

Qualitative Quotes:
The Prevalence and Effects of Survey Respondent Exemplars
in Political News Coverage

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National newspapers regularly report on public opinion as part of their political coverage. In addition to covering aggregate survey trends, journalists occasionally conduct follow-up interviews with respondents from those surveys to present the views of real people in news stories. The practice of reporting these “qualitative quotes” has existed for decades, yet there has been little scrutiny of the voices that appear in news stories or their effect on public opinion. We examine this phenomenon in the context of the United States with a historical examination of *New York Times* stories and other major U.S. outlets that contain polling information and follow-up interviews. Consistent with past work on exemplars, there is considerable evidence for the non-random nature of the people invited to comment for news stories. In particular, the use of qualitative quotes reinforces some of the biases that exist in news sourcing more generally. Finally, we demonstrate in an experiment that qualitative quotes influence policy attitudes as least as much as aggregate polling figures.

Key words: polling, survey, opinion polls, media coverage

Few technologies have influenced democracy as much as the random sample public opinion poll. Opinion surveys provide a cost-effective and statistically sound method of determining public preferences (Converse 1996). They also have been described as “rigorously egalitarian” because “each citizen has an equal chance to participate and an equal voice when participating” (Verba 1996, 3). As a result of their scientific rigor and normative appeal, polls have become virtually synonymous with public opinion (e.g., Berinsky 2004; Herbst 1994). Polling data exerts a strong influence over what politicians say and do (Geer 1996; Druckman and Jacobs 2006). Polls also affect ordinary people: behavior and opinion can change when citizens learn the distribution of preferences in the electorate (Mutz 1998; Nadeau, Cloutier, and Guay 1993). In addition to aggregate-level survey results (e.g., the percentage of people favoring a position), the news media often interview particular survey respondents who agree to speak to reporters for attribution. These remarks, which we call “qualitative quotes,” have received little scholarly attention despite their presence in political news coverage since at least the 1980s.

Qualitative quotes come from follow-up interviews that occur after the survey, but this non-numeric information is often reported along with (the quantitative) aggregate trends in news stories about the poll. The practice of including such quotes is one way journalists use exemplars to illustrate the subject of a news story (e.g., Arpan 2009, Brosius and Bathelt 1994; Gibson and Zillmann 1998; Zillmann et al. 1996). But as others have observed, exemplars are “rarely randomly sampled from the population and, thus, do not reliably represent the phenomenon with which they were intended to correspond” (Lefevre, De Swert and Walgrave. 2012, 722). Indeed, as we report below, there is considerable evidence for the non-random nature of the people invited to comment for news stories.

Using an original dataset of *New York Times* stories containing polling data and follow-up interviews, we document the prevalence of qualitative quotes in the United States between 1980 and 2016. Our analyses reveal that the selection of people for follow-up interviews reproduces many of the biases observed in other areas of sourcing. Moreover, we provide experimental evidence that qualitative quotes have an independent influence on public opinion, aside from the effects of aggregate polling data itself. This is a crucial finding because the mass media are the primary way people learn what the population thinks about political issues (e.g., Moy and Scheufele 2000). Overall, our study contributes to a growing body of research that illustrates the limitations of polls for conveying the public will (e.g., Althaus 2003; Herbst 1993) as well as the literature examining how journalists report on public opinion data (e.g., Bhatti and Pederson 2016; Searles, Ginn, and Nickens 2016; Toff N.d.).

The Use and Origins of Qualitative Quotes

Media sponsorship of public opinion polls dates to the 1970s and the rise of “precision journalism” (Crespi 1980; also see Anderson 2018). In the case of the *New York Times*, a contractual arrangement with CBS News began in 1975 (Frankovic 1998, 157).¹ Typically in these relationships, the newspaper publishes articles explicating the results of surveys conducted by their partner organization. Oftentimes, the polling group has identified respondents who are willing to speak to reporters at a later date about the topics raised in the survey. Thus, qualitative

¹ Other examples include *Washington Post/ABC*, *L.A. Times/Bloomberg*, and *USA Today/Gallup*.

quotes are distinct from a person's responses in the survey, although their responses may have helped them think about issues raised in the follow-up interview.²

Qualitative quotes vary in length, but they generally are accompanied by identifying information such as name, age, hometown, and partisanship of the quoted individual. In most cases, the journalist notes that the viewpoints come from people who participated in the opinion poll. As an illustration, we show a series of qualitative quotes from a June 17, 2007 *L.A. Times* story.³ The article covered people's views on the 2008 presidential primary election and the reporter explicitly stated that the quotes came from "follow-up interviews of poll respondents":

Frederick Cole wants the Democratic Party to take back the White House in 2008. "Look what a mess we're in," said Cole, a nurse in Louisville, Ky. "It's time for some fresh, new-thinker ideas."

"I just don't feel like [Hillary Clinton] has the integrity to do the right thing," said retired service-station owner Richard James, 62, a Democrat who lives in Herriman, Utah.

To Carol Bendick, 63, a Democrat who lives in Danville, Ill., Bush is too cozy with the oil industry, and she, too, wants a Democrat to succeed him. But she would support Giuliani over Clinton. "Who wants four or eight more years of the Clinton's marital disputes, paid for by the United States, we the people? I certainly don't," said Bendick, a teacher on disability.

Kevin Kidd, 45, a Democrat who owns a bar in Farwell, Mich., said a female president would make the United States "look a little wimpier. Some countries have women presidents, and I just think it makes them look weak," he added.

