

## **Method Matters: The Influence of Methodology on Journalists' Assessments of Social Science Research**

Mike Schmierbach  
*Science Communication* 2005 26: 269  
DOI: 10.1177/1075547004273025

The online version of this article can be found at:  
<http://scx.sagepub.com/content/26/3/269>

---

Published by:



<http://www.sagepublications.com>

**Additional services and information for *Science Communication* can be found at:**

**Email Alerts:** <http://scx.sagepub.com/cgi/alerts>

**Subscriptions:** <http://scx.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

**Citations:** <http://scx.sagepub.com/content/26/3/269.refs.html>

>> [Version of Record](#) - Feb 3, 2005

[What is This?](#)

---

---

## ***Method Matters***

*The Influence of Methodology on  
Journalists' Assessments of Social Science Research*

**MIKE SCHMIERBACH**

*College of Charleston*

---

---

*Journalists make frequent use of social science research in news stories, and this information can help shape public opinion and policy. Despite this, few scholars have examined how this coverage is assembled. In particular, researchers have rarely considered how the methodology of social science influences journalists' judgments. This article uses an experimental design embedded within an e-mail survey of working journalists to compare judgments of a qualitative and quantitative study. Results show journalists consider the quantitative study more accurate and newsworthy. The article considers how focusing on N and other basic aspects of methodology might influence coverage patterns and distort representations of social science research.*

**Keywords:** *news judgments; methodology; social science; journalism*

*Both social science researchers and journalists aspire to benefit others. Researchers hope to provide insights that can help illuminate social processes and even produce better policy. Journalists aim to provide useful information to the public. If social scientists can use media to convey their findings, both groups may benefit: journalists receive material from which to construct news content, and scholars receive greater visibility for their insights. No surprise, then, that journalism regularly makes use of social science research as*

---

*Author's Note:* Please address correspondence to Mike Schmierbach, College of Charleston, Department of Communication, 5 College Way, Charleston, SC 29401; phone: 843-953-5775; fax: 843-953-7037; e-mail: schmierbachm@cofc.edu.

Science Communication, Vol. 26 No. 3, March 2005 269-287

DOI: 10.1177/1075547004273025

© 2005 Sage Publications

the subject of articles (Fenton, Bryman, and Deacon 1998). Despite this, few studies have examined the interaction of journalists and social scientists or the process through which social scientific research becomes news (Fenton et al. 1997).

This article adds to that literature, discussing the potential similarities and differences between coverage of the social sciences and other routine forms of reporting, particularly stories focusing on the natural sciences. The study focuses on the influence of an important factor in the social sciences: methodology. Media coverage of science often omits critical methodological details (Frazer 1995; Pellechia 1997). Yet reporters indicate that they prefer quantitative studies (Fenton, Bryman, and Deacon 1998). This study uses an experiment embedded within a survey of journalists to clarify whether reporters truly are attentive to the crude distinction between qualitative and quantitative research or whether even this factor eludes their attention. In particular, the study gauges journalists' beliefs about the newsworthiness and accuracy of a fictional study about women in the workplace, as well as reporters' opinions about how likely their newspaper would be to run a news story based on the study.

### *The Media and Social Science*

As noted, at least three parties stand to benefit from well-constructed coverage of all scientific research: scholars, journalists, and the public. Yet it is not clear whether these benefits actually accrue, given possible shortcomings in typical coverage. For each group, then, science reporting of all kinds is the proverbial mixed blessing.

For the general public, which includes typical news consumers as well as policymakers, the potential benefits include greater insight into the world it occupies as well as information that can help it craft better policy. Unfortunately, much of the current evidence suggests that the public is not well informed and possesses low levels of scientific literacy—that is, it exhibits little knowledge of important scientific facts (Treise and Weigold 2002). Part of the blame is placed on the media; even when newspapers employ specialists in science writing, questions still arise about whether their coverage adequately communicates scientific basics to the public. In particular, some researchers believe that media provide inadequate or even inaccurate information about science, omitting vital details about sources and methods and focusing excessively on conflict (Burnham 1987; Nelkin 1995; Pellechia 1997).

These shortcomings are problematic for the second group: researchers. Scholars in the social and natural sciences have no desire to see their work misrepresented. After all, one key goal of working with the media is improving public understanding of issues the scientist finds important. Given this, many scholars have taken the opportunity to vent about perceived abuses at the hands of journalists (Goldstein 1986; Haslam and Bryman 1994), craft recommendations for scholars planning to work with the media in the future (Cialdini 1997; McCall and Stocking 1982), or even recommend finding a way to avoid dealing with the media and speak directly to the public (Bertenthal 2002). Despite these frustrations, scholars still regularly turn to media. Mainstream attention can lead to greater prestige and other scholarly rewards (Cialdini 1997). Moreover, despite lamentations about the overall quality of science reporting, researchers tend to indicate greater satisfaction with their own media experience (Fenton, Bryman, and Deacon 1998; Weiss and Singer 1988).

