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Introduction

Framing — as an area of research and risk communication strategy — spans several scholarly disciplines and professional fields. Frames as they appear in media coverage and policy debates can be thought of as interpretive storylines that set a specific train of thought in motion, communicating why an issue might be a problem or pose a threat, who or what might be responsible for it, and what should be done about it. For many experts and professionals, framing is an unavoidable reality of the communication process, especially for those working in public affairs or on complex policy problems (Nisbet & Scheufele 2009).

There is no such thing as unframed information, and most successful risk communicators are adept at framing, whether using frames intentionally or intuitively. Lay publics rely on frames to make sense of and discuss an issue; journalists use frames to craft interesting and appealing news reports; policymakers apply frames to define policy options and reach decisions; and experts employ frames to simplify technical details and make them persuasive (Scheufele 1999; Nisbet 2009a).

Framing, it should be noted, is not synonymous with placing a false spin on an issue, although some experts, advocates, journalists, and policymakers certainly spin evidence and facts. Rather, in an attempt to remain true to what is conventionally known about a complex topic, as a communication necessity, framing can be used to pare down information, giving greater weight to certain considerations and elements over others (Nisbet 2009c).

If individuals are given a potentially risky policy dilemma to consider, the different ways in which a message is presented or framed—apart from the content itself—can result in very different responses, depending on the terminology used to describe the problem or the visual context provided in the message. Over the past two decades, research in political communication, science communication and sociology has added to this early work on framing. The research explains how media portrayals in interaction with cultural forces shape the views of experts, journalists, policymakers and various segments of the public (Nisbet & Scheufele 2009).

In many risk-related policy debates such as those over climate change or food biotechnology, framing plays a central role. In these debates, uncertainty and complexity are high, decisions are often perceived as urgent, and reaching agreement among a plurality of stakeholders is contingent on managing competing

interests and values. As a result, public debate features many different competing claims to scientific authority, yet these claims often only obscure underlying political disagreements and values-based differences (Nisbet 2014).

For risk communication scholars and professionals, navigating the terrain of these complex risk-related policy debates requires a careful understanding of framing as both a cognitive and social process involving the news media and a variety of other related communication processes. Successful efforts at public engagement will depend on being able to manage media and public attention to an issue while also simultaneously framing the issue in advantageous or normatively desirable ways.

With these considerations in mind, I begin by describing media agenda-setting and priming as a closely related but unique process from media framing effects. I then describe research focusing on media framing effects as a cognitive and social process, emphasizing the need to carefully consider the relationship between frames as mental models and media packages that might apply to a specific issue and generalizable schema that shape our more global understanding of how society should work. In each case, I use examples from the debates over climate change and food biotechnology to illustrate core concepts and strategies relevant to risk communication professionals working to address complex policy problems.

Establishing the Criteria for Public Evaluations

Among the most relevant findings to risk communication is the ability of the news media to direct the focus of the public to certain issues over others. The news media “may not be successful most of the time in telling people what to think” famously observed Bernard Cohen in 1963, “but it is stunningly successful in telling its readers what to think about” (p. 13). Subsequent research on the “agenda-setting” effect of the media has provided repeated evidence that the issues portrayed in the media shape the issue priorities of the public. By giving attention to some issues over others, the media influences what the public perceives as most pressing and most important (Iyengar & Kinder, 1987; McCombs & Shaw, 1972; McCombs, 2007).

Relative to risk perceptions, a leading example of the agenda-setting influence of the news media is the relationship to public perceptions of crime. In the U.S. during the 1990s, although statistics tracking real world incidents of violent crime showed a national decline across the decade, polling showed that the proportion of Americans citing crime as a national problem actually increased from less than 5% in 1990 to 30% in 2000. This increase in public concern corresponded to a rise in coverage of crime at local television and cable news. In sum, public perceptions of crime over the decade followed television trends rather than real-world trends (Iyengar & McGrady, 2007).

