Mass Media and Policymaking

Stuart Soroka (McGill University)
Andrea Lawlor (McGill University)
Stephen Farnsworth (University of Mary Washington)
Lori Young (University of Pennsylvania)

Mass media can, and often do, play a critical role in policymaking. The typical view of media is that they matter in the early stages of the policy process — that media can help to set an agenda, which is then adopted and dealt with by politicians, policymakers, and other actors. The impact of media is rarely so constrained, however. Our argument here, in short, is that media matter, not just at the beginning but throughout the policy process.

Many of the standard accounts of policymaking have a much too narrow view of the timing of media effects. That said, the ways in which mass media can matter are relatively well understood. Existing work tells us that media can draw and sustain public attention to particular issues. They can change the discourse around a policy debate by framing or defining an issue using dialogue or rhetoric to persuade or dissuade the public. Media can establish the nature, sources, and consequences of policy issues in ways that fundamentally change not just the attention paid to those issues, but the different types of policy solutions sought. Media can draw attention to the players involved in the policy process and can aid, abet or hinder their cause by highlighting their role in policymaking. Media can also act as a critical conduit between governments and publics, informing publics about government actions and policies, and helping to convey public attitudes to government officials.

Allowing for the possibility that any and all of these effects can be evident not just in the early stages but throughout the policy process makes clear the potentially powerful impact we believe that media can have on policy. Indeed, mass media are in the unique position of having a regular, marked impact on policy, but from outside the formal political sphere, often without even being recognized as a policy player.

This chapter reviews the state of the literature on media and policymaking. It reviews two of the most prominent theories in the study of media and

policymaking: agenda-setting and issue framing. It then considers some of the normative implications of the regular impact of media on policymaking. Is the fact that media matter to policymaking a good thing? There are benefits, to be sure, but also costs, and we consider below the costs associated with the well-known event-driven, sensationalist tendencies in media content. We then finish with a brief example from Canadian environmental news coverage; an example which illustrates some of the problematic tendencies in media content, and highlights some of the issues with media as a policy actor.

Agenda-Setting and Issue Attentiveness

The policy agenda-setting literature has its roots in early work in political behaviour focused on how media coverage of political events impacts electoral outcomes. Berelson, Lazarsfeld, and McPhee's (1954) seminal study on voting, for instance, notes that media persuades individuals by prioritizing particular stories over others, or by airing a greater volume of stories related to some policy domains, but not others. McCombs and Shaw's (1972) Chapel Hill study, which spawned a vast literature on public agenda-setting, examines the media's role in focusing public attention on particular issues, concluding that the media can effectively "set" the public agenda by consistently and prominently featuring issues in their news coverage. Cobb and Elder's (1972) early work is the policy-oriented equivalent; and these authors were followed by a growing body of literature focused on the sources of the policy agenda, that is, the "general set of issues that are communicated in a hierarchy of importance at a point in time" (Cobb and Elder 1972/1983: 14).

Though by no means the only source of the policy agenda, existing work suggests that media can be an important one. Consider work by Flickinger (1983) and Mayer (1991), for instance, on the role of media in the rise of consumer protection as a policy issue, or Pritchard's (1986) work on the impact of media coverage on the decision to prosecute murderers. (Also see Pritchard's (1992) review of the role of the news media in public policy.) All of this work points towards an impact of media on policymakers that is very similar to what Cohen famously observed about the public, namely, that the mass media "may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about" (Cohen 1963: 13). The policy equivalent — mass media may not define the nature or direction of policy change, but can certainly steer attention towards certain policy domains over others — is of no small consequence. Recent work by both Kingdon (1995) and Baumgartner and Jones (1993) has made this especially clear. For each, issue attentiveness is a critical precursor of policy change.

The same was true in Anthony Downs' (1972) work on the "issue attention cycle," the canonical model of public issue attentiveness. Downs suggested that (policy) issues move cyclically in and out of the public consciousness. The lifecycle of an issue moves incrementally from periods of low to high salience, ultimately retreating to the background after the public has moved onto to other issues. The notion itself is not earth-shattering, but Downs' description of the process is valuable. It also points to the role of media in affecting change in issue salience.