Finally, journalists also face complexities when covering scientific research. Journalists often aspire to aid the public interest and agree that accuracy is an important goal of any reporting (Salomone et al. 1990). At the same time, journalists face considerable economic and practical constraints. The privately owned media are highly profit driven, but newspaper circulation is decreasing and competition for television viewers is on the rise (Morton 2003). This creates pressure on journalists to produce more and better selling stories. In addition, the financial pressures mean journalists often have tighter deadlines and more beats to cover. This leads journalists to strive to find ways to produce news while maximizing ease (Gans 1980). The end result is media coverage that displays a remarkable homogeneity, as various reporters adopt the same techniques. Within the field of science reporting, this translates into consistent decisions about what studies warrant coverage, particularly at conferences (Dunwoody 1986; Fenton et al. 1997). Even though reporters value unusual topics (Shoemaker and Reese 1996), they indicate that they get heavy pressure from editors not to miss stories everyone else produces, further reinforcing techniques that generate the same coverage patterns.

One key technique is the use of a "net" of established expert sources who can be relied upon to generate story ideas and provide commentary on other issues (Tuchman 1978). By using this net, reporters can quickly develop content that meets established news standards without having to search for possible topics or sources. Reporters further shape their coverage to reflect perceptions about the value and authority of sources (Weingart and Pansegrau 1999), a practice that partly serves to validate and reward those individuals

who make up the news net. In addition, journalists get many story ideas from public relations materials. The distribution and quality of press releases about studies are highly related to coverage of those studies (Kiernan 2003). This is particularly the case in the hard sciences, which have better established links with specialist reporters and rely on embargoed news releases that preview upcoming journal articles. These techniques are employed by those who cover social science research as well, as reflected in coverage patterns. Fenton, Bryman, and Deacon (1998) found that senior faculty (i.e., those with greater perceived expertise) and scholars who made greater use of available publicity resources were more likely to get coverage for their work.

Even with well-established news routines, however, journalists still need methods to determine what to cover, as the flow of content from source networks and public relations far exceeds the typical news hole. In general, journalists adhere to a set of newsworthiness standards that addresses what warrants news coverage (Peiser 2000; Shoemaker and Reese 1996). These standards align in many ways with reporters' news routines. For example, journalists place high value on importance, which is amplified when news involves experts from a typical source net (Shoemaker and Reese 1996; Tuchman 1978). Journalists also value timely information, which can be obtained by regular coverage of important sources more easily than through in-depth, investigative approaches. And journalists look for information that is relevant to their audience, which leads to developing source networks that reflect perceptions about what interests the audience.

### *Qualities of Social Science Coverage*

These patterns of news routines and judgments help journalists grapple with the various constraints they face and produce regular, if often homogeneous, coverage. These factors act on science coverage much as they do on other types of media content. However, coverage of the social sciences is not entirely like other science coverage, and these distinctions point to some critical areas in which further research is needed.

Evidence from the few scholarly inquiries that have considered social science coverage suggests that social science receives rougher treatment at the hands of journalists. For example, Dunwoody (1986) reports that science journalists at a major conference dismissed much of social science as "garbage science," and Evans (1995) showed newspapers accorded less respect (in terms of wording) to social science research than to coverage of the natural sciences. In part, this distinction may be reflected in the different reporters and sections assigned to social science coverage; although large papers often

have specialist science reporters and sections, few such specialists work in the social sciences, and most social science coverage appears in the main sections of a newspaper (Fenton, Bryman, and Deacon 1998).

In some ways, this might reduce the homogeneity of social science coverage, as a lack of specialists could imply a greater diversity of source networks. Yet content analysis still finds some consistencies in coverage. Economic research is a popular topic, and most media attention goes to quantitative research (Fenton, Bryman, and Deacon 1998; Schmierbach 2000; Weiss and Singer 1988). The latter raises an interesting issue: unlike the natural sciences, social science research is marked by methodological debate. Scholars employ qualitative and quantitative methods, sometimes in conjunction but often exclusively. However, it is not clear whether journalists are attentive to this distinction and how it factors into their coverage patterns. After all, one of the most frequent shortcomings of media coverage is a lack of methodological information (Frazer 1995; Pellechia 1997).

Nonetheless, the content analyses described above and interviews with journalists themselves suggest at least a rudimentary interest in methodology, with a preference for quantitative studies that feature a large number of subjects. In particular, Fenton, Bryman, and Deacon (1998) carried out interviews with journalists who cover social science research, finding greater interest in studies with a large  $N$ . According to their research, reporters indicate using  $N$  as an easy shortcut to determine a study's worth. News routines probably play a role in creating this heuristic. Reporters who rely on expert sources are likely to encounter statistical research, which is regularly commissioned by government agencies, prominent scholarly groups (who have an easier time securing the financing necessary for large-scale quantitative studies), and in-house polling experts. At the same time, this quantitative research represents a "special" form of knowledge distinct from the journalists' own interviewing technique, one that may seem more complex and—by extension—more valuable.

