THINK ABOUT IT THIS WAY:
ATTRIBUTE AGENDA-SETTING FUNCTION
OF THE PRESS AND THE PUBLIC'S
EVALUATION OF A LOCAL ISSUE

By Sei-Hill Kim, Dietram A. Scheufele, and James Shanahan

This study examined the attribute agenda-setting function of the media, which refers to significant correspondence between prominent issue attributes in the media and the agenda of attributes among audiences. An opinion survey on a local issue and a content analysis of a local newspaper revealed that, by covering certain issue aspects more prominently, the media increase the salience of these aspects among audience members. We also found an important outcome of attribute agenda setting, attribute priming effects. Findings indicated that issue attributes salient in the media were functioning as significant dimensions of issue evaluation among audience members. This study concluded that the media, by emphasizing certain attributes of an issue, tell us "how to think about" this issue as well as "what to think about."

Introduction

Mass media play a key role in informing the citizenry about local issues. This informational function is important in a number of respects, most importantly the strong link between levels of current-events knowledge and participation in various political activities.

In addition to informing the public, however, media coverage of politics has consistently been shown to have a wide range of more subtle influences on what or how citizens think about political issues. More specifically, three related models of cognitive political effects of mass media can be differentiated.

McCombs and Shaw argued that mass media have an agenda-setting function. That is, the media emphasize certain issues in their coverage of politics by devoting a greater proportion of the news hole to them or by placing them more prominently in the newspaper or newscast. This emphasis on issues in the media, in turn, influences the salience of these issues among the audience.

Iyengar and Kinder proposed that the perceived salience of certain issues directly influences the public's evaluation of political actors as a direct outcome of agenda setting. When making decisions about
political actors or public figures, they argued, audience members rely on those issues as a basis for evaluation which are most salient to them at the time they make the decisions. This process is commonly referred to as priming.

Finally, an increasing body of research is devoted to the third type of cognitive effects: framing. In addition to making issues more salient, the media also seek to reduce the complexity of issues for their audience by presenting news in easy-to-understand interpretive packages or frames. In addition to reducing complexity, however, these frames also serve as interpretive shortcuts for audience members, leading them to make attributions of responsibility or other judgments, based on different frames or interpretations offered by mass media for the same factual content.

Recently, a number of researchers have suggested that agenda setting and framing describe similar phenomena. More specifically, Weaver, McCombs, and Shaw see priming and framing as natural "extensions" of agenda setting. As outlined earlier, priming is the impact that agenda setting can have on the way individuals evaluate public officials by influencing the thematic areas or issues that individuals use to form their evaluations. Similarly, framing has been considered an extension of agenda setting as "framing is the selection of a restricted number of thematically related attributes for inclusion on the media agenda when a particular object is discussed." As a result, researchers suggest that framing, as a term, should be replaced by attribute agenda setting or second-level agenda setting.

We disagree. Framing is a fuzzy term, and multiple theoretical and operational definitions of framing exist in the literature. Some of these definitions appear to be similar to attribute agenda setting, and others are quite different. In this regard, Scheufele has recently argued that the attempts to combine agenda setting, priming, and framing into a single theoretical framework are bound to further muddle the distinctions between already ill-defined concepts. We therefore believe that it is necessary to further refine the concepts of agenda setting, attribute agenda setting, and priming, in order to meaningfully distinguish them from the notion of framing.

This paper is divided into two parts. In the first part we explore further the notions of agenda setting and attribute agenda setting. How is the importance attributed to local issues in mass media content related to the salience of these issues among audience members? And is it possible for mass media to increase the salience of specific aspects (attributes) of an issue by devoting more extensive or prominent coverage to these aspects? In addition, previous research has questioned to which degree measures of "perceived importance" of issues and operationalizations of "mental accessibility" are interchangeable indicators of issue salience among audience members. We therefore examine an alternative method of assessing issue salience in a survey situation, through non-response error.

The second part of our paper focuses on priming and the role that salience of issue attributes plays in political decision making. Our assumption here is that attribute agenda setting produces priming
effects that are consistent with previous salience-based theorizing and research.  

**Accessibility vs. Applicability.** Before outlining our specific approach, it is important to clarify a few conceptual distinctions, most importantly the one between applicability-based models, such as framing, and accessibility-based models, such as agenda setting and priming. Framing is based on a set of premises that is distinctively different from agenda setting and priming. According to theorists such as Goffman, individuals must actively classify and interpret their life experiences to make sense of the world around them. These classifications and interpretations are essentially ever-present and ongoing; we cannot avoid them. As an individual reacts to particular media content, such a reaction must at least partially be conditioned by and depend on pre-existing and more long-standing schemes of interpretation. Price and Tewksbury applied this notion of interpretive schema more directly to media framing. The way mass media describe or frame an issue, they argue, offers important interpretive cues to the audience. Only if these cues correspond with or activate pre-existing cognitive schema will there be a framing effect noticeable in terms of attitudes or subsequent judgments.