Judgments Based on Salience and Accessibility. Journalists will often argue that they do not set the public's agenda, but rather follow audience demand for coverage of certain issues over others. Yet multiple lines of research cut against this view. For the past thirty years, studies tracking news attention and public perceptions typically find that a rise in overall news attention to an issue precedes a rise in public concern (McCombs, 2007; Rogers & Dearing, 1991). In addition, laboratory experiments, which are able to demonstrate direct causality, indicate that when subjects are repeatedly shown newscasts over a week, the top issues featured in the newscasts emerge as among the subjects' top national concerns (see Iyengar & McGrady, 2007 for discussion.)

Researchers explain the agenda-setting influence of the media by way of a memory-based model of opinion formation which assumes that 1) some issues or pieces of information are more accessible in a person's mind than others; 2) that opinion is to a large degree a function of how readily accessible these certain considerations are; and 3) that accessibility is mostly a function of 'how much' or 'how recently' a person has been exposed to these certain considerations (Kim, Scheufele, & Shanahan, 2002; Scheufele, 2000).

When individuals are asked to describe the issues of most concern to them, they are most likely to draw upon those issues that are most readily accessible in their short-term memory and therefore easily recalled. Research shows that accessibility is typically a direct function of news exposure. Moreover, when the media focuses on issues that are also closely connected to personal experience such as food safety or a volatility in energy prices, accessibility and therefore media agenda-setting is magnified (Nisbet & Feldman 2011).

Media agenda-setting effects matter to public judgments because they "prime" public evaluations. The issues or events that receive the heaviest coverage in the news – because of their greater accessibility in short term memory – often serve as the criteria by which the public evaluate the performance and credibility of a political leader, government agency, scientific organization, or corporation (Iyengar & Kinder, 1987; Nisbet & Feldman 2011).

Recognizing and anticipating the priming effects of news attention, when an issue or event rises on the overall news agenda, in order to protect their public image, political leaders and organizations are likely to take some form of action on the issue, even if only symbolically. For example, in the wake of Hurricane Katrina and the success of Al Gore's *An Inconvenient Truth*, for the first time, major environmental funders and leaders collectively agreed to make climate change their top policy priority, coordinating their lobbying efforts with Congress and the White House, and their investments in programs and initiatives. In this case, apart from their own individual judgments relative to climate change, among environmental leaders there was a recognition that their organization's members would expect more coordinated action (Nisbet 2011; Nisbet & Feldman, 2011).

Media priming also helps explain why major corporations have invested so heavily in promoting and protecting their social responsibility image. Over the past decade, in correlation to a rise in news attention to issues like sustainable agriculture, fair trade, renewable energy, and climate change, corporations recognize that consumers are more likely to give greater weight to their perceived social responsibility on these issues. As a result, companies have combined real changes in corporate practice with advertising, media, and branding campaigns to promote their environmental records (Nisbet 2011; Nisbet & Feldman 2011).

Setting the Context for Perceptions: The Case of Climate Change

Though sometimes confused with agenda-setting and priming, media framing effects are a distinct cognitive and social process shaping individual judgments and decisions. With limited time, resources and ability to process complex information, as we move through our daily lives trying to make sense of an almost constant torrent of ambiguous signals, situations and choices, we are heavily dependent on shifting cues that set the context for our perceptions. When we “frame” a complex science, health, or environment-related issue, we differentially emphasize specific cues relative to that complex subject, endowing certain dimensions with greater apparent relevance than they would have under an alternative frame (Nisbet, 2009; Scheufele, 1999; Scheufele & Scheufele, 2012).

For example, is climate change a grave environmental risk to animal species and ecosystems that requires regulation of industry to solve, or is it a public health threat to children and the elderly that requires government investment in clean energy technology? In the first context or “frame” set for perception, the emphasis is on the *risks to the environment*, protecting *nature* from harm and the need to *limit industry*. In the second frame, the emphasis is on the *risks to humans*, protecting *vulnerable people* from harm and the need to *aid industry* through government support of technological innovation.

The frame-setting process – establishing one context for perception versus another – is fundamentally different from media agenda-setting and priming effects which via *repetition* make some issues or attributes more *accessible* and *available* in short-term memory. In contrast, a frame, by making some considerations or attributions more *applicable* or *relevant* to an issue, need only be evoked *a few times* in order to be persuasive (Nisbet & Feldman 2011).