Quantitative research may offer other desirable qualities. Several scholars argue that journalists employ linguistic routines in the same way they use other news-gathering routines (Fowler 1991; Garrett and Bell 1998). Reporters favor stories that are easy to construct and fit within existing storytelling patterns. Qualitative research often relies on complicated or nuanced descriptions, whereas quantitative research offers seemingly more straightforward numerical summaries. Journalists can easily insert statistics or basic statements of significant findings in a way that reflects the basic findings of quantitative research. The same may not be true of qualitative work. However, qualitative research also offers features that may fit with storytelling routines. In particular, qualitative research tends to provide more compelling

or colorful examples, which journalists prefer to purely statistical accounts (Fenton, Bryman, and Deacon 1998). In short, while quantitative research may fit better with many aspects of news routines, there are reasons that reporters might favor qualitative studies.

### *Hypotheses*

As noted earlier, too little empirical research has looked carefully at media coverage of the social sciences. Even within the broader field of science communication, a substantial portion of studies have relied upon anecdotal evidence from assessments of a few news stories (Logan, Zengjun, and Wilson 2000). This work is suggestive, but it does not provide firm evidence that the perceived patterns hold true for coverage as a whole. More systematic content analysis provides a complement to this, but it too is limited. Any analytical approach that looks only at content must necessarily speculate about the underlying reasons for coverage patterns. For example, although content analysis suggests that quantitative research is more frequently the subject of media attention, it does not demonstrate that this is because of journalists making decisions on the basis of methodology. Interviews with journalists thus provide a valuable complement to content assessments, helping show why coverage patterns may occur. Large-scale studies that combine several approaches (e.g., Fenton, Bryman, and Deacon 1998) are ideal, but it is unreasonable to expect most studies to integrate so many methods. However, individual studies can serve to fill in methodological gaps, helping validate and clarify existing research. This study aims to further that process of “triangulation” by employing a different analytical approach: random assignment to experimental conditions that vary the methodology of a hypothetical study and seek reporter feedback. This allows for a firm test of whether differences in study methodology *cause* shifts in journalist perceptions and behaviors. Ideally, the results should match the evidence from other forms of inquiry.

A key initial question is whether differences in methodology alter how accurate journalists feel a research study is. Despite the constraints acting on journalists, they nonetheless place value on accuracy, considering it an important element in determining whether a story should run (Salomone et al. 1990). Rare is the reporter who wants to report on a study he or she believes is false—at a minimum, it would require additional work to track down sources who would critique the findings.

Study methodology could influence accuracy perceptions in several ways. First, journalists are susceptible to the same judgment biases as any other individual. Research in persuasion suggests that quantitative data may

be more persuasive, at least in certain contexts (Allen and Preiss 1997; Hoeken 2001). Although individuals are sometimes swayed by elaborate, in-depth examples more than by mere numbers (Cox and Cox 2001), press releases may not afford scholars the opportunity to present such examples. What is more, nothing precludes quantitative research from also including examples. When the presence of such material is held constant, it appears most people find quantitative research more persuasive and, by extension, more accurate.

Journalists might have additional reasons for favoring quantitative studies. As noted in the previous section, reporters appear to make more frequent use of quantitative research and to employ sample size as a heuristic for deciding whether a study is important. Although some qualitative studies have a large  $N$ , it is unusual, and quantitative research tends to put a greater emphasis on sample size. Thus, quantitative research, because of its familiarity and format, may better fit the news routines of reporters. This may motivate journalists to label such research as accurate, justifying decisions to grant it greater coverage. In conjunction with the work in persuasion, this suggests the following hypothesis:

*Hypothesis 1 (H1):* Journalists will rank a quantitative study as more accurate than a qualitative study that reaches the same conclusions.

Accuracy is one of several factors that contribute to reporter decisions about whether a social scientific study is newsworthy. Reporters are also interested in covering important and meaningful research. More generally, their beliefs about newsworthiness are keyed to existing news routines—these routines are designed to ensure “news” gets covered quickly and efficiently, and in turn, those things that fit within the routine are more readily labeled as “news.” Given that quantitative research may better fit with reporters’ sourcing and storytelling routines, that reporters indicate using a large  $N$  as a heuristic in determining what is important, and that quantitative research may lead to perceptions of greater accuracy, this study tests the following hypothesis:

*Hypothesis 2 (H2):* Journalists will rank a quantitative study as more newsworthy than a qualitative study that reaches the same conclusions.

Journalists’ perceptions are important, but ultimately the social influence of media coverage depends on what material actually reaches the audience. Stories journalists perceive as newsworthy and pursue are certainly more likely to appear in print, but this is not the only determination of what runs.



The process through which journalists—particularly editors—sift through potential stories has been termed *gatekeeping* (Shoemaker et al. 2001). This process helps journalists determine what stories to pursue and what wire copy to run. Given that many social science stories may not originate with staff reporters, especially at smaller papers, it is important to look at the broader issue of whether a story might appear in any form. One key tool employed in gatekeeping is newsworthiness judgments (Gant and Dimmick 2000; Shoemaker et al. 2001). Thus, it seems likely that if quantitative stories increase perceived newsworthiness, this should translate into a greater likelihood that the story would run in some form, as expressed in the following hypothesis:

*Hypothesis 3 (H3):* Journalists will rank a quantitative study as more likely to appear in their publication than a qualitative study that reaches the same conclusions.