² As we note below, the data suggest that journalists conduct the follow-up interviews, as opposed to the survey interviewer. One might also expect this on the grounds that journalists are the "primary selector of sources and story subjects" (Armstrong 2004, 142), though we acknowledge that more definitive evidence would come from interviews with journalists.

³ The story was titled, "Democrat in '08! But not her. Voters back the party in polls. Its candidates are another story," and the author was Michael Finnegan. Follow-up interviews were drawn from a June 7-10, 2007 *Los Angeles Times/Bloomberg* election poll of 1,183 adults.

Retired Pennsylvania truck inspector Earl Geer, 55, an independent, is disgusted with the Bush administration and hopes a Democrat will capture the White House. But he would pick a Republican over Edwards. “I just think he’s a slick character,” Geer said.

As these quotations illustrate, a range of topics was considered, including dissatisfaction with the Bush administration, Clinton’s integrity, and the effectiveness of a female president.⁴ Qualitative quotes are common during elections (e.g., in combination with polls that solicit views about the candidates), but they also appear in conjunction with surveys on high profile policy issues or political scandals.

Qualitative Quotes as Exemplars

Qualitative quotes are an example of what communications scholars refer to as exemplars: “‘man (or woman) on the street’ opinions or descriptions of events” that are used to

⁴ Likewise, in 2016, Hillary Clinton and Donald Trump, were featured in a *New York Times* article titled, “Voters Express Disgust over U.S. Politics in New York Times/CBS Poll.” The article quotes several respondents from a poll of 1,333 registered voters from Oct. 28 to Nov., 1, 2016. The first quote from Shelia Wagner, 79, Republican from Redmond, Washington who said, “‘I think Donald Trump has definitely divided the party,’” and the story went on: “‘She said she had already marked her ballot for Mrs. Clinton, adding: “‘When he first declared he was going to run, I thought it was a joke. I just couldn’t believe anyone would favor him.’” That same article features quotes from two other Republicans, one of whom favored Trump and another who talked about the divisiveness of the campaign: “‘The campaign has gotten uglier and uglier,’” said Michael Pappas, a real estate broker in Knoxville, Tenn., who is a Republican. “‘It’s been about mudslinging and attacking personalities instead of talking about issues, talking about how we can help our country move forward and succeed.’”

illustrate an event or issue that is the subject of a news story (Arpan 2009, 250). Exemplars (also called “vox pops”; Lefeverre, De Swert, and Walgrave 2012) are a vehicle for personalizing an issue and thus have become “a highly prevalent journalistic practice evident in both print and broadcast stories” (Arpan 2009, 249). Exemplars disproportionately affect audience perceptions of phenomena, particularly in relation to statistical (i.e., base-rate) information that appears alongside it (Brosius and Bathelt 1994; Gibson and Zillmann 1998; Lefeverre, De Swert, and Walgrave 2012). For example, in one study, subjects were provided with a news story about family farms, part of which included the percentage of farms (30%) that lose money each year (Zillmann et al. 1996). The authors manipulated whether exemplars—which consisted of quotations from farmers who were either successful or unsuccessful—were consistent with the base-rate information. When the majority of quotations were from farms that were failing, subjects overestimated the percentage of farms losing money. When the ratio of quotations from successful and unsuccessful farms accurately represented the base rate information (i.e., a third of the quotes from unsuccessful farms; two thirds from successful farms), accuracy was higher. Similar findings have been reported for perceptions of carjackings (Hubbard 2011), welfare recipients (Hamill, Wilson, and Nisbet 1980), and the percentage of dieters who regain weight (Zillmann et al. 1992).

While there is a large literature on exemplars in the field of communications, these insights have yet to be applied to a context where a type of exemplar appears with some regularity: news coverage of politics. Moreover, qualitative quotes are distinct in that the quoted individuals are selected *from the opinion poll itself*. As such, they differ from “man on the street” interviews in which someone with “no direct connection” to a news event is asked by the reporter to comment on it (Beckers 2017, 1028). Qualitative quotes should have an especially

powerful effect on audience members because of how mediated portrayals of collective opinion influence people. According to Mutz, “knowing the opinions of others induces people to think of arguments that might explain those others’ positions” (1998, 212). Someone reading a story with qualitative quotes would not only discover the prevailing view, but also the *rationale* for those opinions. In this way, the quotations mimic the elaboration process that is thought to underlie the persuasive power of polling information (Mutz 1998). To our knowledge, however, there has been little examination of the quotes that appear in political news coverage or their effects on public opinion. We address this gap in the literature and are guided by three hypotheses.

Based on the presumption that exemplars are used “to add interest to a story” (Arpan 2009, 250), we expect that the people who are selected to provide a quote will represent a non-random sample of respondents from the underlying poll. Two different streams of research—the first on news sourcing, and the second on “information effects” in opinion surveys—suggest a particular direction to this bias. Studies of the work routines of journalists reveal systematic patterns in source selection, such that “white, male elites dominate as news sources” (Grabe, Zhou, and Barnett 1999, 294; also see Brown, Bybee, Wearden and Straughan 1987; Shoemaker and Reese 1996; Sigal 1973). One reason the selection of qualitative quotes might mimic patterns in news sourcing is suggested by the work of Scott Althaus (2003). He has shown that certain respondents—in particular, highly educated white males—give substantive (i.e., non-“Don’t Know”) answers to survey questions at higher rates than other respondents.⁵ We expect

⁵ Althaus (2003) documents differences between survey samples and the subset of respondents giving substantive answers to questions. The latter tend to be more politically knowledgeable; hence his use of the term “information effects.”

that the inclusion of qualitative quotes in news stories will reinforce previously documented biases in source selection (Hypothesis 1). In our first study, we look for bias in two ways: by analyzing which survey respondents are selected to be in the pool of potential interviewees and investigating the characteristics of those who get quoted in a story.

