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Sharon Dunwoody

University of Wisconsin - Madison

Robert J. Griffin

Marquette University, robert.griffin@marquette.edu

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Recommended Citation

Dunwoody, Sharon and Griffin, Robert J., "Judgmental Heuristics and News Reporting" (2011). *College of Communication Faculty Research and Publications*. 270.

https://epublications.marquette.edu/comm_fac/270

7 Judgmental Heuristics and News Reporting

Sharon Dunwoody and Robert J. Griffin

A kind of cultural folklore has grown up around the practice of news reporting to explain how journalists do their job. It's a vibrant and enduring set of stories, spurred largely by the intersection of two factors. One is that, although news products are ubiquitous features of the cultural landscape, the processes that underlie these products are hidden from the users. Despite the fact that viewers can often see the newsroom looming behind well-groomed anchor people during TV newscasts, they are never permitted to see news actually being constructed. The second is that our culture (as well as others) regards the effects of media messages as both powerful and problematic. That is, we are much more likely to worry about the negative impacts of media messages than to celebrate the positive ones. Legends build rapidly around any process that combines mystery with the potential for evil.

These folkloric explanations are summoned to provide reasons for what people see when they attend to news. More specifically, they serve to rationalize people's perceptions that their media diet is awash in flawed accounts. Here are a few of the explanations that we hear from friends and family:

- Generating the largest audience possible is the primary goal of a journalist, and he or she will accomplish this by selecting stories that pander to the "lowest common denominator."
- Entertaining is more important than educating, so journalists will "sensationalize" information with few moral qualms.
- Social responsibility will always play second fiddle to the economic bottom line; journalists are out to "sell newspapers," not to provide a public service.

Like all folklore, these tales contain bits of truth. But they offer a very blunt instrument with which to trace the contours of news judgment and practice. Put another way, they don't explain much of the variance in what we see in our daily newspapers or on our television news programs.

In this chapter, we offer another set of tools that we think does a much better job of accounting for variance in news making. Our argument is that any single news story is the product of a host of small, individual-level decisions: selecting a story topic, choosing the story angle, deciding who will serve as a source, making sense of the streams of information that come the reporter's way. Further, we argue that the occupation of journalism employs some standardized strategies to make those decisions, judgmental shortcuts that closely resemble the heuristics used by most individuals to negotiate daily life. Permit us to emphasize this last point: These heuristics are not unique to the news business; rather, journalistic practice reinforces reporters and editors for using heuristics that are integral to problem solving for all of us, for better or worse. In the course of this chapter, we will discuss some of these heuristic devices and will offer a case study from the realm of environmental reporting to illustrate our points. Finally, we will speculate about the potential effects of such heuristic decision making on news and, ultimately, on the audiences for news products.

A Couple of Caveats

The reader should be aware that, although we will rarely use the term *behavioral decision theory* in this chapter, our focus on heuristic decision making places us squarely within that psychological domain. Where we may depart from some of our colleagues is that we do not, a priori, define heuristic decision making as necessarily deficient or irrational. Heuristic decisions are indeed superficial ones, as they rely on assessing only one or a handful of variables in a multivariate environment. But if an individual selects an important subset of variables on which to ground his or her decision, that may produce a respectable outcome most of the time. The heuristics promoted by journalism are often so grounded. And although journalists may utilize evidentiary strategies that occasionally make systematic analysts wince, their ways of making sense of the world resonate strongly with those of their audiences. One explanation of the power of the media, in fact, may be that mass media accounts amplify – rather than contradict – cultural sense-making.

This position is consonant with that of scholars of judgment and decision making who have followed on the heels of economist Herbert Simon (1982), who posits that individuals make judgments through a process of *satisficing*, that is, by selecting the first reasonable course of action instead of evaluating a larger set of options more systematically. Such a strategy is an adaptation, argues Simon, both to one's cognitive abilities and to the environment in which a given decision must be made. And it's an adaptation that suffices in most instances.

The psychologist Gerd Gigerenzer has built on Simon's work. He suggests that *one-reason decision making*, although indeed violating the tenets of classical rationality, is effective. In one recent study, Gigerenzer and Goldstein (1996) held a computer-simulation competition between one-reason decision making and more effortful inference procedures and found that the former consistently matched or outperformed the latter.

A final word of caution: Although this chapter will dwell on psychological processes, it will be important for the reader to resist concluding that one can account for 100% of the variance in news making at this level. Studies of journalistic work over the decades have found important determinants at the cultural (Coleman, 1995; Glasser & Ettema, 1989; Silverstone, 1985), occupational/professional (Dunwoody and Griffin, 1993; Fishman, 1980; McManus, 1991; Tuchman, 1978), and organizational (Breed, 1955; Dunwoody, 1979; Soloski, 1989) levels. In fact, our argument in this chapter is, in part, that the *occupation* of journalism works to privilege some judgmental shortcuts over others. Like all individuals, reporters are creatures of their social environment. Our job in this chapter is not to ignore the impact of that environment but rather to examine the influence of judgmental heuristics as they are brought into play within those sociocultural and organizational boundaries.