By contrast, both agenda setting and priming rely on a memory-based model of information processing which assumes that—at any given time—some pieces of information are more accessible in a person’s mind than others. In other words, decision making is to a large degree a function of how easily accessible certain relevant considerations are in a person’s mind when he or she makes the decision. Accessibility is essentially a function of “how much” or “how recently” a person has been exposed to certain issues. Mass media thus can influence the salience or accessibility of certain issues as perceived by the audience, i.e., the ease with which these issues can be retrieved from memory, through agenda setting. In this way, agenda setting is essentially an argument limited to the frequency with which issues are portrayed. As hypothesized in the priming model, perceived issue salience becomes the independent variable and influences the role that these issues or considerations play when an individual makes a judgment about a political actor or issue. But still, the root of the argument is quantitative, suggesting that the greater frequency of exposure to the issues makes them more likely to be used by the audience. Mass media, Iyengar and Kinder argue, affect “the standards by which governments, policies and candidates for public office are judged.” Political issues that are most salient or accessible in a person’s memory will most strongly influence perceptions of political actors and figures.

While highly relevant from a theory-building perspective, the distinction between applicability and accessibility models matters mostly with respect to their assumed outcomes. In other words, both models are black-box models, i.e., models that predict outcomes based on virtually untestable assumptions about cognitive processes underlying these outcomes. Attempts to differentiate the two models therefore have to
focus on their outcomes. Framing, on the one hand, assumes that media coverage has an effect on audiences not through the issues or aspects of an issue that are being covered. Rather, framing assumes that it is "terminological or semantic differences" in how an issue is described rather than the salience of an issue itself that evoke audience responses. In other words, different descriptions of the "same" issue will be interpreted differently by different audience members. Agenda setting and priming, on the other hand, are based on the assumption that only the most salient issues in a person's mind will influence his or her decision making. That is, "different issues or sub-dimensions of issues"—if made salient by media coverage—will influence audience views.

**Assessing Importance vs. Salience.** Before we explicate further the notion of attribute agenda setting, it is important to sort out some of the inconsistencies in previous research with respect to how salience was assessed. Most agenda-setting research has relied on measures of perceived importance of an issue as operationalizations of issue salience. More recently, however, Nelson, Clawson, and Oxley suggested that there is a key difference between perceived importance of an issue and its actual salience, i.e., the ease with which it can be retrieved from memory, for example, during a process like priming. This, of course, raises important issues for agenda-setting research. What measures are available to researchers? And which measures are the most appropriate ones for agenda-setting and priming research?

Using the measures of perceived importance has a number of potential drawbacks. First, it implies that respondents can make a conscious assessment of the issues that are most important to them. The memory-based model, however, is based on the assumption that retrieval of information from short-term memory is largely unconscious. Second, and closely related, an assessment of issue importance in surveys is sometimes based on closed-ended questions that provide respondents with a list of issues from which to choose. Unfortunately, this tends to artificially inflate the number of issues that respondents rate as salient. The third argument against the measures of perceived importance goes back to Nelson, Clawson, and Oxley's work. They tested discriminant validity between issue importance and issue salience and found distinctive differences between the two constructs.

Attempts have been made to estimate attitude accessibility more directly. Bassili suggests an operationalization of attitude accessibility as a continuous variable by measuring the amount of time that it takes a respondent to answer a given question. The underlying rationale is that the longer it takes a respondent to answer a given question, the less accessible the evoked cognition or attitude was in his or her memory: "Accessibility is conceived in terms of associational strength in memory and measured in the metric of response time." Unfortunately, the measures of response latency are plagued by random measurement error and therefore require a relatively elaborate technical setup, including specially equipped telephone-interviewing facilities. In this study we therefore employ a new method of salience assessment in survey settings. It relies on an assessment of a person's nonresponse to a number
of questions about different aspects of an issue and can easily be implemented in simple telephone survey designs.

**Attribute Agenda-Setting.** Just as the public agenda consists of a set of public issues, an issue consists of a set of attributes that can be employed to evaluate or think about the issue. Whereas agenda setting deals with the salience of issues, attribute agenda setting, an extended version of agenda setting, is concerned with the salience of issue attributes. The original agenda-setting hypothesis deals with the transmission of issue salience from the media to the public. By emphasizing or frequently mentioning particular issues, the media increase the salience of these issues among the public. In a similar way, attribute agenda setting hypothesizes that certain issue attributes emphasized in the media become salient in the public mind.

Studies have identified a high degree of correspondence between prominent issue attributes in the media and the agenda of attributes among audience members. Analyzing media contents and survey data on 1995 Spanish regional and municipal elections, McCombs and his colleagues found that candidate attributes frequently mentioned in the media were also salient in voters' descriptions of candidate images. In a study of the 1994 Taipei mayoral election, King content-analyzed three major newspapers and examined, using a telephone survey, how voters described the images of three mayoral candidates and the qualifications of an ideal mayor. It was found that the attributes of candidate image emphasized in the press were significantly correlated with the agenda of image attributes in voters' minds. Even though it was not originally conceptualized as attribute agenda setting, Weaver and his colleagues identified the transfer of attribute salience from the media to the public. Their panel study of the 1976 presidential election revealed that there was considerable correspondence between the candidate attributes salient in the *Chicago Tribune* and the agenda of attributes in Illinois voters' descriptions of Jimmy Carter and Gerald Ford.