Frames exist as mental models that organize and interpret information about specific risk-related issues and as discursive, textual and/or visual packages that structure conversations, news reports and other media portrayals about an issue. Understanding the relationship between mental models and the interpretative packages available in broader public discourse is fundamental to understanding framing as a process of media effects and the impact on risk perceptions.

As mental models and organizing devices for communication, frames set the context for perception and discussion by selectively activating different cognitive and affective schema. If frames are the software by which we navigate the complexity of risks posed by a problem like climate change, then schema provide a deeper cognitive architecture, defining for us core concepts, such as the relationship between science and society or the government and the economy. Once activated, schema provide short cuts for reaching an opinion about a complex topic, serving as a basis for inference, and operating as a mechanism for storing and retrieving information from memory. Schema can also be value constructs and moral intuitions that guide evaluations of personal behavior and societal choices (Price, 1992; Price & Tewksbury, 1997; Scheufele & Scheufele, 2011).

In sum then, media and other discursive frames influence our judgments of complex policy debates when they are relevant — or “applicable” — to an individual’s specific existing interpretive schema. Framing effects will vary in strength as a partial function of the fit between the schemas a frame suggests should be applied to an issue and the presence of those schemas within a particular audience (Price & Tewksbury, 1997; Scheufele & Tewksbury, 2007).

Media frames, therefore, influence risk perceptions by connecting the mental dots for the public. They suggest a connection between two concepts, issues, or things, such that after exposure to the framed message, audiences accept or are at least aware of the connection. Alternatively, if a frame draws connections that are not relevant to something a segment of the public already values or understands, then the message is likely to be ignored or to lack personal significance (Nisbet 2009a; 2009b).

For example, environmental organizations working with religious leaders are attempting to generate news stories and media portrayals that emphasize the relationship between the risks posed by climate change and the teachings of specific religious traditions. As an increasing number of news stories, books, and TV accounts emphasizing the connection between the risks posed by climate change and the religious duty to protect the vulnerable or to “care for creation” appear, we would expect that religious Americans would grow more concerned by and accepting of climate change-related risks (Nisbet 2009a; Nisbet 2009b).

Communicating about climate change as a public health problem.

Consider an example where strategic framing is being used to communicate about the risks of climate change in a manner that resonates with issues of already strong concern to the broader public. In a series of studies conducted with George Mason University’s Edward Maibach and several colleagues we investigated how a diversity of Americans understand the health and security risks of climate change and how they react to information about climate change when it is framed in terms of these alternative dimensions. In this research funded by the Robert Wood Johnson Foundation, our goal was to inform the work of public health professionals, municipal managers and planners, and other trusted civic leaders as they seek to

engage broader publics on the health and security risks posed by climate change (see Nisbet, 2014; Weathers, Maibach, and Nisbet 2013 for overviews).

Framing climate change in terms of public health stresses climate change's potential to increase the incidence of infectious diseases, asthma, allergies, heat stroke, and other salient health problems, especially among the most vulnerable populations: the elderly and children. In the process, the public health frame makes climate change personally relevant to new audiences by connecting the issue to health problems that are already familiar and perceived as important. The frame also shifts the geographic location of impacts, replacing visuals of remote Arctic regions, animals, and peoples with more socially proximate neighbors and places across local communities and cities. Coverage at local television news outlets and specialized urban media is also generated (Nisbet 2009a; Weathers, Maibach, and Nisbet 2013).

Efforts to protect and defend people and communities are also easily localized. State and municipal governments have greater control, responsibility, and authority over climate change adaptation-related policy actions. In addition, recruiting Americans to protect their neighbors and defend their communities against climate impacts naturally lends itself to forms of civic participation and community volunteering. In these cases, because of the localization of the issue and the non-political nature of participation, barriers related to polarization may be more easily overcome and a diversity of organizations can work on the issue without being labeled as "advocates," "activists," or "environmentalists." Moreover, once community members from differing political backgrounds join together to achieve a broadly inspiring goal like protecting people and a local way of life, then the networks of trust and collaboration formed can be used to move this diverse segment toward cooperation in pursuit of national policy goals (Nisbet, Markowitz, & Kotcher, 2013; Weathers, Maibach, and Nisbet 2013).

