Systems approach means that there is a focus to actively understand the "whole" and to strategically intervene between interconnected factors in a way that optimizes safety. Taking a Safe Systems approach is to: 1) design for the humans in the system; 2) recognize the importance of speed and energy transfer in safety; 3) employ proactive tools to manage risks across an entire roadway network or population; and 4) foster integrated, collaborative, and coordinated action.

#### **Victim narrative**

A form of storytelling that focuses on the life of the victim of a crime or incident.



730 Martin Luther King Jr. Blvd. Suite 300 Chapel Hill, NC 27599-3430 info@roadsafety.unc.edu

www.roadsafety.unc.edu