Insofar as the process of selecting people for follow-up interviews is purposive, to what end do journalists use qualitative quotes? Previous researchers have observed that “the selection of exemplars is controlled by journalists’ subjective impressions when seeking to underscore certain aspects of an issue” (Daschmann 2000, 162). Likewise, in a study of exemplars in television news, Beckers, Walgrave, and Van den Bulck (2018, 286) write that they “provide journalists much freedom to select opinions that fit into their news story.” Thus, journalists employ ordinary people in new stories in much the same way they use other sources: to develop a narrative that conveys the subject of the story in a “familiar, easy-to-grasp communication package” (Bennett 2012, 44). When it comes to articles about survey results, the narrative structure of the story is driven by the top-line results of the poll, typically summarized by the headline. We therefore hypothesize that the position implied by qualitative quotes will support (i.e., be consistent with) the story’s headline (Hypothesis 2).

Finally, because exemplars are chosen for their “dramatic, entertaining, or sensational qualities” (Zillmann et al. 1996, 428), we expect that qualitative quotes will exert an influence on opinion that is distinct from that of aggregate polling information (also see Daschmann 2000). Someone who is exposed to qualitative quotes arguing in favor of (against) a particular policy or issue position should be more supportive (opposed) than someone who is not exposed (Hypothesis 3). We test this hypothesis in an experiment employing qualitative quotes.

Study 1: Data and Methods

Our analysis begins with a historical look at the frequency of articles with polls and follow-up qualitative quotes in the *New York Times*. Over the period 1980 to 2016, we used Lexis-Nexis to identify news stories that covered public opinion surveys. We were not interested in generic references to polls from sources beyond the newspaper in question. Instead, we focused on surveys conducted in the days prior to the article which are sponsored by the newspaper and their partner polling organizations. In particular, we searched Lexis-Nexis for the term “poll” or “survey” in the full text of an article (we also used the name of the survey organization as one of the search terms).⁶ For each article matching the criteria, a researcher read the story for mentions of survey results and follow-up quotes.⁷

Once news stories with polls and follow-up interviews were identified, we collected information about the quoted individuals and the substance of their remarks. More specifically, we created a series of dichotomous variables that indicated whether particular details about the person were noted in the story (1=present, 0=absent), including their partisanship, age, occupation, city, state, gender, name, race, and religion. We also coded the direction of the quote

⁶ For example, when searching for poll articles in the *New York Times*, we searched for “*New York Times/CBS News*” in the full text (excluding news summaries and editorials).

⁷ We selected the *New York Times* as our source because it is an influential newspaper with a large national circulation. We also conducted a two-year (2006-2007) sample of three other newspapers: *USA Today*, the *L.A. Times*, and the *Washington Post* to ensure that this phenomenon was not unique to the *New York Times*. Analyses of these sources is in the Supplementary Information (Table A-2).

on a liberal (1) to conservative (-1) continuum and assessed whether the statement supported or contradicted the headline of the article.⁸

In addition to characterizing features of the people quoted in *New York Times* stories, we acquired the underlying data (n=207 surveys) from the archives of the Roper Center for Public Opinion Research.⁹ Along with various topical issues, the surveys had items asking the respondent's race, gender, age, income, education, and partisanship, as well as a variable used to screen people for possible follow-up interviews with a reporter. Often called "chatty" in the *New York Times/CBS* codebooks, the variable is a three-point interviewer designation of whether the respondent is (1) willing to be called back by a reporter and is talkative, (2) willing but not talkative, or (3) not willing. Respondents' values on this variable are thus a joint function of the

⁸ Intercoder reliability was assessed with a random sample of quotations (22%) from the main sample. The coding task was straightforward (e.g., noting the presence or absence of a particular piece of information), so reliability was high (with values of Cohen's kappa ranging from .78 to 1.0). Reliability estimates for each coding category are shown in Table A-1 in the Supplementary Information along with other details on the coding process. We established the reliability of the process for identifying relevant articles by having a second coder replicate the search process for a randomly selected 20% of the sample. The correlation for number of articles deemed to have polling data/qualitative quotes was .78 ($p < .01$).

⁹ We acquired the survey data for the overwhelming majority of stories in our dataset. Occasionally a survey mentioned in an article was not in the Roper iPoll Archives or other sources such as the Inter-University Consortium for Political and Social Research (ICPSR).

decisions of respondents (who say they are willing) and interviewers (who identify them as highly verbal).¹⁰

In our analyses, the variable (hereafter, *Chatty*) is reversed coded so that the top response category (labeled “1”) identifies people who are willing to be called back by a reporter and talkative (41% of respondents) and the remaining categories (59% of respondents) are scored 0. As we see in our first study, the people who receive this designation differ considerably from the typical survey respondent.¹¹

Study 1: The Non-Random Nature of Qualitative Quotes

From 1980 through 2016, more than three thousand (3,218) articles mentioned poll results in *New York Times* articles based upon polling from the joint *CBS News* and *New York*

¹⁰ In most cases the *Chatty* item read, “Would you be willing to have a reporter call you back in a few days to discuss your views further?” There are a small number of surveys in which the protocol differed slightly (e.g., the interviewer coded talkativeness without directly asking about willingness to be contacted by a reporter). We confirmed that these variations do not alter our substantive findings and cluster by individual survey in the analyses reported in Table 1.