To test these assumptions, in an initial study, we conducted in depth interviews with 70 respondents from 29 states; recruiting subjects from 6 previously defined audience segments. These segments ranged in a continuum from those individuals deeply alarmed by climate change to those who were deeply dismissive of the problem. Across all six audience segments, individuals said that information about the health implications of climate change was both useful and compelling, particularly when locally-focused mitigation and adaptation related actions were paired with specific benefits to public health (Maibach, Nisbet, Baldwin, Akerlof, and Diao 2010).

In a follow up study, we conducted a nationally representative Web survey in which respondents from each of the 6 audience segments were randomly assigned to 3 different experimental conditions allowing us to evaluate their emotional reactions to strategically framed messages about climate change. Though people in the various audience segments reacted differently to some of the messages, in general, framing climate change in terms of public health generated more hope and

less anger than framed messages that defined climate change in terms of either national security or environmental threats. Somewhat surprisingly, our findings also indicated that the national security frame could “boomerang” among audience segments already doubtful or dismissive of the issue, eliciting unintended feelings of anger (Myers, Nisbet, Maibach, and Leiserowitz 2012).

In a third study, we examined how Americans perceived the risks posed by a major spike in fossil fuel energy prices. According to our analysis of national survey data, approximately half of American adults believe that our health is at risk from major shifts in fossil fuel prices and availability. Moreover, this belief was widely shared among people of different political ideologies and was strongly held even among individuals otherwise dismissive of climate change. Our findings suggest that many Americans would find relevant and useful communication efforts that emphasized energy resilience strategies that reduce demand for fossil fuels, thereby limiting greenhouse emissions and preparing communities for fuel shortages or price spikes. Examples include improving home heating and automobile fuel efficiency, increasing the availability and affordability of public transportation, and investing in government-sponsored research on cleaner, more efficient energy technologies (Nisbet, Maibach and Leiserowitz 2011).

Framing Strategy in Policy Debates: The Case of Food Biotechnology

In a complementary line of research to the cognitive focus on framing effects just reviewed, scholars following the lead of sociologist William Gamson have adopted a “social constructivist” approach to media framing and its relationship to risk perceptions. According to this line of research, in order to make sense of political issues, citizens use as resources the frames available in media coverage, but integrate these packages with the mental frames forged by way of personal experience or conversations with others. Media frames might help set the terms of the debate among citizens, but rarely, if ever, do they exclusively determine public opinion. Instead, as part of a “frame contest,” one interpretative package might gain influence because it resonates with popular culture or a series of events; fits with media routines or practices; and/or is heavily sponsored by powerful political actors (Gamson, 1992; Gamson & Modigliani, 1989; Price, Nir, & Capella, 2005; Nisbet 2009b).

Controlling News Attention and Shaping Perceptions. The strategic framing of social problems and policy debates also influences public attention to risk-related issues while managing the “scope of participation” in a political debate (defined as the types and numbers of groups who are involved in policy making). In fact, across the history of many policy debates, power has turned on the ability to not only control attention to an issue within policy contexts or in the media, but also to simultaneously frame the nature of the problem and what should be done (Nisbet, Brossard & Kroepsch, 2003).

If a coalition relative to a complex problem is favored by the status quo in policymaking, it is in their best interest to frame issues in highly technical, scientific or legalistic ways and to downplay possible risks, since these interpretations tend to deflect wider news attention, and attract only narrow constituencies. Under these conditions, journalists lack the dramatic grist to set the storytelling mill in motion, meaning that overall news attention will remain low and sporadic, with coverage originating from the science and business beats or appearing in specialized advocacy media, rather than gaining the attention of political journalists and commentators at the major news outlets (Nisbet & Huges 2006;2007).