**Attribute Priming.** Previous research has consistently linked priming effects to the salience of various political issues. And the question of which issues are covered prominently is certainly very important in evaluations of the president, but, as Price and Tewksbury argue, "there is no reason why other kinds of politically relevant evaluations might not also be subject to accessibility effects." How do priming effects play out in public discourse about a single issue? How do citizens form opinions on that issue? Clearly, Iyengar and Kinder's original definition of priming is not applicable in this context since it hypothesizes competing influences of various, differentially salient issues. Rather, it can be assumed that individuals' attitudes on a particular issue are predicted by how salient various attributes of the issue or sub-issues are in public discourse.

An important outcome of attribute agenda setting, which we call attribute priming, deals with the influence of mass media on the public's evaluation of issues. Specifically, attribute priming hypothesizes that
certain issue attributes emphasized in the media will become significant dimensions of issue evaluation among the public.

Research Hypotheses

Our study explores the process of attribute agenda setting during a conflict about a proposed commercial development plan in a mid-sized northeastern community. In particular, we examine how the proposal and its various advantages and disadvantages (issue attributes) were covered in the dominant local newspaper and how this coverage influenced the salience of various attributes of the issue among readers. Following that, we link the salience of various issue attributes to citizens' overall evaluations of the proposed plan to show potential priming effects as an outcome of attribute agenda setting. We test the following hypotheses:

H1: Issue attributes salient in the media will be associated with the agenda of issue attributes among the audience (attribute agenda setting).

H2: Issue attributes salient in the media will be associated with significant dimensions of issue evaluation among the audience (attribute priming).

The Issue of the Southwest Park Development

The issue examined dealt with a commercial development of a local area, called Southwest Park (SWP), in the city of Ithaca, New York. In November 1999, the city approved the Southwest Park Development Plan which would fill the area with big-box retail stores. Right after the approval, the plan was confronted with strong opposition from local residents who were concerned about several negative consequences of the development. A series of public hearings was held to debate diverse "pro" and "anti" development opinions. The issue was controversial enough to produce a great deal of media coverage.

Most of the "pro" and "anti" development opinions were based on six major attributes of the issue that might happen as consequences of the development. First, opponents of the plan were concerned about its negative impacts on local economy: (1) Damage to Small/Local Businesses. They argued that large chain-stores in Southwest Park would be putting local establishments out of business, swallowing up a significant amount of local capital. Second, it was pointed out that the development of a large commercial area would result in more traffic in the city, increasing the potential for accidents and pollution: (2) Increased Traffic. Finally, the opponents raised concerns about the potential for flooding as a consequence of the development: (3) Increased Potential for Flooding. They argued that putting a landfill in Southwest Park, the city's designated "Flood Hazard Zone," might cause severe flooding in nearby areas.

Meanwhile, proponents of the development plan referred to several positive consequences. First, they expected that the big-box retail stores would provide a greater selection of products at more affordable prices: (4) More Convenient Shopping. Because there were few large retail
stores in the Ithaca area, many residents of the city had complained that they often had to travel thirty miles or more to nearby larger cities for shopping. Second, it was mentioned that the development would create a large number of new jobs: (5) More jobs. Finally, the proponents argued that the development would increase sales-tax revenues for Ithaca: (6) Increased Sales-Tax Revenues. They expected that the large retail stores would attract a lot of shoppers within the Ithaca area and from other nearby cities as well. Particularly, it was mentioned that the increased tax revenues could result in a decrease in property-tax rates of the city.

Our hypotheses were tested using a combination of content analysis and survey data. The content analysis examined the salience of particular issue attributes in the media, while the opinion survey measured the salience of the same attributes among the public.

**Content Analysis.** In order to identify the attributes salient in the media, we content-analyzed all stories about the SWP issue presented by the *Ithaca Journal* from 20 November 1999 to 29 February 2000, the day before the beginning of our opinion survey (March 2000). In the Ithaca area, the *Ithaca Journal* is the only daily local newspaper most of the city residents rely on for local news.

Even though the commercial development plan was first mentioned in the *Journal* in September 1999, the issue became controversial only after the city of Ithaca approved the development plan in November. Accordingly, our content analysis was limited to the last four months before our opinion survey (November 1999–February 2000), during which the SWP issue was most heavily covered in the *Journal*. In determining the time frame, we also considered several findings from previous agenda-setting research. Winter and Eyal, for example, suggested four to six weeks for the optimal span of agenda-setting effects. Stone and McCombs mentioned two to six months for the transfer of agenda from the media to the public.

We scanned manually the local news, editorial, and opinion column sections of the *Ithaca Journal*, and identified a total of 91 news articles about the SWP issue between 20 November 1999 and 29 February 2000. From the 91 articles, two coders examined how many times each of our six attributes was mentioned. Of the 91 articles found, 65 mentioned at least one of the six attributes of the SWP issue. In some cases, the same attribute was mentioned several times in a single article. No matter how many mentions were made, however, we counted them as one mention as far as they came from a single article. We also found, in many cases, that each article included more than one attribute. Therefore, the six attributes altogether were mentioned a total of 123 times in the 65 news articles about the SWP issue.