¹¹ In the original data, *Chatty* was distributed as follows: 25% of respondents were unwilling to talk to a reporter, 34% were willing but not rated as talkative by the interviewer, and 41% were willing and talkative. Our substantive conclusions change little when we use the three-point variable as the dependent measure (see Supplementary Information Table A-3). The practice of screening respondents is not restricted to the *NYT/CBS* team. For example, *NBC News/Wall Street Journal* employ a designation called “object,” which records whether survey respondents have an objection to being called back by a reporter at some later time.

Times polling team. Of these, approximately twelve percent (n=370) contained follow-up interviews with qualitative quotes. Yet the aggregate figure masks a considerable amount of heterogeneity as shown in Figure 1. In some months, more than half of poll stories featured follow-up interviews. Occasionally the percentage was higher, and in some months, *every* poll article featured qualitative quotes. The number of polls cited in news articles tends to spike around an election year. During non-election years, the number of stories with polls and follow-up quotes appears fairly consistent.

Figure 1 about here.

Among the stories with follow-up interviews, roughly fourteen hundred people (n=1,392) were quoted. These individuals are identified in the news article with varying amounts of background information in order to provide some personalization and context for the quote. The most common details appearing in a story are: a person's gender (appearing in 99% of the stories), name (94%), home state (98%), age (77%), and occupation (67%). In addition to basic attributes, 36% of the articles report an individual's party affiliation when quoting them. Even though Democratic identifiers outnumber Republicans in the underlying survey data (38% versus 31%; $p < .01$), a higher percentage of qualitative quotes come from the latter (15% from Republican identifiers versus 11% from Democratic identifiers; $p < .02$).¹²

Hypothesis 1 states that the people who are selected to provide a quote about the topic of a survey will largely reproduce biases observed in other areas of news sourcing. We begin by examining the correlates of being rated “chatty” by the interviewer. The very existence of this

¹² In 10% percent of the stories, the quoted person is described as an Independent. All statistical tests in Study 1 are two-tailed.

variable suggests that there will be non-randomness in the people who are selected to appear in news reports. Table 1 speaks directly to this point. The estimates come from a logit model in which the dependent variable is a person's designation on *Chatty* and the independent variables include demographic controls, self-reported partisanship and ideological identification, and dummy terms for the decade in which the survey was administered. Variables that are positively signed and statistically significant indicate that a respondent with those characteristics was more likely to be scored in the top category of *Chatty*. Marginal effects show the effect of a one-unit change in a variable on the dependent measure.

Table 1 about here.

People with greater levels of formal education and higher incomes are more likely to be coded as chatty than those with lower levels of education and income ($p < .001$ for both). The substantive effect for both factors is substantial: holding other model variables at their mean or mode, changing from the lowest to highest level of education is predicted to increase the likelihood of being coded *Chatty* by 15 percentage points ($p < .01$).¹³ Changing from the lowest to highest level of income increases the likelihood of being coded *Chatty* by roughly 5 percentage points ($p < .01$). The same pattern is observed for older people (though the direction of this effect declines as a person ages) and for people who describe themselves as liberal versus moderate (both $ps < .001$). In contrast, black and Hispanic respondents, females, and self-described Republicans and conservatives are significantly *less* likely to be designated as chatty (relative to whites, males, Independents, and ideological moderates; all $ps < .001$). The

¹³ This figure represents the effect of moving from the bottom to the top of the education variable (which has four categories). The marginal effect of a one-unit change, as noted in Table 1, is .05.

coefficients on the decade dummies indicate a significant intercept shift downward (relative to the 1980s) in the likelihood of being labeled chatty. This could indicate either that respondents became less willing to speak to reporters over the time period of our study or that interviewers found respondents less talkative (or a combination of both).

It is clear from Table 1 that certain respondents are excluded from the pool of individuals who are invited to provide follow-up quotes. Consistent with the work of Althaus (2003), who observes differences between a survey sample and the respondents who give substantive answers to questions, there are differences between respondents rated as chatty (and thus likely to be invited for a follow-up interview) and the “typical” survey respondent. Indeed, certain factors, such as a person’s level of education, gender, and race, have reinforcing effects: the characteristic is associated with giving a substantive response and being labeled chatty.¹⁴

The fact that *Chatty* reflects self-reported willingness to speak to a reporter *and* talkativeness as assessed by the interviewer raises questions about bias on the part of the person making that judgement. In our data, most of the interviewers were non-minorities (only 26% were African-American and 6% were Hispanic), though they were roughly evenly split by gender (55% female). In Supplementary Information Table A-4, we report auxiliary analyses that control for the race and gender of the interviewer (as well as interactions with terms for *Black*, *Hispanic*, and *Female*). In those models, we observe the same patterns as Table 1 and note a few interesting findings. Both black and Hispanic respondents are significantly less likely to be coded as chatty by white interviewers ($p < .05$ and $p < .001$ respectively), but that tendency is reversed

¹⁴ We come to a similar conclusion we estimate a multinomial logit model with the three-category dependent variable (see Supplementary Information Table A-3).

when they are interviewed by people of the same race. In particular, a black respondent is 15 percentage points more likely to receive the chatty designation when talking to a black interviewer (effect = .15; $p < .01$). Likewise, a Hispanic talking to Hispanic interviewer is about 7 points more likely to be coded as chatty (effect = .07; $p < .01$). Female respondents are more likely to rated chatty by women interviewers, but the effect, while statistically significant, is small (effect = .01; $p < .01$).

