GENDER AND RESPONSE EFFECTS IN A PRE-ELECTION POLL: ILLINOIS 1992

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The 1992 elections culminated with the inauguration of record numbers of newly elected female representatives into the U.S. Congress. This rise in the number of female candidates raises new questions about the role that the interviewer's gender may have on respondents' expressed voting intentions in preelection polls of election contests between male and female candidates.

Early research found that reports of voting behavior in preelection and postelection polls were often exaggerated (Parry and Crossley 1950). More recent research has shown that the race of the interviewer may have a significant effect on expressed voting intentions, political attitudes, and voting behavior (Anderson, Silver, and Abramson 1988; Finkel, Guterbock, and Borg 1991; Hatchett and Schuman 1975). However, there has been little evidence to suggest that the interviewer's gender may affect voting intentions. Hyman et al. (1954) found no gender-of-interviewer effects on responses to questions on voting preferences in presidential elections; Sudman and Bradburn (1974) also found no evidence of gender-of-interviewer effects on political or racial attitudes.

Women's social and political roles have changed considerably since this early research. In this paper we present evidence of gender-of-interviewer effects in a 1992 U.S. senatorial campaign in Illinois. This race was between nonincumbent major-party candidates of opposite genders. As we will show, the registered voters in this telephone poll gave significantly different responses to a key question on voting intention depending on whether the person conducting the interview was male or female.

Prior Research

Interviewer gender can have a significant effect on survey responses when the topic of the study is highly gender-related (Sudman and Bradburn 1974). Hyman et al. (1954) were among the first to present evidence that on some questions respondents tend to tailor their responses "to conform to the opinions or tastes of the sex of the interviewer". The data suggested that people gave more extreme responses when they answered questions from an interviewer of the same gender, and gave more moderate responses to interviewers of the opposite gender.

Later reports of gender-of-interviewer effects have been mixed, and those studies that have reported significant gender-of-interviewer effects suggest that this effect may be an acquiescence effect where the respondent answers in accord with the inferred preference of the interviewer.

Although interviewer gender may produce a response effect independently, several empirical findings suggest that certain interviewer or respondent characteristics may interact with other characteristics. Chief among these other characteristics are the subject of the study and types of questions being asked (Sudman and Bradburn 1974).

Sensitive or threatening questions have been cited as the foremost antecedent of a response effect in surveys (Blair et al. 1977; Bradburn 1983; Bradburn et al. 1978; Sudman and Bradburn 1974). Research has demonstrated that the perceived threat of a topic leads respondents to make socially desirable responses (e.g., Blair et al. 1977; Bradburn et al. 1978) or to acquiesce and/or show deference by providing more amicable and less insulting answers (Groves and Fultz 1985; Hatchett and Schuman 1975, Schuman and Converse 1971).

Whether the respondent acquiesces to the inferred opinion of the interviewer or biases his or her answer toward social desirability is still unclear and may depend upon factors like the subject and the wording of the question. For our present purposes, however, gender-of-interviewer effects have been found to confound gender related survey data and concern over this potential source of error has led some researchers to advocate matching interviewers and respondents on several demographic characteristics (Groves 1989). However, it is often infeasible to a priori match interviewers and respondents in telephone surveys that employ random digit dialing methods. Thus it is important that research continue to identify when and where gender-of-interviewer effects occur.

One of the most often cited conditions under which response effects occur is when the respondent does not have a firm opinion on the issue and the subject of the question is highly related to characteristics of the respondent or the interviewer (Schuman and Presser 1981; Sudman and Bradburn 1974). With regard to preelection polls, Finkel et al. (1991) found a race-of-interviewer effect among white respondents

in a preelection telephone poll conducted during an election contest between two nonincumbent male candidates, a black Democrat and a white Republican. This survey utilized an offered "undecided" response form in which the initially undecided respondents where probed to determine toward which candidate they were leaning. Although the results found no significant race-of-interviewer effect among initially decided white respondents, there was a significant race-of-interviewer effect found among the initially undecided white respondents who were probed for their preference. This race-of-interviewer effect also suggests that respondents may have acquiesced to the inferred preference of the interviewer since the respondents interviewed by a white reported that they were leaning toward the white candidate and respondents interviewed by a black reported that they were leaning toward the black candidate.