Journalistic Judgments

Journalistic work is characterized by speed, particularly in the world of daily news gathering. Products must emerge daily, even hourly; it is inconceivable to decide to skip, say, the Wednesday issue of a daily newspaper because reporters need more time to report complex stories. And new channels such as the World Wide Web are, if anything, ratcheting up the need for speed. An Internet news site may be updated on a minute-by-minute basis, raising legitimate questions about the social value of raw information.

In a world of rapidly recurring deadlines, journalists cannot afford to engage in systematic information processing. Instead, the occupation rewards those who can make quick decisions about "what's news" and decide rapidly how to cobble together a story. Extremely fast decisions are, perforce, heuristic ones. Thus, journalism is unapologetically a world of heuristic decision making.

To accomplish its work, journalism employs the kinds of judgmental shortcuts used in other walks of life; it has not constructed unique heuristics or even necessarily improved on existing ones. Part of the reason for the use of "mainstream" shortcuts is that the occupation has historically resisted the notion that one needs specialized training to become a journalist. Individuals are welcomed into the occupation from a variety of backgrounds, making it necessary for them to rely on a common subset of heuristics.

But perhaps more importantly, stories that employ the kinds of heuristic decision making likely to be used by members of the audience get a sympathetic reading from that audience. Readers may immediately see the relevance of vivid anecdotal information in a story and thus be more likely to learn from such information than from more systematic – but more pallid – evidence. Perversely, journalists may be most effective in influencing audiences when they employ the kinds of heuristic strategies that may be least effective in producing high-quality information.

Although there are many ways to categorize heuristic decision making, we will divide the heuristics used by journalists into two groups – those employed in topic selection and those used to make decisions about evidence in the course of reporting and writing a story. In the following sections, we provide examples from each category.

What's News?

Although news is a reconstruction – not a reflection – of reality, journalists rely heavily on environmental cues to signal when news is occurring. A journalist cannot create a topic from whole cloth; reporters who make up events or who interview nonexistent sources run afoul of their employers if discovered. (For the account of one promising young journalist who met his end by fabricating, see Bissinger, 1998.) Thus, journalists must monitor events and processes around them and select from those myriad possibilities a small subset of happenings to define as "news." Given the welter of possible news cues, reporters are quickly socialized to attend to a subset. Here are three of the more important cues:

Journalists Pay Attention When Things Go Wrong, Not When Things Go Right. The folkloric version of this heuristic is that journalists emphasize the negative, not the positive. And indeed, the typical daily newspaper or TV news report does seem to wallow in accounts of things going awry. A scientist whose fraudulent behavior is revealed will get much more press than one who plays by the rules. A convicted felon who, upon release from prison, commits another crime will get far more attention than will the former criminal who lives a respectable life after release.

Although individuals in our society routinely disparage this journalistic emphasis on the negative, it is a popular mainstream heuristic (Shoemaker, 1996). We all attend more closely to aberrant, usually negative happenings than to ordinary events in our environment. These negative occurrences are so salient that we routinely assign them a greater weight than we do positive ones. Slovic and colleagues have found that when people confront an array of evidence in the course of making a decision, a positive attribute does not count as much as a negative one (Slovic, 1992). In trying to decide how to react to a novel technology, for example, the presence of a small likelihood of coming to harm (negative) may outweigh numerous proposed benefits, leading an individual to reject the technology.

Another acknowledgment of the social importance of this heuristic is people's tendency to use the mass media as a surveillance device, as a way of keeping track of events in their environment (Shoemaker, 1996). It is apparently far more important to spot catastrophe looming than it is to be reminded of social regularity. Thus, the mass media typically characterize their societal role as that of serving as society's watchdog. That they honor this role more in the breach than in daily practice (see, e.g., Donohue, Tichenor, & Olien, 1995) does not detract from its importance as an occupational or cultural norm.

Events Are More Newsworthy Than Processes. The world of deadlines presents journalists with a major interpretive challenge. How does one give meaning to long-running natural and social processes, the warp and woof of daily life, when the goal is to produce independent dollops of information – stories – on a weekly, daily, or hourly basis? Sociologist Gaye Tuchman responds that journalism has established routines to help it anticipate, categorize, and package these processes. The result is a reconceptualization of the process as a series of discrete events. Says Tuchman, "The way in which newsmen classify events-as-news

decreases the variability of the raw material processed by news organizations and facilitates routinization" (1997, p. 174).