So far, the hypotheses have assumed that all journalists will process social science research in a similar fashion. However, this may not necessarily be the case. Several studies have noted the relative lack of expertise reporters employ when covering social science research, with few dedicated specialists and little opportunity to practice regular coverage and develop the associated source networks and other news routines (Fenton, Bryman, and Deacon 1998). For those reporters who do have greater experience with social science coverage, we might expect differences in how they process stories. More experienced reporters might have better-established routines for dealing with social science stories. If so, the incentive to select quantitative stories that better fit these routines would be higher. However, these reporters might also be more knowledgeable and attentive when processing public relations materials dealing with social science research, making them less likely to employ simple heuristics like *N*. Given these potentially conflicting possibilities, this study explores the following research question:

*Research Question 1 (RQ1):* Will journalists' prior experience with social science writing moderate the effects of study methodology?

### ***Method***

To test these hypotheses, this study used an experiment involving working journalists. Journalists from randomly selected newspapers were sent an electronic copy of a hypothetical press release about a recent study involving women in the workplace. The findings of this study contained an experimen-

tal manipulation—respondents received either a quantitative or qualitative study of women's treatment in the workplace.<sup>1</sup>

A random sample of two hundred and fifty daily newspapers was drawn from a directory of daily newspapers in the United States. Newspapers were contacted by phone during regular business hours, and the e-mail address of the person at the paper "most likely to deal with a story about women in the workplace" was obtained. These contacts were then randomly assigned to one of the two methodology conditions and sent an electronic copy of the study including the appropriate version of the press release.<sup>2</sup> Contacts who did not respond with a completed survey or a refusal within two weeks were sent a follow-up e-mail. Respondents could reply by e-mail or standard mail. The survey instructions asked recipients to direct the e-mail to the reporter or editor most likely to write a story on the enclosed press release. Several respondents were not the original recipients, which suggests that journalists understood and followed this direction.

The press release within the survey took one of two forms: qualitative and quantitative. Regardless of condition, the release followed the same format and included the same quotes from fictional researcher, Sean Smith; the same introductory paragraph; and the same contact information. In addition, the survey clearly indicated that the press release was for a fictional study and that journalists should read and assess it as if they had received it through traditional channels. The only variation between conditions was contained in two paragraphs. One indicated that Smith "conducted a survey of 412 randomly selected women employed in office positions" (quantitative condition) or that Smith "conducted detailed interviews of more than 30 women employed in office positions" (qualitative form). Another paragraph reported the findings in qualitative or quantitative formats. In the quantitative condition, exact percentages of women agreeing with certain statements were given; in the qualitative condition, the story indicated that "many" or "most" women agreed with a particular position. All other aspects of the press release and survey were held constant.

### *Response Rate*

Although 250 newspapers were sampled, several of these publications were unable to provide e-mail addresses or provided addresses that were invalid—messages sent to these accounts bounced back unreceived. Only 214 copies of the survey were actually transmitted by e-mail, and some of these may well have never reached their intended targets. Fifty-six respondents returned complete surveys, for a response rate of 26 percent. This is not

atypical for Internet surveys (Couper, Blair, and Triplett 1999; Crawford, Couper, and Lamias 2001). The busy schedules of reporters and aversion to survey participation (a few who sent refusals cited time constraints and a desire to remain objective) no doubt worsened the response rate. However, because this is an experiment, not a true survey, response rate is of minimal importance compared with cell sizes. The study is still a better representation of reporter views than a typical experiment with college undergraduates. In total, twenty-six respondents had received the quantitative version and thirty the qualitative version. Given the similarity in cell sizes and additional analyses that found no correlation between condition and important newspaper characteristics, there is no evidence of a relationship between condition and response rate.

### *Survey Measures*

Randomization should minimize the influence of preexisting factors on the manipulation effects. However, given relatively small cell sizes and the slight risk that condition influenced response rates, the survey included several control variables. Journalists were asked some basic demographic questions: the number of years they had been a journalist, the circulation of their newspaper, the percentage of their coworkers who are female ( $M = 45.7$ ,  $SD = 14.7$ ),<sup>3</sup> and their gender (64 percent female). The years and circulation measures were skewed by a few outlying values. To adjust for this, the five highest values were reduced to the next highest value, which greatly reduced the skewness and potential influence of outliers. For circulation, this involved values above 70,000 (adjusted  $M = 23,685$ ,  $SD = 20,043$ ). For years as a journalist, it included values above 20 (adjusted  $M = 10.4$ ,  $SD = 6.9$ ). In addition to demographics, respondents indicated on a 10-point scale how often they wrote stories about social science research ( $M = 3.3$ ,  $SD = 2.2$ ). This measure helps control for the overall frequency with which a paper runs stories similar to the press release as well as the past experience of the journalist.