But, on the other hand, if an interest group is disadvantaged by the status quo in policymaking, it is usually in their best interest to re-frame the issue in terms of dramatic risks/costs and in moral ways since these interpretations are more likely to shift decision from regulatory arenas to overtly political contexts like Congress or the White House, where arguments emphasizing dramatic risks and morality have more sway. Under these conditions, it becomes potentially easier to mobilize a broader coalition of groups to challenge the status-quo and to generate widespread coverage from political journalists and commentators at major media outlets, thereby increasing the status of the issue on the overall news media agenda and shaping the risk perceptions of the wider public (Nisbet and Huges, 2006;2007).

Consider the example of food biotechnology. Previous research has attempted to understand why the issue has experienced relatively limited political conflict in the U.S., especially in comparison to that in the UK and several European countries. A major reason is that the biotech industry and scientists have been successful at limiting the scope of participation, as early policy decisions framed the issue around the technical aspects of scientific review and patenting rules. This ability to frame the terms of the debate and to limit the scope of attention and participation helped establish a virtual 'policy monopoly' within regulatory policy arenas such as the Food & Drug Administration and the Environmental Protection Agency with very little attention from Congress or the White House or beyond the science and business beats at newspapers or small audience advocacy-oriented media outlets (Nisbet & Huges 2006; 2007).

Though increased media attention to plant biotechnology and more dramatic definitions of the issue have surfaced in recent years, challenging the status quo in U.S. regulation, the ability of the biotech industry and allies in early policy decisions to frame the debate around short-term environmental and health risks have led to lasting and powerful feedback effects (Sheingate, 2005). The early success of biotech proponents in defining the terms of the debate is attributable in part to minimal media coverage, which made precedent setting 1990s market approvals of genetically-modified crops essentially 'non-decisions' for the wider public (Nisbet & Huges 2006/2007). This is in contrast to the UK and Europe where, from the beginning, Jasanoff (2005) and others have noted that there was a much wider scope of participation in policy decisions. The early inclusion of environmental, consumer and labor groups, and the comparatively stronger framing of the issue in

terms of transparency and public accountability, led to a very different European regulatory regime that took into account social and economic factors as well as the possibility of unknown future technical risks (Nisbet & Huges 2006; 2007).

Yet in the U.S. there are signs that the scope of participation and framing of the issue may be shifting. Critics have helped expand and intensify the issue public opposed to food biotechnology even as overall news attention has remained low by framing the issue in the context of parallel food system debates, by taking advantage of niche media, and by shifting the regulatory battle to states. Best-selling authors Michael Pollan, Mark Bittman and Jane Goodall along with specialized consumer magazines and popular documentaries like *Food Inc.* all link food biotechnology to ongoing debates over childhood obesity, the survival of traditional farmers, food safety, organics and animal welfare. Opponents of food biotechnology have also shifted focus to states such as California, Maine, and Washington where they have mobilized supportive issue publics to lobby on behalf of bills requiring mandatory labeling and/or have sponsored state ballot measures.

A Typology of Cultural Schema and Frames. Identifying the relevant frames in a policy debate as it takes place across various media and political arenas, and the cultural schema that different publics might draw upon to make sense of and employ those frames on behalf of their political goals, can be approached both deductively and inductively. Drawing on previous work, studies usually work from a set of cultural schema that appear to reoccur across policy debates and that organize our thinking and conversations about the social implications of science and technology (Nisbet 2009a; Nisbet 2009b).

These past studies have referred to these schema as frames. Yet by serving as the deeper cultural architecture and meaning generators by which we sort through the complex relationship between science, technology and societal risks, they are more accurately characterized as schema.

Originally identified by Gamson and Modigliani (1989) in a study of nuclear energy, the typology of cultural schema was further adapted in studies of food and medical biotechnology in Europe and the United States, and in analysis of the debate over climate change (Dahniden, 2002; Durant, Bauer, & Gaskell, 1998; Nisbet, 2009a; Nisbet & Lewenstein, 2002). These cultural schema include:

- *Social progress*: Improving quality of life, or finding solutions to problems. Alternative interpretation as harmony with nature instead of mastery, “sustainability.”
- *Economic development/competitiveness* - Economic investment, market benefits or risks; local, national, or global competitiveness.
- *Morality/ethics* - Right or wrong; respecting or crossing limits, thresholds, or boundaries.