The event is a ubiquitous feature of the news, so much so that sources have learned to stage events – press conferences, meetings, ceremonies of all kinds – to increase their public visibility. Journalists grumble about such overt management attempts but turn them into stories anyway. For example, even though the *Los Angeles Times* science writing staff reacted skeptically when the University of Utah arranged a press conference in 1989 to herald the achievement of room-temperature fusion, the newspaper covered the event. Noted science editor Joel Greenberg:

It seemed like a textbook case of a story to avoid. The claim, particularly using such a technique, seemed fantastic. The research paper had yet to be published in a refereed journal. And no one at Princeton or anywhere else where fusion research had been pursued for many years had come close to such a result. Most science writers knew this was a sensational story that almost certainly would prove to be not true, at least not to the point of the university's claims.

Nevertheless, the results emanated from a respected university and from two scientists... who, as far as anyone could tell, were legitimate members of the research community. And finally, whether we covered it or not, it was obvious that this was a story destined to lead the television news and make the covers of *Time* and *Newsweek* (which it did). To ignore it would have been a mistake. (Greenberg, 1997, p. 100)

Reinterpreting a process as a cascade of events is a spectacularly successful heuristic device. It allows journalists to survey their terrain rapidly for event markers and to prioritize those markers by some criterion for importance. Events have easily discernible beginnings and endings, simplifying the construction of narratives. Events' ready availability in the environment encourages both journalists and society to interpret journalistic work as the process of mirroring – not reconstructing – reality. And, as with so many of the heuristics employed by journalists, this preference for events is shared by audiences, who also find it much easier to grapple with concrete happenings than with diffuse processes.

But the debits of this heuristic are substantial. The notion that events are features of the landscape that can readily be seen and selected forces journalists to ignore great swaths of process that cannot be easily packaged in event narratives. Journalists' failure to represent abstract concepts and linkages in their stories leads some critics to argue that journalistic training robs reporters of the ability to think conceptually. Reporters

"do not conceptualize their own experience or place particular, concrete facts into broader theoretical frameworks," argues one such critic. "Journalists are nontheoretic knowers who depend upon instinctive, concrete, first-hand 'acquaintance with' events, not formal, systematic 'knowledge about' events" (Phillips 1977, p. 70).

Equally problematic, reliance on events discernible in the environment promotes a kind of journalistic reactivity that allows sources much greater control over what becomes news than they otherwise might have. McManus (1994) and others find that only a fraction of daily news stories can be traced back to journalistic efforts to conceptualize and write independently about issues and problems, a process called *enterprise reporting* in the business. Rather, the bulk of a day's news depends heavily on the flow of information *into* the newsroom, much of that information packaged by sources specifically to gain the attention of reporters and editors.

News Values. Journalists are routinely confronted by too much news. Put another way, of the vast array of happenings in the environment available to a journalist on a given day, most must be set aside. And that decision must be made in a matter of seconds. There is simply no time for thoughtful deliberation, for extended discussions with journalistic colleagues about how to approach an issue or about whether a particular topic warrants coverage. Editors and subeditors will engage in regular story conferences, but discussions there focus less on what to cover and more on such production issues as where in a newspaper or newscast to situate a story.

The speed with which news selections are made requires journalists to employ a set of heuristic judgments to categorize the world around them. Called *news values*, these judgments are usually unspoken, operating at an almost unconscious level. But they are reinforced at all levels, from journalism classrooms in universities to the newsroom itself. What are these criteria that allow a thin trickle of information through the news "gate" while keeping much of the rest of the world at bay? Here are a few of those values:

- **Size matters.** Large-scale happenings are much more likely to be noticed and covered than are small-scale happenings. In a recent study of media coverage of environmental hazards, for example, Freudenburg and colleagues (1996) found that the best predictor of media attention was magnitude: the number of

casualties or the level of damage caused by the hazard. Below a certain size threshold, events were essentially invisible.

- The closer, the better. Given two similar events, the more geographically proximate one will get far more media attention than the more distant event. And more proximate sources will be preferred to more distant ones. This focus on proximity helps illuminate a number of otherwise puzzling patterns – for example, the tendency of a reporter attending an international meeting or a national political convention to cover the speeches and comments of the hometown delegates, often to the exclusion of more visible, more impactful sources.
- Once a topic has become news, it tends to remain newsworthy. That is, once a story has crossed the news threshold, subsequent, related events are much more likely to be defined as newsworthy regardless of their relative importance at the time. To return to the cold fusion story by way of example, once the University of Utah press conference had put the topic on the national – nay, international – news agenda, reporters returned to it time and time again, despite the fact that cold fusion was never demonstrated to occur in a laboratory.