Several key dependent variables were assessed after participants read the enclosed press release. On a 10-point scale, respondents were asked how likely it is their paper would write a story based on the press release and how likely it is their paper would run a wire story based on the study presented in that release. These items were combined and averaged to form an index measuring the likelihood a paper would run a story about the study ( $M = 4.4$ ,  $SD = 2.4$ ; Cronbach's  $\alpha = .72$ ). On the same scale, respondents indicated how accurately the story described the workplace ( $M = 5.0$ ,  $SD = 2.6$ ). Finally, respondents indicated on a 10-point scale how newsworthy the story was in

**TABLE 1**  
**Manipulation Effects on Perceived Study Accuracy**  
**and Newsworthiness and Reported Likelihood of**  
**Running Story Based on Study**

<i>Dependent Variable</i>	<i>Mean for Qualitative Condition</i>	<i>Mean for Quantitative Condition</i>	<i>t test</i>
Accuracy	4.31	5.79	2.14**
Newsworthiness	5.73	6.86	1.97*
Willingness to run	4.24	4.58	0.54

NOTE:  $N = 56$  for willingness;  $N = 54$  for newsworthiness;  $N = 53$  for accuracy.  
 \* $p < .10$ . \*\* $p < .05$ .

terms of the following items: timeliness, significance, and relevance to readers. These three items were averaged to form an index of newsworthiness ( $M = 6.3$ ,  $SD = 3.2$ ;  $\alpha = .80$ ).

## **Results**

As an initial test of the hypotheses, simple  $t$  tests were run comparing the means on each dependent variable between the two conditions. These results are summarized in Table 1. The analyses provide support for H1—individuals assigned to the quantitative condition rated the story as more accurate. The data also provide some support for H2—the difference in means for newsworthiness is marginally significant, falling just short of the .05 level. However, the data provide no support for H3. The mean scores on the likelihood a paper would run a story, although varying in the predicted direction, are not significantly different between conditions.

However, this analytical approach offers a limited test of the hypotheses. The inclusion of covariates in the model can reduce the extraneous variance in the dependent variables, thereby decreasing the likelihood of a Type II error and improving model quality. Furthermore, because the data represent a random sample, the direction and strength of the relationship between potential covariates and the dependent variables is itself a worthy topic for empirical investigation. The most appropriate approach to address both these issues is to construct and test linear regression models including the potential covariates outlined in the method section and a dummy-coded variable representing the experimental condition. This approach provides a statistical test equivalent to ANCOVA but has the advantage of providing coefficients for all variables that show both strength and direction of influence.

**TABLE 2**  
**Relationship between Reporter and Publication Characteristics,  
 Experimental Condition, and Perceived Accuracy of Study**

<i>Predictor</i>	<i>Coefficient</i>
Circulation	-.17
Experience	-.14
Female coworkers	.02
Gender <sup>a</sup>	.15
Social science reporting	.18
Quantitative condition	.32*

NOTE:  $N = 52$ ;  $R^2 = .16$  (n.s.). Coefficients are standardized coefficients from OLS regression predicting perceived newsworthiness.

a. Female = 1, male = 0.

\* $p < .05$ .

**TABLE 3**  
**Relationship between Reporter and Publication Characteristics,  
 Experimental Condition, and Perceived Newsworthiness of Study**

<i>Predictor</i>	<i>Coefficient</i>
Circulation	-.42**
Experience	-.20
Female coworkers	-.39**
Gender <sup>a</sup>	.18
Social science reporting	.20
Quantitative condition	.28*

NOTE:  $N = 53$ ,  $R^2 = .39$  ( $p < .01$ ). Coefficients are standardized coefficients from OLS regression.

a. Female = 1, male = 0.

\* $p < .05$ . \*\* $p < .01$ .

Table 2 presents the first of these models, predicting the perceived accuracy of the story. This analysis confirms the findings shown in Table 1 that support H1—individuals in the quantitative condition scored the study as significantly more accurate, regardless of the study's findings. However, none of the other predictors are significantly related to perceived accuracy, and the overall model explains just 16.2 percent of variance.

Table 3 presents a stronger model, accounting for 39.5 percent of total variance. With the inclusion of covariates, the manipulation achieves significance—individuals felt the quantitative study was more newsworthy, supporting H2. In addition, circulation and workplace gender diversity are particularly strong negative predictors of perceived newsworthiness.

**TABLE 4**  
**Relationship between Reporter and Publication Characteristics,**  
**Experimental Condition, Perceived Accuracy and Newsworthiness,**  
**and Likelihood Study Would Receive Media Coverage**

<i>Predictor</i>	<i>Coefficient</i>	
	<i>Base Model</i>	<i>Full Model</i>
Circulation	-.29**	.01
Experience	-.24*	-.06
Female coworkers	-.21	.05
Gender <sup>a</sup>	.05	-.12
Social science reporting	.21	.10
Quantitative condition	.06	-.17
Newsworthiness	—	.57***
Accuracy	—	.19

NOTE:  $N = 52$ ; for the base model,  $R^2 = .19$  (n.s.); for the full model,  $R^2 = .37$  ( $p < .01$ ). Coefficients are standardized coefficients from OLS regression predicting likelihood story covering study would run. Base model includes the first six predictor variables; full model also includes perceived accuracy and newsworthiness.

a. Female = 1, male = 0.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

Finally, Table 4 shows two models—the first mirrors the analyses from Table 2 and Table 3, and shows no support for H3. The model does suggest that media experience and newspaper size are both negative predictors—more seasoned journalists and those working at larger papers are less likely to think the story would run. This may be because these individuals also saw the story as less newsworthy—the table presents a second model that includes newsworthiness and accuracy judgments. This evidence confirms the importance of newsworthiness, which alone proves to be a significant predictor, suggesting it may mediate the influence of other factors like experience. Thus, the underlying rationale for H3 is partially supported, but the expected relationship between study methodology and coverage does not emerge.