**Opinion Survey.** In March 2000, we conducted a telephone survey of 468 residents of Tompkins County, New York, where the city of Ithaca is located, using a random-digit dialing technique. The cooperation rate was 45%. The variables included in our analyses tapped respondents' local newspaper use, awareness of the SWP development plan, opinions on each attribute of the issue, and support for the development. For
control purposes, we also measured demographics of respondents and factors related to a person's ties to his/her community.

In order to measure the level of local newspaper use, we estimated respondents' exposure and attention to local hard news, local editorials, and local human interest stories in newspapers. On a ten-point scale, respondents were asked how often they read (exposure) and how much attention they pay to each of the three types of newspaper content. Those six measurements were combined into a single index indicating the amount of local newspaper use (α = .93).

In order to ask questions regarding the SWP development plan, we first briefly introduced the development plan to respondents and asked whether they had been aware of the issue before the interview (opinion survey). Issue awareness was a dichotomous measure of respondents' previous awareness of the SWP issue (63.7% of respondents were aware of the issue before the interview).

Respondents were then asked their opinions on each of six attributes of the SWP issue: Damage to Small/Local Businesses; Increased Traffic; Increased Potential for Flooding; More Convenient Shopping; More Jobs; and Increased Sales-Tax Revenues. Opinions on issue attributes were measured by asking on a ten-point scale how likely it was for each attribute to happen as a consequence of the SWP development.

Following that, we measured the level of support for the development. Support for the SWP development was also measured on a ten-point scale by asking respondents whether they personally opposed or supported the development. The original ten-point scale for the issue attributes and support questions was later collapsed into a five-point scale where "5" and "6" on the ten-point scale were combined into "3" indicating Neutral opinions.

For control purposes, we measured respondents' age (M=43.32, SD=17.83) and gender (56% female). Education was measured by asking completed years of formal schooling (M=14.72, SD=3.46). Income was estimated on a scale with $10,000 increments (median between $30,000 and $40,000). We also measured respondents' ties to local community. The first measure of local ties was length (years) of residence (M=21.45, SD=20.24). In addition, we asked respondents whether they owned or rented their homes (64.4% home owners). Finally, we estimated respondents' interest in local politics and neighborhood affairs.

**Findings**

Table 1 shows the frequency with which each of the six attributes appeared in the *Ithaca Journal*. The most frequently mentioned attributes were Increased Sales-Tax Revenues and Increased Potential for Flooding, followed by Increased Traffic. Each of these three attributes accounted for about 22% to 23% of the total 123 mentions.

Meanwhile, the other three attributes (Damage to Small/Local Businesses; More Jobs; More Convenient Shopping) were mentioned less frequently, accounting for about 9% to 14% each. In sum, our content analysis showed that Increased Sales-Tax Revenues, Increased Potential for Flooding, and Increased Traffic outnumbered other attributes of the SWP issue, indicating that they were more salient than others in the media.
The attribute agenda setting and attribute priming functions of the media were tested by comparing three groups of respondents. The first group (No Exposure, $N=170$) consists of respondents who were not aware of the SWP issue before the interview (opinion survey). The fact that these people were unaware of the issue indicated that they had not been exposed to the issue through any forms of communication. Some of these people might read local news a lot. As far as the SWP issue is concerned, however, it was assumed that these people had not been exposed to media coverage of the issue. The second group of respondents were those who were aware of the issue, but didn’t read local news a lot. Among 289 respondents who were aware of the SWP issue, we selected the 112 low local newspaper users, using the median score of Local newspaper use index, and counted them as Medium Exposure respondents. The last group of respondents (High Exposure, $N=177$) were those who were both aware of the SWP issue and read local news a lot (i.e., they were above the median score of Local newspaper use index). We assumed that these respondents (High Exposure) had been exposed most heavily to newspaper coverage of the SWP issue, followed by Medium Exposure and No Exposure respondents, before the interview. Media effects were assessed by examining the differences between these three groups of respondents.

Our first hypothesis (attribute agenda setting) deals with the transmission of attribute salience from the media to the audience. To examine the salience of particular issue attributes among the public, we estimated how cognitively accessible the attributes were among respondents. In this operationalization, salience of issue attributes refers to their cognitive accessibility or the “ease in which instances or associations could be brought to mind.” As Price

### TABLE 1
Frequencies of the SWP News Stories Mentioning Each Attribute
(The Ithaca Journal, November 1999-February 2000)

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Frequencies (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Sales-Tax Revenues</td>
<td>28 (22.8)</td>
</tr>
<tr>
<td>Increased Potential for Flooding</td>
<td>28 (22.8)</td>
</tr>
<tr>
<td>Increased Traffic</td>
<td>27 (22.0)</td>
</tr>
<tr>
<td>Damage to Small/Local Businesses</td>
<td>17 (13.8)</td>
</tr>
<tr>
<td>More Jobs</td>
<td>12 (9.8)</td>
</tr>
<tr>
<td>More Convenient Shopping</td>
<td>11 (8.9)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>123 (100.0)</strong></td>
</tr>
</tbody>
</table>