News criteria have been the subject of much study over the years, with results generally supporting the ubiquity of these heuristic devices across time, across countries, and across types of media organizations. Frequency of production is a major predictor of news criteria use: The more frequently you publish, the more likely you are to utilize these judgmental shortcuts. One of the more seminal studies, by Galtung and Ruge (1965), remains an excellent conceptual guide to these criteria.

It bears repeating that the selection criteria employed by journalists to decide what's news closely resemble the heuristic devices that people use every day to make sense of their world. Thus, one could argue that although news is indeed a product of relatively superficial judgments, those judgments bear a close resemblance to decisions that most folks make about what deserves their time and attention. In that sense, then, journalistic decision making may mirror the priorities of the culture within which it is embedded. We all love to hate our local newspaper or our local TV news team. But there's a good chance that, given the Cinderella opportunity to trade places with a reporter for a day, we'd make our news selections in ways quite similar to those of our ridiculed journalistic colleagues.

Sifting and Winnowing the Evidence

Deciding what's news is only a start, however. Topic in hand, the journalist must turn that topic into an actual story; she or he must decide what that story is about. That decision involves not only selecting the narrative focus of a story – its angle – but also selecting sources, gathering information from them, and then deciding how to represent that information in the story itself. Such decisions can be extremely complex. But once again, the speed of the journalistic process requires that reporters opt for an array of judgmental shortcuts. We have selected a few judgmental shortcuts from the panoply to illustrate our point.

Objectivity. One of the frustrations of journalism is that, although it is given the responsibility of "covering" the world around it and helping citizens to make reasoned choices about that world, it can rarely determine what's true. Both the speed of production and the occupation's tendency to eschew specialized training make it extremely difficult for a reporter to have either the time or the skill to evaluate competing truth claims. Thus, there is some chance that what becomes news may simply not be true.

Journalists have adopted a couple of heuristics to handle this validity problem and the social criticism that accompanies it. Objectivity is one. The practice of objectivity rewards a journalist not for figuring out what's true but, in the absence of such analysis, for accurately reflecting the voices of others. If you can't tell if someone is telling the truth, in other words, at least you can make sure that you are accurately transmitting the person's message.

The cold fusion story is a good example of this heuristic in action. Many science writers doubted the validity of the two scientists' claim, in 1989, that they had achieved room-temperature fusion. But these journalists were in no position to render a definitive judgment about the truth of that claim. Thus, they felt they had no choice but to cover the claim and to concentrate on reproducing it as accurately as possible. Achieving objectivity in the cold fusion debate, in other words, was good journalism.

This heuristic offers a number of advantages for reporters. Even specialists in a field understand the difficulty of making and defending validity judgments. Science, for example, is replete with challenges to validity; there is rarely a consensus on what's true. In such a climate, it would be disastrous for less specialized individuals to try to ascertain

the truth, as their judgments would carry little credibility. An emphasis on accuracy is thus much safer than an emphasis on validity.

But this privileging of accuracy can have negative consequences. Although a manageable goal, objectivity has become a journalistic ritual (Tuchman, 1972) that actually encourages journalists to eschew responsibility for making validity judgments. Journalistic training has never included the kinds of systematic analytical tools that members of other occupations often utilize for validity purposes. And those reporters who actually attempt to make a distinction between more or less likely truth claims often find themselves in a kind of no-man's land, bereft of support from either their sources or their journalistic peers (see, e.g., Crewdson, 1993; Fragin, 1998).

Balancing Contrasting Accounts. A second heuristic that allows journalists to eschew validity judgments is the practice of balancing contrasting points of view. Since many arenas contain competing truth claims, this heuristic dictates that, in the absence of knowing what's true, a journalist should offer the audience the whole array of possible claims. Thus, this judgmental shortcut asks journalists to be responsible for knowing about the extent of variance in truth claims, not about the validity of those claims.

Typically, this heuristic gets operationalized in a story by providing two competing claims, each meant to demarcate a contrasting domain of beliefs. So, for example, if a journalist is writing a story about one group of scientists' claim to have found fossilized life in a Martian meteorite, the reporter is responsible for seeking a point of view at the other end of the belief continuum. The story is not complete, in other words, until it contains comments by a scientist who is skeptical of the claim.

Again, this heuristic encourages the journalist to accomplish a manageable evidentiary task: identifying variance in rather than validity of points of view. But the ritualistic practice of balance is often reduced to selecting points of view situated at the ends of a belief continuum and then giving those (sometimes rather extreme) beliefs equal space.