Note too that while most of the preceding work focuses on the role of media in affecting some kind of aggregate policy agenda, the role of media in setting the policy agenda can also be seen at the individual level, that is, impacting individual political and policy actors directly. Politicians are affected by media in the same way as ordinary citizens (Eilders 2001; Dearing and Rogers 1996). They rely on media cues to prioritize information and to disseminate public opinion (Walgrave and van Aelst 2006: 100; Cook et al. 1983). Politicians can be even more susceptible to media content depending on whether they are subject to electoral punishment on a set of issues (Kingdon 1984). However, legislators, like voters, cannot pay attention to all issues at a given time; their attention is finite, and therefore they tend to focus on key issues that are beneficial to their constituents, country and indeed, their own career. Unsurprisingly, there are often high levels of congruence among these issues and the issues that are of concern to the public (Baumgartner, Jones and Leech 1997: 350).

Of all this said, media quite clearly do not matter to all policy issues all the all the time, and there is a growing body of work exploring the ways in which media influence varies systematically across issues. Some work has compared the impact of media across issues directly. Soroka (2002), for instance, argues for three different issue types, where "sensational" issues — characterised by low complexity and the possibility for dramatic events — are those for which media are most likely to play a leading role. (Also see Walgrave et al. 2007.) Indeed, there are a number of studies suggesting that the complexity of issues seriously constrains the potential for media effects, on both the public and policymakers (e.g., Zucker 1978; Yagade and Dozier 1990); and a series of studies that focus on the role of often sudden and unexpected "focusing events" in attracting media, and then policy, attention to issues (e.g., Birkland 1998; Kingdon 1994). The impact of media on policy also appears to be contingent on the source of the news: reliable and respected news outlets have more impact than marginal and questionable news sources (Bartels 1996). Additionally, the possibility that media have a marked impact on the political agenda increases when there is heightened coverage of the same issue, at the same time, by different media outlets (Eilders 2000, 2001).

Even with these caveats, the accumulated literature suggests an important (and often independent) role for media in determining which issues are important, when — for the public, and for policymakers as well. Setting the agenda is just one way in which media may matter to policy, however. We explore a second below.

Issue Framing

As with agenda-setting, the framing literature spans analyses of both policymaking and public opinion. Druckman (2001: 1042; drawing on work by Rabin 1998, among others) offers a cogent definition: " a framing effect is said to occur when, in the of describing an issue or event, a speaker's emphasis on a subset of potentially relevant considerations causes individuals to focus on these considerations when constructing their opinions." The extent to which this kind of framing is seen as separate from agenda-setting varies somewhat — some authors choose to see framing mainly as shifts in attentiveness to sub-issues (see, e.g., McCombs, Shaw and Weaver 1997; McCombs 2004). Others argue that while agenda-setting looks at story selection as determinants of public perceptions of issue importance, framing looks at the way those issues are presented (see, e.g., Price and Tewksbury 1997: 184). We take the view here, in line with a vast body of work on policymaking, that it is worth considering framing as distinct from agenda-setting.

Framing theory is based on the belief that how an issue is characterized to an audience will influence how it is understood (see, e.g., Scheufele and Tewksbury 2007). Put differently, issue framing refers to the selective exposure of information to an audience with the intent of shaping their understanding of an issue; it is the "selection of — and emphasis upon— particular attributes for the news media agenda when talking about an object" (McCombs 2004:87). Media can apply frames to issues in order to organise a storyline around a series of events (e.g., Gamson and Modigliani 1987), or to instruct or persuade the audience in how to evaluate the information being given to them in a predictable way (e.g., McQuail 1994). Framing issues presupposes that the information presented to the public will change the way that they view an issue. In other words, framing an issue involves "select[ing] some aspects of a perceived reality ... in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation" (Entman 1993: 52). To frame a story is to often withhold some information or prioritize some facts over others. In fact, most frames are, according to Entman (1993), as defined by what they omit or obscure as what they include. (And note that motives for inclusion or exclusion of information may be conscious or unconscious. See Gamson 1989.)

Frames often influence the direction of policy by pulling values or emotion into the discussion. Stone argues that problem identification often focuses on framing a story in a way that attributes cause and assigns blame (1989: 282). According to Iyengar (1991), thematic frames (those that give information about general trends such as poverty or social welfare) tend to promote a sense of social or institutional responsibility, while episodic frames (those that reference individuals or personal experiences or and stories) place responsibility on the individual. Frame types prime social values differently, and simultaneously establish the salience of the subject and promote a particular policy direction (Sniderman, Brody and Tetlock 1991).