These analyses suggest that across all reporters, quantitative studies are seen as more newsworthy and accurate, but these judgments do not translate into a significant impact on potential gatekeeping decisions about whether a story would actually run. RQ1 asked whether these judgments might be moderated by the journalist's prior experience with social science coverage. This was tested by adding an interaction term to the basic models (not including accuracy or newsworthiness judgments as predictors) representing the product of experimental condition and experience covering social science research. These tests did not prove significant for accuracy ( $\beta = .30$ ,  $p = .29$ ) or

newsworthiness ( $\beta = .29, p = .22$ ), although the coefficients are fairly large and in a consistent direction. However, the result is significant for the likelihood the story would be covered ( $\beta = .55, p < .05$ ). In this model, the coefficient for methodology condition becomes quite negative, indicating that those with little experience covering social scientific research were somewhat less likely to expect that a quantitative study would run, while those with a great deal of experience were markedly more likely to think the study would run if it was quantitative.

### *Discussion*

The analyses provide support for two of the three hypotheses. Journalists ranked the quantitative study as more accurate and more newsworthy than a qualitative study with the same findings. Although this did not translate directly to a greater willingness to run a story based on the study, there are reasons to think methodology might affect ultimate gatekeeping decisions. First, the small size of this study increases the probability of missing a true relationship; given a larger sample, the association between methodology and willingness to run might prove significant. Second, newsworthiness appears to be a key variable in explaining gatekeeping decisions, in line with past research. Given that methodology affected judgments of newsworthiness, this may ultimately translate into a greater chance of qualitative studies receiving news coverage. This would parallel both the findings of content analysis (Fenton, Bryman, and Deacon 1998; Schmierbach 2000) and the anecdotal claims made by journalists in interviews (Fenton, Bryman, and Deacon 1998). However, the influence of journalists' own beliefs about newsworthiness may be somewhat offset by predictions about what their editors may be willing to place in a newspaper. While the newsworthiness questions reflect individual perceptions, the likelihood a story would run is premised on reporter perceptions about the entire gatekeeping process, much of which is outside their control.

Reporters may perceive some difficulty in getting quantitative-based studies into their paper, regardless of individual perceptions about news value. In addition, perhaps the increased newsworthiness of the quantitative study is offset by some other factor. One distinct possibility is the typical nature of survey research—journalists strive to present unusual material, and a distant study using survey methodology falls short of that standard. In addition, qualitative research has desirable qualities not reflected by the newsworthiness measure, such as the prospect for more detailed examples. Re-

ardless, the factors that preclude the study rated more newsworthy from receiving greater coverage warrants further investigation.

One insight that may help direct that investigation is the results of the interaction analyses. Although not a significant moderator of accuracy or newsworthiness judgments, experience covering social science research exerted a significant influence on the effects of methodology on decisions about how likely a study would be to run. Journalists who often cover this material did think the quantitative study would be more likely to appear. This could reflect the relative ease these journalists have writing such stories because of their existing news routines. If such routines favor quantitative research, and if the journalists know that their editors and potential audience are interested in such materials, these factors could combine to generate the effect shown in this study. In addition, these reporters (and editors) may have more sway in determining what gets into the paper, amplifying the connection between newsworthiness judgments and gatekeeping decisions.

In addition, the findings provide strong support for the other two hypotheses. Even with the small sample size, the data offer convincing evidence. Given that statistical methods adjust for  $N$ , the chance of a Type I error is essentially equivalent regardless of the number of participants. Instead, the risk with a small sample is that of a Type II error, missing a real relationship. Given that the manipulation overcame this barrier and showed a significant influence on both accuracy and newsworthiness judgments, it underscores the power of this effect.

The most likely explanation for the significant findings is that journalists are using the  $N$  of the study as a quick heuristic for judging the accuracy and value of the research. This would match the limited prior research in this area, particularly the findings of Fenton, Bryman, and Deacon (1998), who interviewed journalists and reported that media professionals perceived a preference for quantitative research. It goes beyond this, however, suggesting that journalists themselves form judgments about the quality of research on the basis of its methodology. Both releases contained explicit references to the number of people interviewed, with the quantitative study having a larger sample size (at the cost of information depth). Indeed, several respondents to the survey who received the qualitative condition included (unsolicited) comments to that effect, noting the small  $N$  as a key factor making them reluctant to give the study much credence.