The attribute agenda setting and attribute priming functions of the media were tested by comparing three groups of respondents. The first group (No Exposure, $N=170$) consists of respondents who were not aware of the SWP issue before the interview (opinion survey). The fact that these people were unaware of the issue indicated that they had not been exposed to the issue through any forms of communication. Some of these people might read local news a lot. As far as the SWP issue is concerned, however, it was assumed that these people had not been exposed to media coverage of the issue. The second group of respondents were those who were aware of the issue, but didn’t read local news a lot. Among 289 respondents who were aware of the SWP issue, we selected the 112 low local newspaper users, using the median score of Local newspaper use index, and counted them as Medium Exposure respondents. The last group of respondents (High Exposure, $N=177$) were those who were both aware of the SWP issue and read local news a lot (i.e., they were above the median score of Local newspaper use index). We assumed that these respondents (High Exposure) had been exposed most heavily to newspaper coverage of the SWP issue, followed by Medium Exposure and No Exposure respondents, before the interview. Media effects were assessed by examining the differences between these three groups of respondents.

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TABLE 2
Proportions (%) of Respondents Who Answered "Don’t Know" or "Neutral" on Attribute Questions

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Exposure to Newspaper Coverage of the SWP Issue</th>
<th>Difference between Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Exposure (N=170)</td>
<td>Medium Exposure (N=112)</td>
</tr>
<tr>
<td>Increased Sales-Tax Revenues</td>
<td>47.0</td>
<td>31.3</td>
</tr>
<tr>
<td>Increased Potential for Flooding</td>
<td>54.5</td>
<td>37.8</td>
</tr>
<tr>
<td>Increased Traffic</td>
<td>36.3</td>
<td>26.8</td>
</tr>
<tr>
<td>Damage to Small/Local Businesses</td>
<td>30.8</td>
<td>21.4</td>
</tr>
<tr>
<td>More Jobs</td>
<td>32.1</td>
<td>20.5</td>
</tr>
<tr>
<td>More Convenient Shopping</td>
<td>37.5</td>
<td>17.0</td>
</tr>
</tbody>
</table>

No Exposure: Respondents who are unaware of the issue; Medium Exposure: Respondents who are aware of the issue, but don’t read local news a lot (below the median score of Local newspaper use index); High Exposure: Respondents who are aware of the issue and read local news a lot (above the median score of Local newspaper use index).

and Tewksbury noted, the agenda-setting model hypothesizes increased cognitive accessibility of particular issues as a consequence of media exposure. To examine cognitive accessibility of issue attributes, we estimated the proportions of respondents who indicated Don’t Know or Neutral opinions on issue attribute questions, which asked how likely it was for each attribute to happen as a consequence of the SWP development (see Table 2). The underlying rationale was that the smaller the proportion of Don’t Know and Neutral opinions was, the more accessible was an attribute among respondents.

When compared with No Exposure respondents, those in Medium Exposure and High Exposure groups showed smaller proportions of Don’t Know and Neutral opinions on all six attributes (see Table 2), indicating higher levels of attribute accessibility resulting probably from their exposure to media coverage of the SWP issue. When we compared the High Exposure and Medium Exposure groups, as can be expected, High Exposure respondents indicated higher levels of attribute accessibility on five out of the six attributes we examined. In sum, we found that our six attributes of the SWP issue were most cognitively accessible among High Exposure respondents and least accessible among No Exposure respondents.

There was, however, no apparent correspondence of salience of attributes between the media and their audience. Among both High and
Medium Exposure respondents, *Increased Sales-Tax Revenues*, *Increased Potential for Flooding*, and *Increased Traffic*, which were emphasized in the media, were not more salient (accessible) than other attributes. Particularly, the *Increased Potential for Flooding* was in fact the least salient attribute among High Exposure and Medium Exposure respondents (see Table 2).

The attribute agenda-setting effects emerged when we examined the differences among three groups. The comparison of two extreme cases (No vs. High Exposure groups), shows that the three largest increases of attribute salience between two groups came from *Increased Sales-Tax Revenues*, *Increased Potential for Flooding*, and *Increased Traffic*, the very issue attributes emphasized in the media (see "No - High Exposure" column in Table 2). Rank-order correlation also indicated a significant level of correspondence (Spearman's *ρ*= .754, *p*= .042, one-tailed, *N*= 6) between media emphasis on an issue attribute ("Frequencies" column in Table 1) and the increase of its salience among the audience ("No - High Exposure" column in Table 2).

The same pattern was found when we compared Medium and High Exposure groups. Once again, the largest increases of attribute salience came from the three attributes emphasized in the media (see "Medium - High Exposure" column in Table 2). We also found a significant rank-order correlation (Spearman's *ρ*= .899, *p*= .007, one-tailed, *N*= 6). These findings may support the idea that mass media, by placing varying degrees of emphasis, influence the salience of particular issue attributes in the minds of audiences, i.e., the transmission of attribute salience from the media to the audience.

The comparison between No and Medium Exposure respondents, however, did not support the notion of attribute agenda-setting effects (Spearman's *ρ*= .058, *p*= .457, one-tailed, *N*= 6). Particularly, the largest increase of attribute salience came from *More Convenient Shopping*, which was least frequently mentioned in the media (see "No - Medium Exposure" column in Table 2).