Framing is not an activity for media alone, of course. Policymakers are not simply affected by issue framing in media, they actively engage in policy framing. Indeed, the policy literature on framing is much more focused on the ways in which policy re-framing by politicians and/or bureaucrats can shift attentiveness to or attitudes towards an issue. Consider Edelman's (1997) work on the role of language and symbols in politics, for instance, connected to a broader body of constructionist accounts of the policy process (e.g, Lasswell 1949; Spector and Kitsuse 1977; Rosenau 1993). Consider also Fischer's (2003) discussion of politicians' use of rhetorical devices to frame an issue and sway public opinion. Using the example of hiring policy, Gamson and Modigliani (1987) show that formal terms in thematic, policy-oriented frames (i.e. "affirmative action") may lend the frame more credibility than vernacular or emotionally charged language (i.e. "preferential treatment), thereby impacting how audiences receive the frame and accept policy direction from elites. (Also see Gamson 1992.)

Media as a Policy Actor: Challenges

Clearly, media matter to policy, throughout the policy process, and in many different ways. Is this a good thing? It's an inevitable thing, surely — it is nearly impossible to imagine modern politics and policymaking without some kind of media involvement, after all. Even so, we should consider some of the issues related to media's role in the policy process. Here, we review the considerable body of work that criticizes the nature and tone of media content on policy issues. As we shall see, this work raises serious questions about the potential for and difficulties with the role of mass media in policymaking.

Note first that work in political communication routinely offers largely critical assessments of the ability of news content to contribute to informed public debate, particularly with respect to television news. Biases in reporter coverage and the use of active conflict frames – key journalistic tools in other areas of

media coverage – are highlighted as important constraints. Studies fault reporters for focusing on the trivial, for being too closely tied to official sources, for not providing their viewers with enough context to understand contentious policy options, for their bias and for a lack of technical proficiency in the matters about which they write (Entman 2004; Farnsworth and Lichter 2006, 2011; Herman and Chomsky 1988; Iyengar 1991; Iyengar and Kinder 1987; Larson 2001; McChesney 1999; Patterson 1994).

Research also questions the possibility that journalistic norms serve to create misleading news stories. Coverage of environmental issues stands as one example of this phenomenon. Even with major issues that have been repeatedly featured in the media, such as the global warming debate, scholars note that attempting to provide roughly equal treatment of both sides of a story can "distort" the reality of widespread scientific agreement regarding climate change (Boykoff 2005). Rather than focus on the preponderance of scientific evidence that supports the global warming hypothesis, scholars argue that U.S. news reports have tended to give roughly equal weight to skeptics with little peer-reviewed evidence (Boykoff 2005; Mooney 2004).

Other journalistic norms may also reduce the likelihood of effective/informative policy discussion in the mass media. Reporters often prefer conflict frames to increase news consumer interest, but the news reports that emerge often lack sufficient context (Iyengar 1991; Iyengar and Kinder 1987). Emphasizing the conflict frame of environmental debates decreases public awareness of the scientific consensus regarding the existence of human-triggered climate change, for instance (Corbett and Durfee 2008; Nisbet and Myers 2007). Content analyses of climate change news in the *New York Times*, the *Washington Post*, the *Los Angeles Times* and the *Wall Street Journal* from 1998 through 2002 suggest that the journalistic attempts to be even-handed sowed far greater public doubts about global warming than exist within the scientific community (Boykoff and Boykoff 2007). Studies of television news have found that these attempts to provide balance in stories made scientific findings on climate change appear to the public as far more tentative than they actually were (Boykoff 2007a).

Additional problems with media coverage of complicated policy domains have emerged in other studies. First, scientific uncertainty and other technical matters tend to be papered over by reporters who don't mention that correlation is not causation, or that preliminary findings are tentative (Murray et al. 2001). Complexities, in other words, too often are ignored in favor of a more compelling and definitive, if less accurate, narrative. In cases where policy specialists offer an interpretation that is too nuanced or too technical (others might say "accurate"), reporters are tempted to rely on environmental activists who are quicker with a

pithy quote, even though they may not possess the credentials of the less-quotable scientific experts (Lichter and Rothman 1999). Part of the problem may be the relatively limited policy expertise possessed by many reporters. Work suggests, for instance, that a lack of expertise has been important in journalists' susceptibility to marginal claims of potential health hazards, such as the relative dangers posed by pesticides on apples or Bisphenol A (BPA) in water bottles when compared, for example, to cigarette smoking or obesity (Murray et al. 2001; Lichter 2009).

Second, when elected officials weigh in on policy, political issues tend to become increasingly prominent in the public discussion. That is, the interaction of politics and policy in the media tends to reduce attention to substantive policy matters and refocus concern on estimations of politically viable policy options (Miller et al. 1990; Wilkins and Patterson 1991).