However, this explanation may not be the only factor at work. In addition to having a larger  $N$ , the quantitative study also had the advantage of explicitly using random sampling methods, which improve the ability to generalize from the findings. This could be another reason journalists rated the quantita-



tive condition as more accurate. Of course, if researchers are attentive to such issues, it suggests a greater amount of methodological knowledge than most critics assume. In addition, the form of the press release may have been better suited to presenting a quantitative study; a release written to highlight the benefits of in-depth interviews might have produced different results.

Interpreting these findings also requires caution about the sample. The ability to generalize from these data may be limited. The sample was of newspapers, meaning small newspapers were overrepresented relative to their proportion of nationwide readership, especially given the low response from larger newspapers (and the skepticism about newsworthiness among those reporters from larger papers). These smaller papers might not reflect how all reporters would cover the issue. In addition, the low response rate could indicate that reporters who are especially interested in social science research were more likely to respond. This would skew the findings if these reporters are more attentive to methodological issues. Finally, the reporters sampled are not necessarily the individuals who would make decisions about what stories to run; many such judgments are made in editorial conferences or other settings without much input from reporters (Clayman and Reisner 1998). Given this, the measure of the likelihood that a story would run may not be a perfect estimate of what actually appears in a newspaper.

The importance of editors raises another point. One reason for evaluating the importance of methodology in reporters' judgments was as a response to criticisms of the methodological savvy of journalists. However, some scholars have suggested that editors may be removing much of the methodological subtlety put in by more knowledgeable reporters (Salomone et al. 1990). Reporters who pay attention to methodology cannot solve presentation problems if editors are working at cross-purposes. Of course, even if we accept that reporters are attentive to some aspects of methodology, the manner of this attentiveness is not necessarily reassuring. A simple reliance on *N*, in particular, risks accepting data from call-in polls and nonrandom surveys as legitimate while ignoring the results from careful but small psychological experiments or detailed and insightful qualitative interviewing.

Certainly, then, future research should endeavor to account for the influence of editors, strive to get a larger and perhaps more representative sample, and consider whether different presentations of study content might reduce or amplify the effects of methodology on news judgments. Nevertheless, this study advances prior research in a number of ways. First, it helps to complement prior studies that have used content analysis to show discrepancies in coverage patterns, with quantitative research getting more attention. By using journalists as units of observation, this study confirms what content analysis could only speculate on: reporter decisions appear to be one cause

for such discrepancies. In this way, the study also offers a quantitative test of what in-depth interviewing had suggested, namely, that journalists perceive greater news value in quantitative research, particularly when focusing on the issue of sample size. Moreover, this study suggests that journalists are susceptible to the same psychological biases as others, being more persuaded by numerical data. Because this study helps clarify and refine the results from other research into the area, it fits into a broader field of work considering the constraints on journalists that help shape their news routines and judgments. Quantitative studies likely offer certain benefits to journalists, providing content that can be easily summarized, meeting standards of importance, allowing for the use of established networks of expert sources, and more generally fitting into patterns of news coverage.

At the same time, this may not be a wholly desirable outcome. Ideally, at least, journalists should provide the public with needed information about society, facilitating the formation of solid policies. Of course, coverage is no guarantee that policymakers will integrate these insights, but if the information is not made available, there is no chance for the public to use it. In addition, media attention can influence decisions about whether to retain and promote faculty as well as which scholars achieve media prominence and become relied upon as expert sources in other contexts. Thus, the scope of research and debate about critical issues may be heavily shaped by media decisions. If these decisions hinge upon something as crude as sample size or the use of statistics, it would omit vital insights from this debate. This study does not imply that such a thing is necessarily taking place—arguably, some of the most vocal scholars conduct primarily qualitative research. However, it does demonstrate that simple differences in methodology have the potential to alter journalists' decisions. At a minimum, scholars would do well to adjust publicity strategies to reflect the strengths of their work, particularly if it is qualitative in nature. At the same time, perhaps journalists should be trained to better understand a variety of methodological approaches so that crude reliance on *N* does not become the primary mechanism for determining whether scholarly research reaches a broad audience.

### *Notes*

1. A second manipulation concerned the results of the study. Women were either found to have achieved workplace equality or to still be struggling to obtain equal standing in the workplace. Because random assignment virtually assures that this condition is unrelated to the methodological manipulation, it is omitted from the results presented here. Additional analyses (not shown) indicate no interactive effects of the two manipulations on any of the criterion variables contained in the hypotheses.

2. E-mail is a particularly apt way to present this material. Most press releases arrive via fax or e-mail, so the format fits with journalistic conventions and is far easier to process than a telephone survey with a spoken version of the release. Electronic surveys also achieve response rates similar to or better than traditional mail, allow for faster response, and save money.
3. One missing value for this variable was replaced with the mean score.