Borrowing from the notion of priming, our second hypothesis (attribute priming) states that issue attributes emphasized in the media will become significant dimensions of issue evaluation among audiences. To identify the significant dimensions of issue evaluation, we used a regression model which included respondents' opinions on six attributes of the SWP issue in predicting their support for the development (see Table 3). Demographics (age, education, gender, income) and local ties (length of residence, own vs. rent, interest in local politics, interest in issues concerning neighborhood) of respondents were all controlled for in the analyses.16

The regression model, when applied to three groups of respondents (No Exposure, Medium Exposure, and High Exposure) separately, revealed different sets of significant predictors (see Table 3). Among No Exposure respondents, *Damage to Small/Local Businesses*, *More Jobs*, and *More Convenient Shopping* were the attributes significant in predicting support for the SWP development. Among Medium Exposure respondents, *More Jobs* and *More Convenient Shopping* remained significant. It is noteworthy, however, that *Increased Potential for Flooding*, which was the


<table>
<thead>
<tr>
<th>Attributes</th>
<th>No Exposure (N=170)</th>
<th>Medium Exposure (N=112)</th>
<th>High Exposure (N=177)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Sales-Tax Revenues</td>
<td>-.119 (.066)</td>
<td>.119 (.124)</td>
<td>.195* (.084)</td>
</tr>
<tr>
<td>Increased Potential for Flooding</td>
<td>-.042 (.060)</td>
<td>-.200* (.091)</td>
<td>-.276*** (.066)</td>
</tr>
<tr>
<td>Increased Traffic</td>
<td>-.109 (.064)</td>
<td>-.068 (.094)</td>
<td>-.083 (.073)</td>
</tr>
<tr>
<td>Damage to Small/Local Businesses</td>
<td>-.188*** (.043)</td>
<td>-.129 (.077)</td>
<td>-.277*** (.057)</td>
</tr>
<tr>
<td>More Jobs</td>
<td>.223** (.075)</td>
<td>.294* (.132)</td>
<td>.096 (.088)</td>
</tr>
<tr>
<td>More Convenient Shopping</td>
<td>.272*** (.070)</td>
<td>.206* (.092)</td>
<td>.195* (.077)</td>
</tr>
<tr>
<td>R-square (%)</td>
<td>33.6***</td>
<td>35.4***</td>
<td>40.0***</td>
</tr>
</tbody>
</table>

Note: Entries are unstandardized regression coefficients with standard errors in parentheses, after controlling for demographics (age, education, gender, income) and local ties (years of residence, own vs. rent, interest in local politics, interest in issues concerning neighborhood).

* No Exposure: Respondents who are unaware of the issue; Medium Exposure: Respondents who are aware of the issue, but don’t read local news a lot (below the median score of Local newspaper use index); High Exposure: Respondents who are aware of the issue and read local news a lot (above the median score of Local newspaper use index).

*p<.05; **p<.01; ***p<.001.

Weakest predictor among No Exposure respondents, became a significant predictor among Medium Exposure respondents. The Increased Potential for Flooding was one of the three attributes salient in the media. Among High Exposure respondents, as shown in Table 3, this attribute (Increased Potential for Flooding) became one of the two strongest predictors of issue evaluation. We also found that Increased Sales-Tax Revenues, another attribute emphasized in the media, became a significant predictor among High Exposure respondents. Increased Traffic, the other salient attribute in the media, was not significant in all three groups however.

To further test the differences among three groups in their evaluative dimensions, we examined interaction effects of newspaper exposure (No vs. Medium vs. High) and issue attributes on support for the SWP development. We tested the interaction effects by using three separate regression models, which included newspaper exposure, six issue attributes, and interaction terms in predicting respondents’ support for the SWP development (see Table 4). Once again, demographics and local ties of respondents were controlled for in the analyses.
TABLE 4
Interactions between Exposure to Newspaper Coverage and Issue Attributes in Predicting Support for the SWP Development Plan