Interestingly, journalists continue to endorse the concept of balance even when they have some evidence suggesting that a belief is *not* true. For example, Dearing (1995) examined coverage of three controversial science issues that featured less than believable assertions offered by individuals considered to be scientific mavericks. One was the 1989 cold fusion announcement. The second was the claim by a self-trained climatologist, in 1990, that there was a 50-50 chance that a severe earthquake

(the so-called New Madrid quake, which never occurred) would shake the lower Midwest by a specific date. And the third was a well-known biologist's long-running assertion that the human immunodeficiency virus (HIV) virus cannot be the cause of acquired immune deficiency syndrome (AIDS).

Dearing found that, in all three cases, despite the fact that journalists believed the extreme claims were wrong, they not only included these claims in their stories but also, in the interest of balance, provided the information in ways that lent legitimacy to them. Thus, he argued, balancing truth claims sent the message to readers that these scientific mavericks were as likely to be right as the mainstream scientific sources on the other side of the issue.

Preference for the Vivid Anecdotal Account. Psychologists argue that most people prefer to make inferences on the basis of vivid anecdotal information rather than utilizing systematic or consensus data (Nisbett & Ross, 1980). That is, we opt for the concrete over the abstract.

This heuristic tendency is exacerbated in journalism. Journalistic training expressly privileges self-reported data by encouraging reporters to gather information in face-to-face interview settings. Systematic data are relegated to the position of backup information, available to flesh out a story but not intended as primary information on which a story can be hung. And when systematic data are indeed the focal point of a story – as is often the case when journalists are writing about newly published scientific research – reporters will often seek out anecdotal information to make the story more “readable.”

For example, when a scientific study some years ago suggested a relationship between drinking coffee and the risk of pancreatic cancer, the research made front-page headlines around the country. But many journalists felt the need for a more vivid, concrete dimension to the tale. Some asked the researchers about any changes they might have made in their own coffee-drinking habit as a result of the study. Others went to locations such as restaurants to confer with coffee drinkers about their reactions to the study (Ryan, Dunwoody, & Tankard, 1991).

This focus on the anecdotal has a distinct storytelling advantage. Audiences are more likely to get caught up in vivid personal stories than in accounts that rely only on systematic data gathering. But there is a risk that both journalist and audience will mistake the personal tale as a marker for a larger pattern. We turn to that possibility in the following case study about an event in Wisconsin that offered journalists

both anecdotal and systematic data. The resulting media coverage of the state's attempt to introduce reformulated gas into daily use serves as a useful illustration of the kinds of heuristic devices popular among journalists.

The Reformulated Gas Controversy in Wisconsin

As a consequence of the Clean Air Act Amendments of 1990, gasoline stations in certain urban corridors of the United States have been required by the U.S. Environmental Protection Agency (EPA) to sell a reformulated gas mixture designed to cut down significantly on the levels of automobile-related smog. The additives in reformulated gas are ethyl- or ether-based compounds, chief among them methyl tertiary-butyl ether (MTBE).

The Milwaukee area, a large urban region in Wisconsin on the shores of Lake Michigan, was one of the metropolitan areas required to use reformulated gas, and Milwaukee gas stations began selling the fuel in late fall 1994. Local media reports in early 1995 fueled a growing awareness of the gas, and people began contacting state and federal offices to complain that pumping reformulated gas was making them sick. Calls eventually mounted into the thousands. Wisconsin finally directed its state epidemiologists to conduct an investigation of the possible health impacts of reformulated gas, a study that was completed in June 1995 (Wisconsin Department of Health and Social Services, 1995).

We became interested in media coverage of this controversy because the issue confronted journalists with a challenging array of evidence. On the one hand, the early stages of the issue were dominated by vivid anecdotal testimonials. Individuals who felt that they had become ill from exposure to the gas contacted governmental officials and media organizations to complain and demand redress. Even the state's governor got into the act, eventually traveling to Washington, DC, to urge the U.S. EPA to renege on its requirement that Milwaukee area motorists use reformulated gas, a plea that was ultimately unsuccessful.

But although all this anecdotal information conveyed the perception that reformulated gas was causing problems such as nausea and flulike symptoms, the state's investigation of those claims offered systematic data that painted a very different picture. The state's study was conducted in four parts:

1. Researchers monitored the air near the pumps dispensing reformulated gas to see if substances to which individuals were

- exposed were any more toxic than normal (any gasoline is made of a soup of chemicals, some of which are linked to cancer).
2. They contacted the health departments of other states using reformulated gas to learn if these other locations were also experiencing health disruptions.
 3. They compared the composition of the reformulated gas being pumped in Milwaukee with that of reformulated gas elsewhere.
 4. Finally, researchers conducted a random digit dial phone survey to compare the rate of occurrence and correlates of health complaints in three areas: metropolitan Milwaukee; metropolitan Chicago, where reformulated gas also was in use; and other regions of Wisconsin where reformulated gas was not available.