Third, and perhaps most relevant, one problem in policy coverage by the media is that the very long-term nature of some policy domains works against the traditional newsroom norms of timeliness and novelty (McCright and Dunlap 2003; Trumbo 1995). While news coverage can focus intensely on scientific issues when a hurricane makes landfall or when a severe drought decimates crop yields, media attention can evaporate as quickly as it emerges (Mazur 2009; Mazur and Lee 1993). For instance, content analysis of climate change reports in the *New York Times* and *Washington Post* from 1980 to 1995 shows an attention cycle of media interest in global warming, where coverage increases in the early stages of discussion but erodes over time (McComas and Shanahan 1999). Early coverage was anchored by dire projections from scientists, while a middle phase of coverage focused on disagreements among scientists to maintain interest, and a later phase of reduced coverage concentrated on the economic costs and political debates over potential remedies. The rapid turnover of issues in mainstream news works against gradual long-term stories like climate change, particularly if the dire early predictions do not appear to come to pass shortly after they are made (Stevens 1993).

An Expository Analysis:
Environmental Coverage in Canada[1]

The preceding section has drawn on work focused on environmental policy in particular for good reason: there is a growing body of work dealing with the problems with media coverage of environmental issues. A recurring theme is the tendency for a strong connection between environmental coverage and major

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[1] This section draws on analyses in Soroka et al. 2009.

events — or, more precisely, a lack of environmental coverage in the absence of major weather or climate events. For instance, a comparison of global warming news in top circulation newspapers in the U.S. and the UK found a much greater volume of coverage in the UK, though the number of news reports in both nations increased notably (and temporarily) around key environmental events, such as new expert reports on greenhouse gas emissions caused by air travel (a key issue of the G8 summit in June 2005), and the release of Al Gore's film, An Inconvenient Truth, a year later (Boykoff 2007a).

The biggest challenge in media coverage of environmental politics may be, then, that despite the long-term nature of many environmental issues, environmental news is really not all that different from other types of news: as with coverage of a wide range of policy issues, events with immediate impacts are both easier and more attractive to cover than continuous monitoring of a known issue. And in the absence of such events, regardless of the actual state of the environment, environmental issues will disappear from the media agenda (and quite possibly the policy agenda as well).

This event-driven tendency in media is relatively easily illustrated. We focus here on a body of content-analytic data of all news stories from the nightly newscast for CTV in Canada (the nightly newscast with the largest audience share) from 1999 to 2009. Data were gathered using full-text indices in Nexis, and relying on the Nexis topic field to identity stories for which a "major theme" (based on the Nexis subject-coding scheme) was the environment. In total, the database includes 1,789 news stories.

We begin by subject-coding stories based on an iterative automated process. We first look at frequencies for all words and phrases in the stories (analyzed together), using WordStat. We then take the most common words and phrases — those relating to the environment — and build a dictionary of commonly-used terms. We add these terms, gradually, to the topic dictionary — the product of a combination of data processing and common sense. A story is then coded as a given topic if at least two keywords for that category were present in the text. The resulting codes thus are indicators of the prevalence of specific language relating to various environmental issues.

Our focus here is on two topics in particular: pollution/climate change, and weather and natural disasters.[2] Figure 1 shows trends in coverage for both topics

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[2] The first is captured using the following keywords: acid rain, air, Carbon, climate change, emission*, global warming, greenhouse gas*, pollution, pollute, pollute*, toxic, toxin*, ozone; the second is based on: flood*, forest fire*, wildfire*, wild fire*, hurricane*, storm*, drought*, rain*, wind*, ice, weather, tornado*.

over time. What is most important to draw from the figure is (a) the tendency for weather and natural disasters to produce more news than pollution and climate change and (b) the lack of any upward trend in coverage of environmental issues in spite of increasing environmental difficulties worldwide. Media coverage of pollution and climate change does not, at least in terms of the volume of coverage, appear to reflect trends in environmental indicators.