- *Scientific/technical uncertainty*- A matter of expert understanding; what is known versus unknown; either invokes or undermines expert consensus, calls on the authority of “sound science,” falsifiability, or peer-review.
- *Pandora’s box / Frankenstein’s monster / runaway science* - Call for precaution in face of possible impacts or catastrophe. Out-of-control, a Frankenstein’s monster, or as fatalism, i.e. action is futile, path is chosen, no turning back.
- *Public accountability/governance*- Research in the public interest or serving private interests; a matter of ownership, control, and/or patenting of research, or responsible use or abuse of science in decision-making, “politicization.”
- *Middle way/alternative path*- finding a possible compromise position, or a third way between conflicting/polarized views or options.
- *Conflict/strategy*: A game among elites; who’s ahead or behind in winning debate; battle of personalities; or groups; (usually journalist-driven interpretation.)

A few key details about this typology are worth noting. First, these cultural schema as general organizing devices for public debate and should not be confused with specific policy positions. In other words, each schema can relate to pro, anti, and neutral arguments, though one set of advocates might more commonly activate one cultural schema over others. This distinction between schema and the valence of arguments becomes clearer after considering a few examples (Nisbet 2009b).

Specific to food biotechnology, opponents have framed the issue via media reports and specialized niche media in terms of an idealized, pastoral vision of small-scale farms and the “natural,” while also emphasizing fears of environmental contamination. These frames of reference activate cultural schema related to *social progress*, in this case specific to living in harmony with nature rather controlling it, and relative to precaution in the face of *scientific uncertainty*. Activists have also focused on the perceived inadequacy of regulation to ensure choice for farmers and consumers and to be responsive to citizens, emphasizing fairness, transparency, and equity. This framing strategy activates cultural schema related to *public accountability*, particularly science serving the public interest rather than private interests (Nisbet, 2012).

Industry and other proponents have countered by emphasizing via media reports and advertising the value of food biotechnology to meet world food demand in an era of climate change and growing population. This frame of reference activates the cultural schema of *social progress*, but emphasizes science and technology as a tool for mastering nature’s adverse risks and as solving problems. Proponents have also strongly criticized anti-biotech activists for destroying crops

and research installations, for promoting misinformation, and for generating unfounded public fears. This frame of reference activates cultural schema related to *public accountability*, emphasizing the pollution of science by ideology. In each of the above examples, specific frames are also often efficiently translated and conveyed by way of “frame devices.” These triggers of various schema include catch phrases (i.e. “Frankenfood”), metaphors (i.e. comparing food biotech to “playing God in the Garden”), and visuals (i.e. an African farmer standing in an abundant field of crops as an image of social progress) (Nisbet, 2009a; Scheufele, 1999).

Reflections for Theory

As reviewed in this chapter, to fully understand the relevance of media framing to risk communication in policy debates requires scholars and professionals to look across multiple disciplinary approaches to research ranging from the cognitive to the sociological. In this sense, as Stephen Reese (2007) suggests, the study of risk communication and framing effects in policy debates is best addressed through the application of a “bridging model” approach that integrates qualitative, quantitative, and interpretative methods; and psychological, sociological and critical traditions; while actively drawing connections to professional practice (see also Nisbet 2009b).

Adopting such a bridging model approach suggests several related areas in need of further investigation by scholars and consideration by professionals. First, the methods we deployed in our research on re-framing climate change as a public health problem as well as the typology first introduced by Gamson are not only useful resources for better understanding public opinion and media coverage, but for scholars the methods and principles described are also generalizable models for conducting various modes of framing effects research across risk-related debates. For example, our research on climate change and public health, offers a useful methodological model for pairing audience segmentation strategies with the qualitative and experimental testing of different framed messages. Moreover, for many policy debates, Gamson’s typology can inform the selection and design of messages tested in experiments; hypotheses generated about media effects evaluated in survey studies; and the identification and coding of open-ended responses generated in qualitative interviews of subjects or in the coding of patterns in news coverage.