To this point, we have assumed that there is a relationship between being designated as chatty and appearing in a news story for attribution. In our next series of analyses, we provide evidence for that assumption for the ten-year period from 2000 to 2009. In order to do this, however, we needed to link the individuals quoted in the published newspaper stories with particular respondent(s) in the underlying survey data.¹⁵ During this time period, 416 respondents quoted in *Times* articles could be identified with some confidence in the underlying survey—by which we mean that no more than five respondents fit the description of the individual within the article. Of this number, 282 individuals could be *uniquely* identified. In the analysis that follows,

¹⁵ We used details from the article to identify a respondent with the same attributes in the underlying poll. The surveys redacted respondent names, but the articles often provided enough clues (e.g., gender, age, partisanship, state of residence) to identify the quoted respondent. Given how time consuming it was to accurately link the quoted person with a unique survey respondent, we limited ourselves to a subset of the larger dataset.

we analyze both the total number identified (416) and the subset that we confidently assert to be the person quoted in a *New York Times* article (282).¹⁶

Whichever group of respondents we examine, the pattern is the same: quoted individuals are more likely to have expressed a willingness to talk to reporters and have been coded as talkative by the survey interviewer (i.e., *Chatty* =1). Considering the set of quoted respondents who could be identified with some confidence in the underlying survey data (n=416), 81% expressed a willingness to talk to a reporter and are labeled talkative, compared to 36% of the overall survey sample that was not quoted in a newspaper story ($p < .01$). Among individuals we could uniquely identify, nearly 94% were coded as chatty in the underlying survey ($p < .01$).

The preceding figures indicate that nearly everyone who is quoted in a news story has been previously identified as chatty. Yet journalists surely exhibit some discretion in selecting the handful of people who get follow-up interviews. Using the data from 2000-2009, it is possible to compare the characteristics of *quoted* respondents with the overall survey sample. Whereas the *Chatty* designation was a function of the respondent's willingness to participate in follow-up interviews and the interviewer's assessment of their talkativeness, this next analysis speaks more directly to the role of the journalist (e.g., because only a fraction of chatty people are quoted in news stories).

Table 2 shows mean values on demographic and attitudinal variables for all survey respondents (Column 1), respondents labeled *Chatty* (Column 2), and quoted individuals we

¹⁶ The 416 respondents appear across 95 surveys. These analyses do not present confidentiality concerns because the public opinion data remain unidentified. The quoted individuals *chose* to reveal their identities publicly in a news story.

could uniquely identify in *New York Times* stories (n= 282, as noted above). The contrast between the first and second columns is similar to the analyses presented in Table 1, and it illustrates the differences between the overall pool of survey respondents and those who are identified as potential interviewees. That comparison is presented in the fourth column (“Bias in Chatty”) and those entries replicate what we presented in Table 1: the pool of quotable individuals is significantly more likely to be educated, wealthy, white, and less conservative/Republican than those who are not identified for follow-up interviews. As we have noted, those patterns are the result of (at least) two factors: a survey respondent’s willingness to speak to a reporter and the interviewer’s characterization of the respondent as talkative.

Our primary interest in Table 2 is the comparison between the first and third columns, as this contrast illustrates the journalist’s role in choosing the specific individuals who have follow-up interviews (shown in the fifth column of Table 2, “Bias in Quoted Group”)

Table 2 about here.

When it comes to income, gender, and conservatism, the characteristics of quoted people (Column 3) are not significantly different from the overall sample (Column 1). In other words, during the process of selecting people for a follow-up interview, journalists bring the pool of quotable people more in line with the underlying survey on these dimensions. Consider the example of income. Although the interview pool is significantly wealthier than all survey respondents ($p < .01$), there is no difference in mean level of income between those who were quoted and the underlying survey.

In the case of age, party identification, and liberalism, journalists “overcorrect”—which is to say there is a statistically significant difference between quoted individuals and the overall sample, but this difference is in the *opposite* direction of that reported in the fourth column. For

example, Republicans are less likely to be labeled *Chatty* than other respondents, but the pool of quoted individuals is more likely to self-identify as Republican than the average survey respondent ($p < .05$). A similar “overcorrection” appears for Democrats, liberals and age, with quoted people being less Democratic and liberal, but older than the typical survey respondent. These patterns imply that journalists attempt to correct some of the biases that shape the interview pool. Norms of objectivity might be driving this behavior (e.g., in the case of gender and self-reported party identification/ideology), yet here we can only speculate. Interviews with journalists (as in Toff N.d.) would offer more definitive evidence regarding the process by which quotes are selected.

In other domains—a person’s race/ethnicity and level of education—the quoted sample is less diverse than respondents in the interview pool and the underlying survey. Comparing the racial makeup of all survey respondents (Column 1) to either the interview pool (Column 2) or the subset of people who are quoted in news stories (Column 3), Table 2 reveals there are fewer African-Americans and Hispanics as the process for identifying quotable individuals unfolds. As shown in the fifth column, there are significant differences between the quoted sample and the underlying survey in the black and Hispanic categories. A similar reinforcing pattern appears for education (i.e., the education level of quoted people is significantly higher than both the interview pool and the underlying sample).