State epidemiologists found that a much greater proportion of Milwaukee gasoline users reported becoming ill than did those surveyed in other areas, including Chicago, where the same type of reformulated gas was being used. But neither the availability of reformulated gas nor the chemical constituents of the gas in Milwaukee predicted the illness reports. Rather, the state found that the best predictors of the likelihood of feeling ill were (1) having had a cold or the flu and (2) an awareness of the possibility that reformulated gas might be a health threat. To put that latter predictor in a more colorful context, media coverage of the reformulated gas controversy was making people sick.

Once the systematic data became available in September 1995, we asked: How would Milwaukee media organizations cope with the array of evidence now available to them? The reformulated gas issue was certainly news, as it had led to local TV newscasts several times earlier in the winter, when anecdotal evidence poured in about the possible health effects. So the new epidemiological study would be readily defined as newsworthy. But would media organizations continue to privilege the earlier anecdotal accounts in the face of strong evidence that Milwaukee residents were not becoming ill from exposure to reformulated gas? And, given the existence of carefully gathered, systematic data, would journalists still feel the need to balance the findings of state epidemiologists with information skeptical of the new information?

To answer these questions, we videotaped the reformulated gas news stories aired by the three Milwaukee television stations for several days after release of the state epidemiological report. We also attended to

stories written by journalists working for *The Milwaukee Journal Sentinel*, the city's daily newspaper. (A more detailed analysis of these findings is available in Trumbo, Dunwoody, & Griffin, 1998.)

Preference for the Vivid

Although all news organizations began their stories with the announcement that the state's study had found no health effects that could be linked to the use of reformulated gas, reporters typically headed to nearby gas stations to ask individuals for their reactions to that news. Ultimately, those anecdotal interviews took up equal or more time in the stories than did reporters' efforts to explain the study's findings. Thus, it was clear that journalists did not feel that the systematic evidence could stand on its own; they needed to either bolster or contradict it with anecdotal accounts.

But another possible indicator of the power of the anecdotal account lay in the obvious skepticism that journalists brought to the state's findings. Recall that journalists had been bombarded for months by individual testimonials of illness, a pattern reinforced by actions of state officials to convince the U.S. EPA to ban reformulated gas in the state. Confronted with a systematic study that debunked the cause-and-effect assertions, many journalists reacted cautiously, even skeptically.

For example, when an anchor at one of the Milwaukee television stations introduced a story about the survey findings by saying, "The state says the facts are in and the new gas we are required to use is not a health problem," her coanchor responded: "*Not* a health problem? Thousands of people have complained about the reformulated gasoline, saying it makes them sick" (from transcript in Trumbo et. al., 1998, p. 257).

Another anchor, after sitting through an account of the epidemiological findings, ended the news segment by remarking: "Makes you wonder if 15,000 [sic] people could all be wrong" (from transcript in Trumbo et al., 1998, p. 262).

Yet another station embedded the skepticism in its lead-in for the story. Said the anchors: "While it runs your car, will it ruin your health? A new report on reformulated gas says no. [The two anchors identify themselves.] But some people are still hesitant to reformulate an opinion on that gas" (from transcript in Trumbo et al., 1998, p. 258).

One possibility is that reporters had found the earlier anecdotal evidence persuasive, making it difficult for them to interpret the new, systematic data as offering a higher-quality interpretation of reality. Stocking and Gross (1989), in a monograph that examines cognitive bias in news making, reflect on how reporters – like all folks – tend to adopt a set of beliefs and then define subsequent information that supports their original theory as more valid than information that doesn't. In this case, the state survey stood in stark contrast to the anecdotal accounts, making it easy prey to those reporters who had become convinced by the earlier accounts of health problems.

The Persistence of Balance

If reporters indeed were reacting warily to the new study results, that wariness would have reinforced occupational pressure to balance the study findings with points of view that contradicted it. And that's what we found in the television reports. The epidemiological study was never allowed to stand unchallenged. Rather, journalists worked to find points of view from the other side of the continuum. Some journalists went seeking comments from the state's governor, who had earlier gone on the record as opposing the use of reformulated gas in the state. (The governor, incidentally, reacted with "no comment.") Others gave space to a congressperson who, inexplicably, railed against the validity of using survey research to accomplish the ends sought by the study.

In the most extreme instance of balancing, a reporter from one of the stations learned that a scientist asked to evaluate the state's study as part of a consensus panel had refused to endorse the study's conclusion that it had found no link between reformulated gas and reported health problems. The reporter tracked down the researcher, put him on the air, and literally badgered him into dissenting:

Reporter voice over: Just [an] hour and a half ago, in a satellite interview from Raleigh, (name) told me he never signed off on the study because, he said, it's riddled with problems. (Cut to side-by-side shots of the reporter and the scientist.)