Figure 1. Trends in Media Coverage
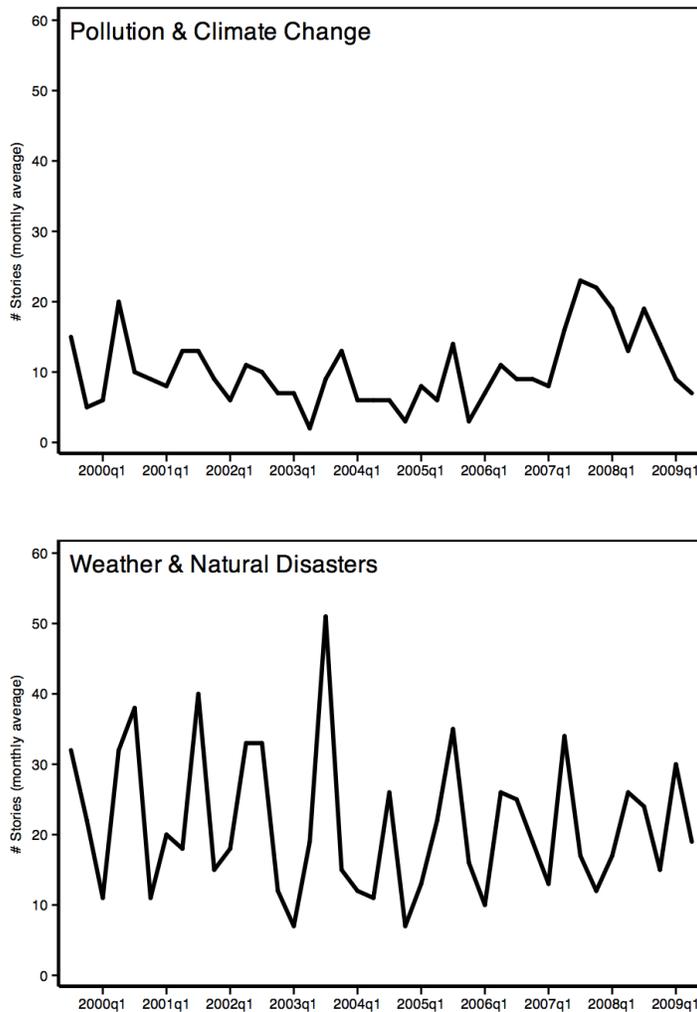
The more striking finding from these data is shown in Table 1, however. The table presents results from a relatively simple Granger causality test — a statistical test of the temporal relationship between the number of articles relating to disasters/weather and the number of articles dealing with pollution/ climate change.

Analyses rely on weekly data, and Granger tests proceed as follows. Total current coverage of disasters/weather is regressed on the last week's coverage of disasters/weather, as well as the last week's coverage of pollution/climate change. Results show, controlling for past coverage of disasters/weather, whether pollution/climate change coverage systematically leads to disasters/weather coverage. The same model is also estimated in the opposite direction: pollution/climate change coverage is regressed on last week's coverage of pollution/climate change, and last week's coverage of disasters/weather. Drawing on both models, we have a good sense for the extent to which disasters/weather leads pollution/climate change, and vice versa.

Table 1. Coverage of Natural Disasters/Weather and Pollution/Climate Change

	DV: Disasters/ Weather $_t$	DV: Pollution/ Climate Change $_t$
Disasters/Weather $_{t-1}$	.315*	.061a
	(.109)	(.035)
Pollution/Climate Change $_{t-1}$	.019	.259*
	(.051)	(.043)
Constant	1.114*	.776*
	(.109)	(.090)
R-sq	.101	.079

N=520. * $p < .05$; a $p < .10$. Estimates rely on weekly data. Cells contain coefficients from an OLS vector regression, with standard errors in parentheses.

Both models are estimated simultaneously using OLS vector autoregression; estimated coefficients are shown in Table 1. In the first column, we see that current coverage of disasters/weather is related to the previous week's coverage of disasters/weather. (The coefficient is .32, and is statistically significant.) The same is not true for the previous week's coverage of pollution/climate change. That is, there is no relationship between current coverage of weather or disasters, and the preceding week's reports on pollution or climate change.

The second column includes the model for current coverage of pollution or climate change. Here, we see that current coverage of pollution and climate change is related to last week's coverage of climate change (a coefficient of .26), but also to last week's coverage of disasters and events (a coefficient of .06). There is, then, evidence here of a unidirectional causal effect: coverage of pollution and climate change is systematically (and positively) led by coverage of

weather and disasters. (Put differently, coverage of disasters and events "Granger-causes" coverage of pollution and climate change.)

In sum, these data suggest that substantive coverage of environmental themes such as air pollution, global warming and climate change increases after major weather-related disasters and events. Indeed, one interpretation — drawing on the literature discussed above — is that coverage of pollution and climate change is dependent on weather-related disasters and events. As we might expect, reporters apparently find it hard to write about climate change absent such things as high temperatures and weather-related disasters. A sustained conversation on the environment is unlikely, our findings suggest, absent a steady stream of floods, hurricanes, ice storms, power blackouts and other climate mayhem.