## References

- Allen, M., and R. W. Preiss. 1997. Comparing the persuasiveness of narrative and statistical evidence using meta-analysis. *Communication Research Reports* 14:125–31.
- Bertenthal, B. I. 2002. Challenges and opportunities in the psychological sciences. *The American Psychologist* 57:215–18.
- Burnham, J. 1987. *How superstition won and science lost: Popularizing science and health in the United States*. New Brunswick, NJ: Rutgers University Press.
- Cialdini, R. 1997. Professionally responsible communication with the public: Giving psychology a way. *Personality and Social Psychology Bulletin* 23:675–83.
- Clayman, S. E., and A. Reisner. 1998. Gatekeeping in action: Editorial conferences and assessments of newsworthiness. *American Psychological Review* 63:178–99.
- Couper, M. P., J. Blair, and T. Triplett. 1999. A comparison of mail and e-mail for a survey of employees in federal statistical agencies. *Journal of Official Statistics* 15:39–56.
- Cox, D., and A. D. Cox. 2001. Communicating on the consequences of early detection: The role of evidence and framing. *Journal of Marketing* 21:91–103.
- Crawford, S.D., M. P. Couper, and M. J. Lamias. 2001. Web surveys: Perceptions of burden. *Social Science Computer Review* 19:146–62.
- Dunwoody, S. 1986. When science writers cover the social sciences. In *Reporting science: The case of aggression*, edited by J. H. Goldstein, 67–81. Hillsdale, NJ: Lawrence Erlbaum.
- Evans, W. 1995. The mundane and the arcane: Prestige media coverage of social and natural science. *Journalism & Mass Communication Quarterly* 72:168–77.
- Fenton, N., A. Bryman, and D. Deacon. 1998. *Mediating social science*. London: Sage.
- Fenton, N., A. Bryman, D. Deacon, and P. Birmingham. 1997. Sod off and find us a boffin': Journalists and the social science conference. *Sociological Review* 45:1–23.
- Fowler, R. 1991. *Language in the news: Discourse and ideology in the press*. London: Routledge.
- Frazer, E. 1995. What's new in the philosophy of social science? *Oxford Review of Education* 21:267–83.
- Gans, H. J. 1980. *Deciding what's news: A study of CBS "Evening News," NBC "Nightly News," "Newsweek," and "Time."* New York: Vintage.
- Gant, C., and J. Dimmick. 2000. Making local news: A holistic analysis of sources, selection criteria, and topics. *Journalism & Mass Communication Quarterly* 77:628–38.
- Garrett, P., and A. Bell. 1998. Media and discourse: A critical overview. In *Approaches to media discourse*, edited by A. Bell and P. Garrett, 1–20. Cambridge, MA: Blackwell.
- Goldstein, J. H. 1986. *Reporting science: The case of aggression*. Hillsdale, NJ: Lawrence Erlbaum.
- Haslam, C., and A. Bryman. 1994. *Social scientists meet the media*. London: Routledge.
- Hoeken, H. 2001. Anecdotal, statistical, and causal evidence: Their perceived and actual persuasiveness. *Argumentation* 15:425–37.
- Kiernan, V. 2003. Embargoes and science news. *Journalism & Mass Communication Quarterly* 80:903–20.

- Logan, R. A., P. Zengjun, and N. F. Wilson. 2000. Science and medical coverage in the *Los Angeles Times* and *The Washington Post*: A six-year perspective. *Science Communication* 22:5–26.
- McCall, R. B., and S. H. Stocking. 1982. Between scientists and public: Communicating psychological research through the mass media. *American Psychologist* 37:985–95.
- Morton, J. 2003. Less of a loss. *American Journalism Review* 25 (5): 68.
- Nelkin, D. 1995. *Selling science: How the press covers science and technology*. New York: Freeman.
- Peiser, W. 2000. Setting the journalist agenda: Influences from journalists' individual characteristics and from media factors. *Journalism & Mass Communication Quarterly* 77:243–57.
- Pellechia, M. G. 1997. Trends in science coverage: A content analysis of three U. S. newspapers. *Public Understanding of Science* 6:49–68.
- Salomone, K. L., M. R. Greenberg, P. M. Sandman, and D. B. Sachsman. 1990. A question of quality: How journalists and news sources evaluate coverage of environmental risk. *Journal of Communication* 40:117–30.
- Schmierbach, M. 2000. A study of stories on studies: Media coverage of social science research. Master's thesis, University of Wisconsin-Madison.
- Shoemaker, P. J., M. Eichholz, E. Kim, and B. Wrigley. 2001. Individual and routine forces in gatekeeping. *Journalism & Mass Communication Quarterly* 78:233–46.
- Shoemaker, P. J., and S. D. Reese. 1996. *Mediating the message: Theories of influences on media content*. White Plains, NY: Longman.
- Treise, D., and M. F. Weigold. 2002. Advancing science communication: A survey of science communicators. *Science Communication* 23:310–22.
- Tuchman, G. 1978. *Making news: A study in the construction of reality*. New York: Free Press.
- Weingart, P., and P. Pansegrau. 1999. Reputation in science and prominence in the media: The Goldhagen debate. *Public Understanding of Science* 8:1–16.
- Weiss, C., and E. Singer. 1988. *Reporting of social science in the national media*. New York: Russell Sage.

*MIKE SCHMIERBACH is an assistant professor in the Department of Communication at the College of Charleston in South Carolina. He received his Ph.D. in 2004 from the University of Wisconsin-Madison.*