Risk communication scholars are also still struggling to catch up to the rapid changes in our media system and what they might mean for understanding framing effects. For example, in complex policy debates such as those over climate change and food biotechnology, the editorial and business decisions at prestige news outlets have likely indirectly amplified differential risk perceptions across segments of the news audience. The *New York Times* and *Washington Post*, most notably, have cut back on news coverage of climate change and other science issues, letting go of many of their most experienced reporters, allowing advocacy-oriented media outlets and commentators to fill the information gap. As a consequence, careful

reporting at outlets like the *New York Times* on the technical details of science and policy have been replaced by morally framed interpretations from bloggers and advocacy journalists at other outlets that often dramatize and distort the risks related to these issues. Online news and commentary are also highly socially contextualized, passed along and preselected by people who are likely to share worldviews and political preferences. If an individual incidentally “bumps” into news about climate change or food biotechnology by way of Twitter, Facebook, or Google +, the news item is likely to be the subject of meta-commentary that frames the political and moral relevance of the information (Scheufele and Nisbet 2012).

Taking advantage of these self-reinforcing spirals, advocacy groups devote considerable resources to flooding social media with politically favorable comments and purposively selected stories, anticipating that many news consumers may incidentally “bump” into these comments and stories by way of their social media networks. This trends, therefore, suggests that in today’s social and participatory news system, many news consumers are potentially exposed to multiple frames of reference when engaging with a single news item. Even before engaging with the framing featured in a news story, today’s news consumer is potentially exposed to the frame emphasized in the blog post, Tweet or Facebook feed that called their attention to the new story. If after reading the news story, the individual decides to read the comment section, additional framing effects may occur (Brossard 2013; Scheufele and Nisbet 2012).

Even when individuals, prompted by a focusing event like extreme weather or news of a major scientific report do seek out more information about climate change or food biotechnology via Google and other search engines, further selectivity is likely to occur. In this case, for example, liberals might choose to search for information on “climate change” or “frankenfoods” and encounter one set of differentially framed search results; whereas a conservative searching for information on “global warming” or “genetically modified food” encounters an entirely different set of search results. Not only does word choice shape the information returned through Google, but so does the past browsing and search history of the individual, adding an additional layer of selectivity and bias to the information encountered (Brossard 2013).

Reflections for Practice

For professionals, Gamson’s generalizable framing typology and the insights from new research on social media discourse can also serve as valuable and low-cost diagnostic tools. In strategy sessions with colleagues, Gamson’s typology – for example -- can be used to identify and categorize the types of frames as they are being deployed by multiple parties and groups in a policy debate; to track how these frames appear differentially across different news outlets and Web sites; and to link these frames back to the deeper cultural meanings that they might trigger. Professionals can do this informally by gathering examples of news coverage and

commentary from both the mainstream and advocacy press; analyzing text, video and images from web sites and advertisements; by gathering a range of polling results and noting differences in responses by question wording; and by observing and analyzing discussion by way of informal focus groups of friends and colleagues.

Conclusions

Looking to the future, risk communication scholars and professionals can learn from each other as they experiment with “big data” analysis tools that can sample, capture, and code social media discussion of risk-related policy debates. A relevant next step in line with the research reviewed in this chapter is to analyze various social media statements and forms of expression by way of carefully developed and generalizable typologies of schema and frames. In this way, patterns of selectively framed discourse about a subject like climate change or food biotechnology can be tracked in real time, by geographic location, and in relation to focusing events across online networks of groups and audience segments. As the 2012 Barack Obama presidential campaign showed (Carey 2012), behavioral scientists can work effectively in tandem with practitioners to design and run controlled experiments to test the effects of exposure to differentially framed social media conversations as they might be encountered online. This type of collaboration will likely benefit our overall understanding of the role of media framing in complex policy debates while also fine tuning the communication strategies of practitioners and leading to methodological innovation.

GLOSSARY ENTRIES

Media Framing: Involves the process of selectively emphasizing one aspect or dimension of a complex subject over another. Media “frames” set a specific train of thought in motion, communicating why an issue might be a problem or pose a threat, who or what might be responsible, and what should be done.

Media Priming: The issues or events at any given moment that are receiving the greatest amount of media attention often serve as the criteria by which the public evaluate the performance and credibility of a political leader, government agency, scientific organization, or corporation.

ADDITIONAL READINGS

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