Conclusions

There is little doubt that mass media play an important role in policymaking. A growing body of literature highlights this role, both in terms of issue attentiveness and policy framing. We have argued here, however, that it is important to note, first, that media matter not just at the beginning but throughout the policy process, and second, that media's involvement in the policy process poses some real difficulties. In short, the complexities of policymaking are likely not well-served by well-known tendencies in media coverage. That media matter to policymaking seems beyond a doubt. Whether their contribution tends to be positive on balance is, however, up for discussion.

Bibliography

Bartels, L. M. 1996, September. Politicians and the Press: Who Leads, Who Follows? In *APSA*. San Francisco, CA.

Baumgartner, Frank R., and Bryan D. Jones. 1993. *Agendas and Instability in American Politics*. Chicago: University of Chicago Press.

Baumgartner, Frank R., Bryan D. Jones, and Beth L. Leech. 1997. "Media Attention and Congressional Agendas." In *Do the Media Govern?: Politicians, Voters, and Reporters in America*, ed. Shanto Iyengar and Richard Reeves. Thousand Oaks, CA: Sage.

Berelson, Bernard R. , Paul F. Lazarsfeld, and WIlliam N. McPhee. 1954. *Voting: A Study of Opinion Formation in a Presidential Campaign*. Chicago: University of Chicago Press.

Berger, B. 2001. "Private Issues and Public Policy: Locating the Corporate Agenda in Agenda-Setting Theory." *Journal of Public Relations Research* 13 (2): 91–126.

Birkland, Thomas A. 1998. "Focusing Events, Mobilization, and Agenda Setting." *Journal of Public Policy* 18 (1): 53-74.

Birkland, Thomas A. 2007. "Agenda Setting in Public Policy." In *Handbook of Public Policy Analysis*, ed. Frank Fischer, Gerald J. Miller and Mara S. Sidney. London: Taylor and Francis.

Boykoff, Maxwell. 2005. "The disconnect of news reporting from scientific evidence." Nieman Reports, Harvard University, Winter: 86.

Boykoff, Maxwell. 2007a. "From convergence to contention: United States mass media representations of anthropogenic climate change science." Transactions of the Institute of British Geographers 32: 477-489.

Boykoff, Maxwell. 2007b. "Flogging a dead norm? Newspaper coverage of anthropogenic climate change in the United States and the United Kingdom from 2003-2006." Area 39: 470-481.

Boykoff, Maxwell T., and Jules M. Boykoff. 2007. "Climate change and journalistic norms: A case study of US mass media coverage." Geoforum 38: 1190-1204.

Cobb, R.W. and C.D Elder. 1972/1983. *Participation in American Politics: The Dynamics of Agenda-Building* Boston: Allyn and Bacon.

Cohen, Bernard C. 1963. *The Press and Foreign Policy*. Princeton, NJ: Princeton University Press.

Corbett, Julia B., and Jessica Durfee. 2008. "Testing public (un)certainty of science: Media representations of global warming." Science Communication 26: 129-151.

Dearing, James W., and Everett M. Rogers. 1996. *Agenda-Setting*. Thousand Oaks, CA: Sage.

Downs, Anthony. 1972. "Up and Down with Ecology: The "Issue Attention Cycle"." *The Public Interest* 28:35-50.

Edelman, M.J. 1977. *Political Language*. New York: Academic Press.

Eilders, C. 2000. "Media as Political Actors? Issue Focusing and Selective Emphasis in the German Quality Press." *German Politics,* 9 (3): 181–206.

Eilders, C. 2001. Conflict and Consonance in Media Opinion: Political Positions of Five German Quality Papers. Berlin: WZB Discussion Papers.

Entman, Robert. 1993. "Framing: Toward Clarification of a Fractured Paradigm." *Journal of Communication* 43 (4): 51-58.

Entman, Robert M. 2004. Projections of Power: Framing News, Public Opinion and Foreign Policy. Chicago: University of Chicago Press.

Farnsworth, Stephen J., and S. Robert Lichter. 2006. The Mediated Presidency: Television News and Presidential Governance. Lanham, Md.: Rowman and Littlefield.

Farnsworth, Stephen J., and S. Robert Lichter. 2011. The Nightly News Nightmare: Media Coverage of U.S. Presidential Elections, 1988-2008. Lanham, MD: Rowman and Littlefield. Third Edition.