<table>
<thead>
<tr>
<th>Regressors</th>
<th>Model 1 (N=282)</th>
<th>Model 2 (N=289)</th>
<th>Model 3 (N=347)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to Newspaper Coverage of the SWP Issue*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Exposure vs. Medium Exposure</td>
<td>-361 (.640)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium Exposure vs. High Exposure</td>
<td>1.013 (.756)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Exposure vs. High Exposure</td>
<td>.694 (.567)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attributes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased Sales-Tax Revenues</td>
<td>-109 (.076)</td>
<td>.139* (.067)</td>
<td>-.090 (.078)</td>
</tr>
<tr>
<td>Increased Potential for Flooding</td>
<td>-.034 (.069)</td>
<td>-.218** (.083)</td>
<td>-.052 (.071)</td>
</tr>
<tr>
<td>Increased Traffic</td>
<td>-.100 (.074)</td>
<td>-.039 (.084)</td>
<td>-101 (.076)</td>
</tr>
<tr>
<td>Damage to Small/Local Businesses</td>
<td>-174** (.050)</td>
<td>-.127 (.071)</td>
<td>-165** (.051)</td>
</tr>
<tr>
<td>More Jobs</td>
<td>.214* (.088)</td>
<td>.253* (.106)</td>
<td>.216* (.090)</td>
</tr>
<tr>
<td>More Convenient Shopping</td>
<td>.282** (.082)</td>
<td>.215* (.084)</td>
<td>.271** (.083)</td>
</tr>
<tr>
<td>Interactions between Newspaper Exposure and Attributes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure x Increased Sales-Tax Revenues</td>
<td>.236 (.124)</td>
<td>.204** (.058)</td>
<td>.307** (.107)</td>
</tr>
<tr>
<td>Exposure x Increased Potential for Flooding</td>
<td>-.200* (.097)</td>
<td>-.060 (.105)</td>
<td>-.224* (.091)</td>
</tr>
<tr>
<td>Exposure x Increased Traffic</td>
<td>.054 (.105)</td>
<td>-.044 (.110)</td>
<td>.012 (.097)</td>
</tr>
<tr>
<td>Exposure x Damage to Small/Local Businesses</td>
<td>.037 (.075)</td>
<td>-.165 (.089)</td>
<td>-.126 (.070)</td>
</tr>
<tr>
<td>Exposure x More Jobs</td>
<td>.083 (.136)</td>
<td>-.164 (.131)</td>
<td>-.118 (.117)</td>
</tr>
<tr>
<td>Exposure x More Convenient Shopping</td>
<td>-.078 (.111)</td>
<td>-.038 (.110)</td>
<td>-.092 (.107)</td>
</tr>
<tr>
<td>R-square (%)</td>
<td>38.3***</td>
<td>41.0***</td>
<td>43.0***</td>
</tr>
</tbody>
</table>

Note: Entries are unstandardized regression coefficients with standard errors in parentheses, after controlling for demographics (age, education, gender, income) and local ties (years of residence, own vs. rent, interest in local politics, interest in issues concerning neighborhood).

*No Exposure: Respondents who are unaware of the issue; Medium Exposure: Respondents who are aware of the issue, but don’t read local news a lot (below the median score of Local newspaper use index); High Exposure: Respondents who are aware of the issue and read local news a lot (above the median score of Local newspaper use index).

*p<.05; **p<.01; ***p<.001.

The first model analyzed No and Medium Exposure groups together and examined whether there was any significant difference between two groups in their dimensions of issue evaluation. As shown in Table 4, we found a significant interaction effect from Increased Potential for Flooding. The significant interaction indicates that this attribute, which was salient in the media, was more important for Medium Exposure respondents, than it was for those in No Exposure group, as an evaluative dimension of the SWP issue.

When we examined the difference between Medium and High Exposure respondents (see Model 2 in Table 4), we found a significant interaction from Increased Sales-Tax Revenues. This finding suggests that...
the *Increased Sales-Tax Revenues*, another salient issue attribute in the media, was a more important evaluative dimension among High Exposure respondents than it was among Medium Exposure respondents.

The third model analyzed two extreme cases together (No vs. High Exposure groups). As shown in Table 4, interaction effects were significant for *Increased Potential for Flooding* and *Increased Sales-Tax Revenues*. The significant interactions indicate that these two attributes, which were salient in the media, were far more important dimensions of issue evaluation among High Exposure respondents than they were among No Exposure respondents.

These results suggest that the three different groups of respondents (No Exposure, Medium Exposure, and High Exposure) differ meaningfully in their approaches to the SWP issue. In sum, these findings may support the idea that issue attributes salient in the media will become significant determinants of issue evaluations among the audience. Mass media, by placing varying degrees of emphasis, may influence the importance of particular issue attributes as dimensions of issue evaluation.

**Discussion**

Before further discussing our findings, several shortcomings must be noted. First, the data used for this study came from a local survey based on a carefully constructed probability sample. Regardless of its quality, the local nature of the sample limits its generalizability. We believe, however, the local-level study design provides a better setting for the tests of media content and audience relationship, such as agenda setting. Given the different units of observations one has to deal with, linking media content variables and audience responses is always problematic. In order to be able to link the two at all, it is necessary to study a relatively limited population for which the universe of mass mediated messages can be assessed. This is what we attempted to do in this study.

Regarding our content analysis, we also have to question whether the relatively small group of news stories, where the frequent attributes appeared only about fifteen more times than the infrequent ones, is enough to tell us about the salience that one should expect. Given that the issue we analyzed was not a national but a local issue, and that there is only one local newspaper in the area we examined, however, the total number of articles available for analysis was very limited. It also should be mentioned that the six attributes we examined were, in one sense, all relatively salient and controversial ones if we consider all other possible attributes that were hardly mentioned in the paper. If we included the hardly mentioned attributes, we might end up showing larger differences in frequency among attributes. However, we decided to include relatively frequent attributes because comparing salient attributes with those hardly mentioned (probably trivial ones) may inflate attribute agenda-setting effects.

With these shortcomings in mind, this study provided support for the notion of attribute agenda setting which hypothesizes significant correspondence between prominent issue attributes in the media and the agenda of attributes among their audience. By covering certain aspects of
an issue prominently, we found, mass media can influence how salient these aspects are among audience members.