Taken together, the findings in Tables 1 and 2 show two patterns, both of which are broadly consistent with Hypothesis 1. First, quoted individuals are not chosen randomly from the survey underlying the news story. In order to be quoted in a newspaper article, respondents must first self-select into the pool of potential follow-ups (i.e., express willingness to be contacted by a reporter) and also be characterized by the interviewer as talkative. This pool of quotable

individuals is significantly more educated, wealthier, less racially diverse, more male, and more liberal than individuals who are not available to reporters for quoting. Second, journalists reinforce some (though not all) of these biases by selecting particular respondents for follow-up interviews.

Moving onto our second hypothesis, there is evidence that reporters discriminate among quotes on the basis of the content of the remarks. In particular, journalists use quotations to support the contention of the article. Recall that quotes were coded for their relation to the headline. If a quote from an individual supported the contention of the article, as summarized by the headline, it was considered supportive. If the quote contradicted the thrust of the headline, it was considered contradictory. Overall, 83% of quotes serve to reinforce a claim about public opinion made in the headline, while 16% contradict it ($p < .01$).¹⁷ This pattern is consistent with Daschmann's (2000) observation that exemplars are used to emphasize particular story themes.¹⁸

In conclusion, Study 1 demonstrated that the people who give follow-up interviews in news stories are distinct from the average poll respondent—i.e., they are racially less diverse, older, and more educated. Additionally, qualitative quotes are used to give meaning to the raw statistical data; they are woven into the narrative structure of news stories and generally support

¹⁷ Corresponding figures for the *USA Today*, *LA Times*, and *Washington Post* are 77%, 82%, and 82%, respectively (See Supplementary Information Table A-2 for complete results).

¹⁸ In terms of ideological direction, there is only a 2 percentage point difference in the prevalence of liberal and conservative quotes, with 18% of quotes coded as liberal and 16% conservative (n.s.). The majority of quotes in the *NYT* were coded as having no ideological direction.

Corresponding data for other newspapers is shown in Table A-2.

the headline. Our second study examines whether the quotes influence people's opinions, apart from the effect we might expect from aggregate polling data.

Study 2: Data and Methods

To probe the persuasive effects of qualitative quotes, we conducted an experiment using student subjects from a large university in the southeastern United States.¹⁹ We hypothesized that qualitative quotes would influence a person's issue opinions (e.g., if qualitative quotes argue in favor of a policy, people who have been exposed to those arguments will be more supportive than those who were not exposed). Such influence is not a foregone conclusion: the quotes, while chosen by journalists for their likely impact, still come from ordinary Americans as opposed to trusted party leaders or experts.

The topic of the experiment was energy policy and the stimuli were modeled after two articles appearing in the *New York Times* on April 27, 2007, one of which referenced a nationwide poll conducted from April 20-24, 2007 (n=1,052) by the *New York Times* and *CBS News*. There were two treatment conditions: one presenting a news story with aggregate polling information and another with aggregate polling information data and qualitative quotes. The quoted remarks featured interviewees giving their opinion regarding a federal gas tax. In the

¹⁹ The experiment (n=982) was approved by the Institutional Review Board at Florida State University (HSC 2008.1713 and 2009.3046). The pencil and paper study took about 15 minutes and subjects received extra credit in their courses for their participation.

control condition, the news story was about tornados in the Midwest and the quotes were from people affected by the storms (stimuli wording is shown in the Supplementary Information).²⁰

Subjects began the study by rating their knowledge on various political issues (e.g., Medicare, the war in Iraq) and pop culture topics. Then they were randomly assigned to read one of the treatment or control versions of the story. The dependent measure was a dichotomous item asking whether the person favored an increased federal tax on gasoline. The question read, “In order to cut down on energy consumption and reduce global warming, would you favor or oppose an increased federal tax on gasoline?” (1=favor and 0=oppose).

Study 2: Experimental Evidence Regarding Qualitative Quotes

The federal tax on gasoline was not popular with subjects, with only 28% of control group subjects expressing support for this policy. The low level of baseline support should pose a difficult test for the influence of qualitative quotes. In the versions of the treatment story that contained aggregate polling data, those figures conveyed bipartisan support for action to address greenhouse gas emissions. The qualitative quotes gave reasons for why it was essential to take action on the environment, and they came from two people, one described as a “Democrat from Kansas City,” and the other a Republican from Minnesota. Both quotes signaled the need for change. The Democrat was critical of past Republican efforts on the environment (e.g., noting that the party had “slashed funds for cleanup of the environment”). The Republican had a

²⁰ A third treatment group consisted only of quotes, but that condition is of less interest since it is rare for journalists to report qualitative quotes in the absence of aggregate poll data. This experiment was part of a larger, unrelated study, and as a result the control group is bigger than the treatment groups (which range in size from 35 to 46).

lengthier quote which contrasted the approaches of two parties (noting, for example, that “the Democrats are more willing to spend dollars on pure research”), but also stressed the importance of increasing the efficiency of the country’s electrical system and automobiles.

In this analysis, we focus on the contrast between the condition providing aggregate polling information and the condition that *combines* polling data with qualitative quotes from Democratic and Republican interviewees (the typical way qualitative quotes appear in news stories). Compared to the control group, supportive polling information had a modest effect on opinion. While 28% supported a gas tax in the control, the corresponding figure for the poll condition was 35% ($p < .16$; one-tailed). However, when the poll figures are combined with qualitative quotes, the support for a gas tax increases to 38% ($p < .10$; one-tailed). In this case, learning about impersonal others was not enough to overcome opposition to a gas tax. The specific rationales offered by quoted respondents worked in conjunction with the aggregate polling figures to produce greater opinion change relative to the control group. While the difference between two treatment conditions is not significant at conventional levels, the experiment provides suggestive evidence regarding the influence of qualitative quotes. Having demonstrated that our results are consistent with past experimental findings on the effect of exemplars (e.g., Daschmann 2000), future researchers may consider other outcomes (e.g., depth of understanding, affective evaluations) or examine the effects of qualitative quotes that challenge/qualify the conclusion implied by aggregate polling data.