Fischer, Frank. 2003. *Reframing Public Policy: Discursive Politics and Deliberative Practices.* Oxford: Oxford University Press.

Flickinger, Richard. 1983. "The Comparative Politics of Agenda-Seeting: The Emergence of Consumer Protection as a Public Policy Issue in Britain and the United States." *Policy Studies Review* 2(3): 429-44.

Gamson, W.A. 1989. "News as Framing: Comments on Graber." American Behavioral Scientist 33: 157-66.

Gamson, W.A., and A. Modigliani. 1987. "The Changing Culture of Affirmative Action." In *Research in Political Sociology*, ed. R.G. Braungart and M.M. Braungart. Greenwich, CT: JAI Press.

Gandy, O. H., Jr. 1982. *Beyond Agenda Setting: Information Subsidies and Public Policy.* Norwood, NJ: Ablex.

Herman, Edward S., and Noam Chomsky. 1988. Manufacturing Consent: The Political Economy of the Mass Media. New York: Panetheon.

Hilgartner, Stephen, and Charles L. Bosk. 1988. "The Rise and Fall of Social Problems: A Public Arenas Model." *American Journal of Sociology* 94 (1): 53-78.

Iyengar, Shanto. 1991. Is Anyone Responsible? How Television Frames Political Issues. Chicago: University of Chicago Press.

Iyengar, Shanto. 1993. "Agenda-Setting and Beyond: Television News and the Strength of Political Issues." In *Agenda Formation*, ed. William Riker. Ann Arbor: University of Michigan Press.

Iyengar, Shanto, and Donald R. Kinder. 1987. News That Matters. Chicago: University of Chicago Press.

Jensen, Carsten. 2009. "Policy Punctuations in Mature Welfare States." *Journal of Public Policy* 29 (3): 287-303.

Kingdon, John. 1984. *Agenda-Setting, Alternatives and Public Policies.* New York: Harper Collins.

Lang, Kurt, and Gladys Engel Lang. 1966. "The Mass Media and Voting." In *Reader in Public Opinion and Communication*, ed. Bernard Berelson and Morris Janowitz. New York: Free Press.

Larson, Stephanie. 2001. "Poll coverage of the 2000 presidential campaign on network news." Paper delivered at the 2001 Annual Meeting of the American Political Science Association, San Francisco.

Lasswell, Harold D. 1949. "Style in the Language of Politics." Pp. 20-39 in *The Language of Politics: Studies in Quantitative Semantics*, Harold Lasswell, N. Leites and Associates, eds. New York: George Stewart.

Lichter, S. Robert, and Stanley Rothman. 1999. Environmental Cancer: A Political Disease? New Haven: Yale University Press.

Mayer, Robert N. 1991. "Gone Yesterday, Here Today: Consumer Issues in the Agenda-Setting Process." *Journal of Social Issues* 47(1): 21-39.

Mazur, Allan. 2009. "American generation of environmental warnings: Avian influenza and global warming." Human Ecology Review 16: 17-26.

Mazur, Allan, and Linling Lee. 2003. "Sounding the global alarm: Environmental issues in the US national news." Social Studies of Science 23: 681-720.

McChesney, Robert. 1999. Rich Media, Poor Democracy: Communications Politics in Dubious Times. New York: Times Press.

McComas, Katherine, and James Shanahan. 1999. "Telling Stories about Global Climate Change: Measuring the Impact of Narratives on Issue Cycles." Communication Research 26: 30-57.

McCombs, M. 2004. *Setting the Agenda: The Mass Media and Public Opinion.* Malden, MA: Blackwell Publishing Inc.

McCombs, Maxwell, and Donald L. Shaw. 1972. "The Agenda-Setting Function of Mass Media." *Public Opinion Quarterly* 36 (2): 176-87.

McCombs, M., D.L. Shaw, and D. Weaver. 1997. Communication and Democracy: Exploring the Intellectual Frontiers in Agenda-Setting Theory. Mahwah: New Jersey: Lawrence Erlbaum Associates Inc.

McCombs, M. E., and J.H. Zhu. 1995. "Capacity, Diversity, and Volatility of the Public Agenda: Trends from 1954 to 1994." *Public Opinion Quarterly* 59: 495–525.

McCright, Aaron M., and Riley E. Dunlap. 2003. "Defeating Kyoto: The conservative movement's impact on US climate change policy." Social Problems 50: 348-373.

McQuail, D. 1994. Mass Communication Theory: An Introduction. 3 ed. Thousand Oaks, CA: Sage.