Scientist: You simply can't make that statement . . .

Reporter: The study is flawed, is what you're saying, the study *is* flawed.

Scientist: Well, the study . . . yea, the study's got a lot of problems, too . . . (cut off mid-sentence). (From transcript in Trumbo et al., 1998, p. 260)

And Now for Something Completely Different

A very different account of the state's findings appeared in *The Milwaukee Journal Sentinel*. Written by the environmental reporter, Don Behm (1995), the story clearly privileged the epidemiological work over the earlier anecdotal accounts. In fact, it included no anecdotal material at all, concentrating instead on explaining the study's goals and methods and reflecting the views of a variety of individuals regarding the meaning of the findings.

Efforts to balance contrasting viewpoints were also missing from this story. A reader would have to have made it to the very bottom of the story (which by this time has "jumped" to an inside page) to learn that some individuals were taking issue with the state's study. The story offered a one-sentence critique by a Wisconsin congressperson who referred to the study as "bogus." In this account, then, heuristic strategies that dominated other accounts were abandoned.

What lies behind the rather dramatic difference between the newspaper and television accounts? One possibility is differential production stresses. In addition to its insatiable need for visuals, television can be more physically demanding than a daily newspaper. For example, television reporters may have to package the same issue two or three times in a given day (the noon, early evening, and late evening news shows), so time may be even more scarce than at the typical newspaper. When time is scarce, heuristic devices blossom.

A second possible factor accounting for the variance is reporter expertise. Years of reporting on complex environmental issues have enabled *Milwaukee Journal Sentinel* reporter Don Behm to become more adept at systematic evaluation of evidence. Specialty reporters, who can spend entire careers covering a particular information domain, are among the few reporters who are encouraged to develop in-depth knowledge. But specialty beats are rare in television – certainly at the local level, where reporters are few and equipment costs are high. Thus, most TV reporters are generalists, unable to develop expertise and rewarded, instead, for speed and reliability.

The reformulated gas story is a case study in how journalists may mistake anecdotal evidence as markers of larger patterns. This is a familiar cycle for all of us, from the scientist who has an unpleasant experience with a journalist and concludes that all journalists are bad to the employer who insists that she can determine the potential of an applicant on the basis of an interview alone. In the course of coverage of the

reformulated gas controversy, it is possible that Milwaukee television journalists readily defined anecdotal evidence as reflections of a larger pattern, that they interpreted the many public complaints about the health repercussions of pumping reformulated gas as sufficient evidence of a cause-and-effect relationship. Their skeptical reactions to the subsequent state epidemiological study certainly bolster this interpretation.

Discussion

In this chapter we have put forward an argument on behalf of journalism as an occupation that has institutionalized heuristic decision making. Without the ability to make extremely quick decisions, daily journalism as we know it could not exist. Although some components of the journalism world – magazines, television and radio documentaries, nonnews sections of newspapers – allow reporters to be more reflective, the bulk of what counts as journalism demands split-second decisions.

To accommodate this fact of life, journalism has commandeered a host of garden-variety judgmental shortcuts and made them its own. Although some have been given occupational labels – the use of news values, for instance, or the concept of objectivity – they function within the occupation in ways quite similar to their use in daily life.

That resonance with daily practice may be one of the reasons that journalism has evolved to play such an important role in human culture. We may rely on journalistic accounts not because they are of high quality in an evidentiary sense but because journalists *think like us*. News choices validate our own priorities. Journalists' search for cause and effect parallels our own. It is culturally reassuring to see such consonance out and about in the land.

Policymakers, too, have picked up on that social consonance. They are among the most intense users of media information not only to keep abreast of the behaviors of other policymakers (Price, 1992) but also, presumably, to take advantage of the tendency of mass media channels to mirror common cultural judgmental processes. To that extent, then, the kinds of heuristic judgments reflected in media accounts provide valuable clues for policymakers about popular ways of thinking.

The Problems with "Thinking Like Us"

But the tendency of journalists to rely on shortcut decision-making strategies is also problematic, for at least a couple of reasons. First,

consumers and policymakers tend to believe that news stories indeed reflect the more important social occurrences in our environment. Although we may have smiled when Walter Cronkite signed off his newscast each evening with "Well, that's the way it is" back in the 1960s and 1970s, *we believed him!* One of the most important functions of journalistic work seems to be its role in legitimating some forms of reality over others.

By way of illustration, a group of sociologists (Phillips, Kanter, Bednarczyk, & Tastad, 1991) tested the legitimizing ability of media coverage on a very difficult audience indeed: scientists. The scholars isolated two groups of research reports from the prestigious *New England Journal of Medicine* that differed on one important variable: One group of studies had generated stories in the *New York Times* and the other group had not. The sociologists controlled for a host of other confounding variables and then looked at how frequently the studies got cited in the *scientific literature* in the ensuing years.