Conclusion

For decades, journalists have been using qualitative quotes in news stories about public opinion polls. These follow-up interviews with poll respondents provide opinion cues and

rationales for citizens who encounter new stories about the survey topics. Yet unlike aggregate polling data, which characterizes the views of a broad cross section of people, qualitative quotes come from a small portion of survey respondents. The selection process begins with survey interviewers who identify respondents who are talkative and willing to speak with a reporter about their views. Journalists then draw upon this pool of potential interviewees when identifying people for follow-up interviews. Even though journalists appear to strive for gender and ideological balance when selecting qualitative quotes, the pool of people they choose from is systematically different than the typical respondent (e.g., more likely to be white, educated, and wealthy). This is not to say that qualitative quotes do not serve a useful purpose in the reporting of political events—hearing the views of other people might make an issue more accessible or interesting. But as long as the people chosen to air their views are distinctive, the practice of including qualitative quotes cuts against the original purpose (and egalitarian nature) of random sample polling. An additional, and notable, implication of our findings is the importance of interviewer diversity. Non-white interviewers are more likely than white interviewers to rate black and Hispanic respondents as chatty. Thus, increasing the diversity of survey interviewers is one way to counteract some of the biases reported in Tables 1 and 2.

We have investigated the use of qualitative quotes in the *New York Times* over a 36-year period. Yet our study has several limitations that are important to note. To begin, the key variable, *Chatty*, combines information about two traits: self-reported willingness to speak to a reporter after the survey and talkativeness as assessed by the interviewer. As a result, it is unclear whether the patterns in Table 1 are due to actual differences in rapport with the interviewer versus perceptual bias on the part of the person conducting the interview. A second limitation pertains to our experimental study. We find suggestive evidence that qualitative quotes influence

opinion to a greater degree than aggregate polling information, but further investigation is needed to establish the robustness of that effect.

A third issue concerns the generalizability of our results beyond the *New York Times*. While we have identified examples of *Chatty*-like variables in surveys conducted by Gallup/USA Today/CNN, NBC News/Wall Street Journal, and L.A. Times/Bloomberg, there is variation in how this characteristic is measured across polling organizations. We do not believe such variation undercuts the significance of the findings we report. Journalists surely go through some selection process when choosing respondents for follow-up interviews. Our analyses reveal that there is less diversity in these voices than one might expect given that interviewees are drawn from large national surveys. That said, the practice of including qualitative quotes may change as newspapers partner with polling organizations that administer online surveys. Respondents in those surveys may be reluctant to participate in follow-up interviews offline, necessitating a change in how journalists incorporate exemplars in their news reporting. A related limitation pertains to the single-country focus of our study. There is substantial cross-national variation in media systems (e.g., the degree of commercialization; Aalberg, van Aelst, and Curran 2010), which could affect the incentives for incorporating qualitative quotes in news reporting.

We have shown that the selection of qualitative quotes reinforces many of the biases found in other areas of sourcing. Yet *any* representation of public opinion has limitations. Even when journalists report the overall percentages or trends from opinion polls, the aggregate figures come with their own inadequacies in the form of sampling error, imperfect response rates, and question wording effects. Our study therefore highlights the challenges inherent in depicting public opinion—a task that V.O. Key likened to “coming to grips with the Holy Ghost” (1961, 8). Depending on whether the media focus on aggregates, ordinary people, or activists

mobilized around an issue, different voices are elevated (e.g., McCleod and Hertog 1992; Brookes, Lewis, and Wahl-Jorgensen 2004). Since no representation of public opinion is more genuine or real than another, it is vital for scholars to critically examine the various ways the public will is portrayed in the mass media and how those depictions influence individuals' political preferences.

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Table 1. Determinants of Receiving "Chatty" Designation

	Logit Model			Marginal Effects			Variable Range
	coeff.	(s.e.)		coeff.	(s.e.)		
Education	.20	(.01)	***	.05	(.00)	***	(1-4)
Income	.06	(.00)	***	.01	(.00)	***	(1-5)
Age	.03	(.00)	***	.01	(.00)	***	(18-98)
Age ²	-.0003	(.00)	***	-.0001	(.00)	***	(324-9604)
Black	-.06	(.02)	***	-.01	(.01)	***	(0-1)
Hispanic	-.06	(.03)	*	-.01	(.01)	*	(0-1)
Female	-.24	(.01)	***	-.06	(.00)	***	(0-1)
Democrat	.00	(.01)		.0004	(.00)		(0-1)
Republican	-.06	(.02)	***	-.01	(.00)	***	(0-1)
Liberal	.15	(.02)	***	.03	(.00)	***	(0-1)
Conservative	-.02	(.01)	*	-.01	(.00)	*	(0-1)
Survey from 1990s	-.31	(.08)	***	-.07	(.02)	***	(0-1)
Survey from 2000s	-.66	(.08)	***	-.15	(.02)	***	(0-1)
Survey from 2010s	-.28	(.08)	***	-.06	(.02)	***	(0-1)
Constant	-1.31	(.10)	***				
Number of Cases	261,251						

Note: Cell entries are coefficients and marginal effects from a logit model predicting which respondents receive "chatty" designation. *Chatty* is coded 1 for respondents who are willing and talkative and zero otherwise. The model employs clustered standard errors (in parentheses) for individual surveys (N=207). The models employ sampling weights. The "Variable Range" column records the values each variable can take with one exception; a single survey includes teens age 13 and older, so the age variable lower bound for that survey is 13 (and age squared is 169). Also, since missing values have been imputed to prevent listwise-deletion (King et al. 2001), some imputed observations fall outside the values in the listed range.