It is important to note, however, that these salience-based outcomes are conceptually quite different from media framing, which is based on the idea of activating existing cognitive schema among audience members and therefore steering audience members toward a specific interpretation or understanding of an issue. In other words, the concept of framing implies that the way a given piece of information is described creates different outcomes among audiences. Attribute agenda setting, in contrast, suggests that the media can successfully make various aspects of an issue more or less accessible and therefore prime which pieces of information people will use when they are making decisions about policies or candidates. As our results show, mass media can play an important informational role in local communities by focusing on mobilizing or other relevant types of information and making them more salient.

Consistent with the notion of accessibility, an important outcome of attribute agenda setting in our study was its priming effect. We found that issue attributes salient in the media were functioning as significant dimensions of issue evaluation among the audience. We thus demonstrated that Price and Tewksbury were right in their assumption that *priming effects go far beyond the mere attitude formation in a presidential race, based on the salience of different issues.* Rather, priming effects can be far subtler, based on differences in the amount of coverage devoted to different aspects of an issue. The media, by emphasizing certain attributes of an issue, tell us “how to think about” this issue as well as “what to think about.” Priming, based on attribute agenda setting, is therefore a key process for decision making and consensus building in local communities. The media play a key role in indirectly shaping public opinions for a wide variety of issues on a day-to-day basis, especially in small communities with a limited number of media outlets for citizens to choose from.

NOTES


8. David Weaver, Maxwell McCombs, and Donald L.Shaw, "Agenda-Setting Research: Recent Developments in Place and Focus" (paper presented at annual meeting, World Association for Public Opinion Research, St. Louis, MO, 1998).


11. Scheufele, "Agenda-Setting, Priming, and Framing Revisited."

12. E.g., McCombs and Shaw, "The Agenda-Setting Function of Mass Media."


16. For a detailed discussion, see Price and Tewksbury, "News Values and Public Opinion: A Theoretical Account"; Scheufele, "Agenda-Setting, Priming, and Framing Revisited."


23. Nelson, Clawson, and Oxley, “Media Framing of a Civil Liberties Conflict.”


27. McCombs and Bell, “The Agenda Setting Role of Mass Media.”


31. For an overview, see Scheufele, “Agenda-Setting, Priming, and Framing Revisited.”


34. According to an opinion survey we conducted in the fall of 2000, for example, 77.2% of respondents in the Ithaca area answered they read the *Journal* for most of news about local events and politics.


37. Inter-coder reliability for issue attributes was calculated on a sample of 20 articles. Reliability corrected for agreement by chance (Scott’s pi) was .82.

38. More than 28% of the SWP articles (26 out of the 91 found) didn’t mention any of the six attributes we examined. They were mostly neutral stories without a specific attribute that may support or oppose the development plan. Those neutral stories include general descriptions of
the plan (where the SWP is located, what kinds of stores will be there, when the plan was initiated and is going to be completed), some procedural matters (when and where the city is going to have public hearings, who are involved in the decision-making process, when and how the final decision will be made), information about the GEIS (the Generic Environmental Impact Statement) prepared by the city (where and when it is going to be available for public review, where to send comments), several recent decisions made by government officials (the New York State Office of Parks, Department of Planning Development, City Attorneys), general comments on the city's handling of local issues.

Some articles mentioned several other attributes not examined in our analysis. They include, for example, drainage problems and water quality in general, some negative aspects of "anti-development" sentiment in the town, impacts on animal life, problems of urban sprawl in general. Some of these might be related to one of the six attributes we analyzed. Unless they mentioned explicitly any of the six attributes, however, we didn't code them as so.


40. Instead of comparing high and low media users, we compared these three groups of respondents for several reasons. Traditional agenda-setting studies dealt with a general pattern in mass media coverage of issues (not a specific issue but many), and examined which issues were covered more heavily than others. This study (a test of attribute agenda setting), however, was concerned about media coverage of a particular issue (the SWP). As far as a particular issue is concerned, we thought, it was more important to see how much an individual was exposed to media coverage of that issue than the amount of his/her media use in general.

Second, and closely related, even though there was a correlation between issue awareness and the amount of media use, about 22% of high media users reported that they were unaware of the SWP issue, indicating they had not been exposed to media coverage of the issue. To include these people in high media users and compare them with low users may deflate the attribute agenda-setting effect. Therefore, we first sorted out those who were unaware of the issue from both high and low media users and grouped them into "No Exposure" respondents. No matter how much local news these people read in general, it was assumed, they had not been exposed to media coverage of the SWP issue. We then divided up those who were aware of the issue into High and Medium Exposure groups, using the median score of the media use variable. We believed that this combination of issue awareness and media use would be a more valid measure of exposure to a specific media content than the amount of respondents' media uses in general.


45. Local ties were controlled for because they might be interrelated with local media use in influencing opinions on local issues. For the relationship between local ties and media use, see Keith R. Stamm, Arthur G. Emig, and Michael B. Hesse, "The Contribution of Local Media to Community Involvement," *Journalism & Mass Communication Quarterly* 74 (spring 1997): 97-107; K. Viswanath, J. R. Finnegan, B. Rooney, and J. Potter, "Community Ties in a Rural Midwest Community and Use of Newspapers and Cable Television," *Journalism Quarterly* 67 (winter 1990): 899-911.