To their astonishment, those studies that got *New York Times* attention received 73% more citations in the peer-reviewed literature than did the equally good but less publicly visible studies. The investigators concluded that the *New York Times* was playing a role in establishing the importance and legitimacy of particular research efforts even for other specialists within these scientists' own fields.

Admittedly, few media organizations have the legitimizing clout of the *New York Times*. But even *Times* reporters must rely on judgmental shortcuts to select those topics to which they will attend, to make judgments about sources, and the like. Thus, relatively superficial heuristics may play a disproportionate role in constructing reality for media consumers.

Policymakers seem to fall prey to this legitimizing function of the media just as easily as do other inhabitants of American culture. Although the ability of the mass media to help establish public notions of what's important has been amply demonstrated across time and topic, evidence grows that media content may have even more powerful effects on policymakers' agendas. For example, in one study of the agenda-setting influence of mass media coverage of global warming during the 1980s and early 1990s, Trumbo (1995) found that media accounts had little influence on lay audiences' judgments of the importance of this environmental topic but profoundly affected policymakers' judgments. Even more interesting, the effect formed a kind of feedback loop:

Actions by policymakers produced media stories, which in turn served as catalysts for further policy action.

A second possible debit of the ubiquity of shortcut decision making in daily journalism is that journalistic practices may encourage heuristic thinking among members of the audience. It is likely that we all utilize judgmental shortcuts for most decision-making needs. But we are routinely enjoined to resort to systematic thinking whenever possible, certainly when important decisions loom. Confronted with a complicated medical situation, we are urged to seek a second opinion. Faced with a long but somewhat unpredictable earnings life, we are advised to learn about different kinds of savings options and to make multivariate plans for a secure economic future. Information processing that seeks and evaluates alternatives is difficult, however. And most of us are, quite simply, bad at it.

Although journalism exists ostensibly to help individuals make reasoned decisions about the world around them, the heuristic base that buttresses the business offers up to information consumers the same kinds of judgmental shortcuts to which those consumers themselves may fall prey. Thus, a search for information that includes a heavy reliance on media accounts may reinforce individuals in their own hurried heuristic habits. The confluence of a complex medical situation *and* a newspaper story about it may encourage a reader to contact the medical center featured in the story, no questions asked. Similarly, an individual at sea regarding her financial future may latch onto a financial adviser whose ad appears in a local magazine. From such heuristic judgments is the edifice of advertising built.

When policymakers encounter topics in the news that are near and dear to their hearts, we would expect those individuals to be more resistant to the potential media reinforcement of heuristic thinking strategies. Although policymakers are indeed heavy users of mass media, they come to these channels with well-developed belief systems about specific topics and issues. Such belief systems make individuals more likely to be information *constructors* than information *ingesters*. That is, such persons are less likely to be influenced by message content than they are to "rewrite" that content to fit their prevailing mental maps.

On the other hand, when policymakers encounter media information for which they don't have well-developed beliefs, they may be subject to the same reinforcement effect that may bedevil the public itself. That is, they may naively conclude that if it's in the newspaper, it must be true.

Effecting Change

Although daily journalism is unavoidably an occupation dominated by heuristic judgments, occupants of other journalistic niches may have the time and resources to think more systematically and make more careful decisions about who and what. Magazine articles, broadcast documentaries, and newspaper series are often the product of weeks or months of thought, reflection, information gathering, and writing. Journalists who are equipped to view the world more systematically should be able to flourish in these modes.

But are journalists so equipped? Whereas the typical journalist of 19th- and early-20th-century America entered the occupation via an apprenticeship system, today's journalists increasingly get their basic training in university journalism programs (Weaver and Wilhoit, 1996). Those programs urge on their students a bifurcated education: On the one hand, the programs work to instill basic professional skills and values; on the other, they push their young charges to attain a traditional liberal arts education. A typical ratio of coursework would be one skills course to every two or three courses elsewhere in the university.

Unfortunately, neither of those educational goals gives young journalists systematic information processing skills in today's university. Most schools fail either to define such skills as part of an individual's basic competencies or, even if they do identify the ability to process information systematically as an important tool, to offer courses that give students basic training in it. Journalism courses are no different.

This means that journalists will continue to make relatively superficial judgments about the world around them. Most of those judgments will be reasonably good ones, and we information consumers will be well served, all told. But the business of journalism is simply not equipped to turn a sustained, systematic eye to an issue in ways that illuminate that issue's basic assumptions. As one historian put it many years ago, journalism is "history on the run." A dead run does not offer a good venue for systematic thinking.

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