* $p < .10$, ** $p < .05$, *** $p < .01$, two-tailed

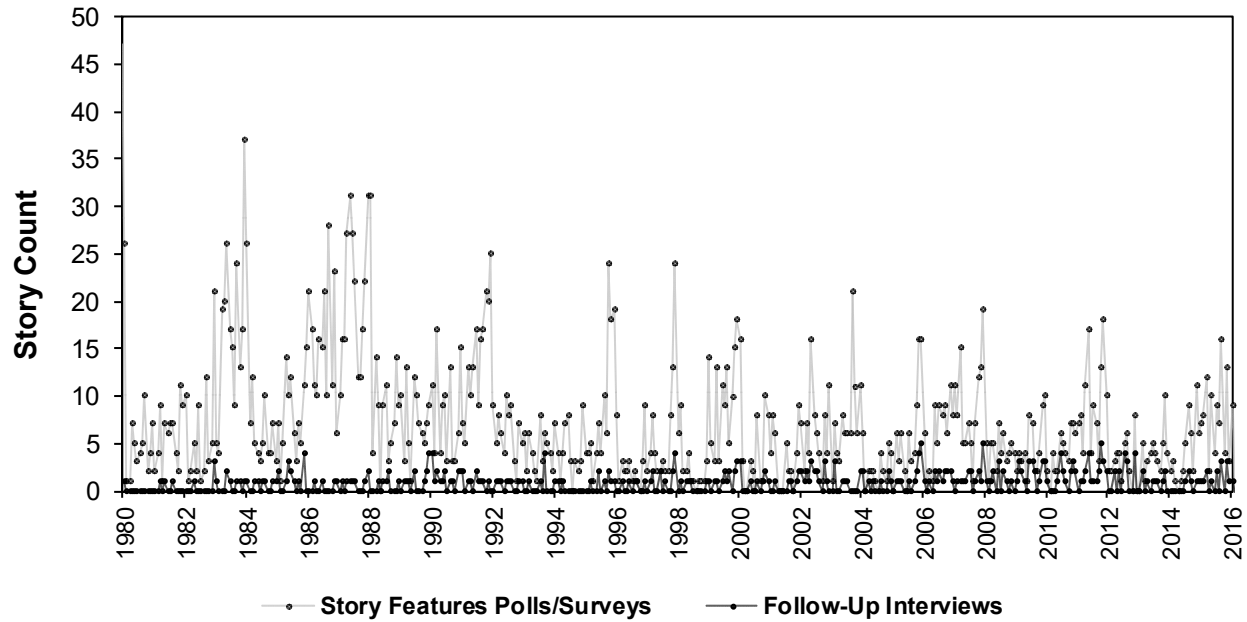
Table 2. Attributes of Quoted and Non-Quoted Respondents

	All Survey Respondents <i>(Column 1)</i>	Interview Pool (i.e., Chatty) <i>(Column 2)</i>	Almost Certainly Quoted in <i>NYT</i> <i>(Column 3)</i>	Bias in <i>Chatty</i> <i>(Col. 2 vs Col. 1)</i>	Bias in Quoted Group <i>(Col. 3 vs Col. 1)</i>
Education	3.00 (.00)	3.18 (.00)	3.23 (.05)	.18 (.00) ***	.23 (.06) ***
Income	3.40 (.00)	3.59 (.01)	3.45 (.08)	.19 (.01) ***	.05 (.08)
Age	50.66 (.05)	50.43 (.08)	53.68 (.94)	-.23 (.10) **	3.02 (1.01) ***
Black	.10 (.00)	.10 (.00)	.06 (.01)	-.01 (.00) *** ^a	-.04 (.02) **
Hispanic	.06 (.00)	.06 (.00)	.04 (.01)	-.01 (.00) *** ^a	-.02 (.01) *
Female	.58 (.00)	.54 (.00)	.57 (.03)	-.04 (.00) ***	-.01 (.03)
Democrat	.36 (.00)	.37 (.00)	.32 (.03)	.01 (.00) ***	-.04 (.03) *
Republican	.29 (.00)	.28 (.00)	.37 (.03)	-.01 (.00) ***	.08 (.03) **
Liberal	.20 (.00)	.23 (.00)	.17 (.02)	.03 (.00) ***	-.03 (.02) *
Conservative	.31 (.00)	.30 (.00)	.32 (.03)	-.01 (.00) ***	.01 (.03)
N	110,532	39,845	282		

Note: Means are significantly different at * $p < .10$; ** $p < .05$; *** $p < .01$ (one-tailed). Standard errors appear in parentheses.

^a Entries in Columns 1 and 2 look identical, but this is due to rounding (i.e., the difference reported in fourth column is statistically significant).

Figure 1.
Articles Featuring Survey Poll Results and Follow-Up Interviews
in the *New York Times*, 1980-2016



Note: The axis labels denote the U.S. national election month of November in each year.