Mooney, Chris. 2004. "Blinded by science: How 'balanced' coverage lets the scientific fringe hijack reality." Columbia Journalism Review November/December.

Murray, David, Joel Schwartz, and S. Robert Lichter. 2010. It Ain't Necessarily So: How media make and unmake the scientific picture of reality. Lanham, MD: Rowman and Littlefield.

Nelson, Barbara. 1984. *Making an Issue of Child Abuse: Political Agenda-Setting for Social Problems.* Chicago: University of Chicago Press.

Nisbet, Matthew C., and Teresa Myers. 2007. "Twenty years of public opinion about global warming." Public Opinion Quarterly 71: 444-470.

Patterson, Thomas E. 1994. Out of Order. New York: Vintage.

Peters, B. Guy, and Brian W. Hogwood. 1985. *The Pathology of Public Policy.* New York: Oxford University Press.

Price, V., and D. Tewksbury. 1997. "News Values and Public Opinion: A Theoretical Account of Media Priming and Framing." In Progress in Communication Sciences: Advances in Persuasion, ed. G. A. Barett and F.J. Boster. Greenwich, CT: Ablex.

Pritchard, David. 1986. "Homicide and Bargained Justice: The Agenda-Setting Effect of Crime News on Prosecutors." *Public Opinion Quarterly* 50(2): 143-59.

Pritchard, David. 1992. "The News Media and Public Policy Agendas." In *Public Opinion, the Press and Public Policy*, ed. D. Kennamer. Westport, CT: Praeger.

Rosenau, Pauline V. 1993. "Anticipating a Post-modern Policy Current?" *Policy*

Currents 3: 1-4.

Schattschneider, E.E. 1960. *The Semi-Sovereign People.* New York: Rineheart and Wilson.

Scheufele, Dietram A., and David Tewksbury. 2007. "Framing, Agenda Setting, and Priming: The Evolution of Three Media Effects Models." Journal of Communication 57 (1): 9-20.

Sniderman, P.M., R.A. Brody, and P.E. Tetlock. 1991. Reasoning and Choice: Explorations in Political Psychology. Cambridge: Cambridge University Press.

Soroka, Stuart. 2002. *Agenda-Setting Dynamics in Canada.* Vancouver: University of British Columbia Press.

Soroka, Stuart, Stephen Farnsworth, Lori Young and Andrea Lawlor. 2009. "Environment and Energy Policy: Comparing Reports from US and Canadian Television News." Paper presented at the Annual Meeting of the American Political Science Association, Toronto ON.

Spector, Malcolm and John I. Kitsuse. 177. *Constructing Social Problems.* Menlo Park CA: Cummings.

Stevens, W.K. 1993. "Scientists confront renewed backlash on global warming." New York Times September 14.

Stone, Deborah. 1989. "Causal Stories and the Formation of Policy Agendas." *Political Science Quarterly* 104 (2): 281-300.

Trumbo, Craig. 1996. "Constructing Climate Change: Claims and Frames in US News Coverage of an Environmental Issue." Public Understanding of Science 5: 269-283.

Tuchman, G. 1978. *Making News: A Study in the Construction of Reality.* New York: Free Press.

Walgrave, Stefaan , Stuart Soroka, and Michiel Nuytemans. 2007. "The Mass Media's Political Agenda-Setting Power: A Longitudinal Analysis of Media, Parliament, and Government in Belgium (1993 to 2000)" *Comparative Political Studies* 41 (6): 814-36.

Walgrave, Stefaan, and Peter Van Aelst. 2006. "The Contingency of the Mass Media's Political Agenda Setting Power: Toward a Preliminary Theory." *Journal of Communication* 56 (1): 88 109.

Wilkins, Lee, and Philip Patterson. 1991. "Science as symbol: The media chills the greenhouse effect," in Risky Business: Communication Issues of Science, Risk and Public Policy, eds. Lee Wilkins and Philip Patterson. Westport, CT: Greenwood, 159-176.

Yagade, A. and Dozier D.M. 1990. "The Media Agenda-Setting Effect of Concrete versus Abstract Issues." *Journalism Quarterly* 67: 3-10.

Zhu, J.H. 1992. "Issue Competition and Attention Distraction: A Zero-Sum Theory of Agenda Setting." *Journalism Quarterly* 69: 825–836.

Zucker, H. G. 1978. "The Variable Nature of News Media Influence." In B.D. Ruben, ed., *Communication Yearbook,* vol 2. New Brunswick NJ: Transaction Books.