Guterbock, Phillips, and Finkel (1992) report similar findings from a pre-U.S. congressional election poll also in Virginia. The structure of this poll was identical to the poll described above, however this election contest was between two white non-incumbent candidates of opposite genders; a female Democratic candidate and a male Republican candidate.

As with the Finkel et al. study there was no statistically significant gender-of-interviewer effect among the initially decided respondents, however the gender-of-interviewer effect among initially undecided respondents who were probed for their preference was significant. The findings in the Guterbock et al. (1992) study suggests that voters who were initially undecided are responding to the interviewer's gender in expressing their voting intention for the male or female candidate. The significant interviewer effect found in both the Finkel et al. and the Guterbock et al. studies suggests an acquiescence bias since voters were more likely to express support for the candidate whose race or gender matched the interviewer's.

The respective race and gender-of-interviewer effects in the Finkel et al. and the Guterbock et al. studies were found in a preelection poll using a quasi-filter response form. Under this format the respondents were asked the initial voting intention question and were offered three response alternatives -- the names of the two candidates and an "undecided" alternative. Undecided respondents were then probed to determine which way they were leaning. The leaning question used a standard response form in which an undecided alternative was not offered. This quasi-filter response form allowed differential analyses of voting intentions of the initially decided and initially undecided voters.

The findings from these two studies raises questions concerning how the response form contributes to interviewer effects. Prior research on response form indicates that the manner of presentation of response alternatives in a structured item will significantly affect the distribution of choices (Schuman and Presser 1981). Not surprisingly, including an "undecided" or "don't know" response leads to a significantly higher percentage of such responses. However, prior research also suggests that interviewer gender has little or no effect on "undecided" and "don't know" responses (Groves and Fultz 1985).

In this paper, we focus upon the effects of interviewer gender on responses to a voting intention question to determine whether gender-of-interviewer effects can be detected in a preelection survey using an standard "forced-choice" response form (without an "undecided" filter), and whether interviewer gender had a significant effect on a volunteered "undecided" response. In this study we use a survey of registered voters conducted during the 1992 U.S. senatorial race in Illinois which was between two nonincumbent major-party candidates of opposite gender. Respondents who were uncertain about their voting intentions needed to volunteer an "undecided" response or express support for one of the two candidates.

Hypotheses

Based on the Finkel et al. (1991) and the Guterbock et al. (1992) findings which indicate that interviewer effects exist only among undecided respondents, we expect to find only a weak gender-of-interviewer effect since the response form used in this study does not permit us to partition respondents by the firmness of their voting intentions. Since the female candidate was the strong front runner in this election and elicited favorable/unfavorable opinions from more than 70 percent of the electorate at the time of the survey, we assume that voters with firm voting intentions for the female candidate will statistically outnumber those with weaker preferences among whom an interviewer effect is most likely to occur.[1] Therefore, we hypothesize that interviewer gender will not be significant in predicting a voting intention for the female candidate. However, we expect to find a weak gender-of-interviewer effect among the voting intentions expressed for the male "underdog" candidate, who elicited favorable/unfavorable responses from less than one-half of the voters. In addition, we expect that this interviewer effect will reflect an acquiescence bias where respondents interviewed by a male have a

greater probability of expressing support for the male candidate than those voters interviewed by a female.

Prior research suggests male and female respondents differ in their likelihood of expressing an "undecided" response (Rapoport 1982, 1985). However, interviewer gender appears not to be related to such responses (Groves and Fultz 1985). Therefore, we expect to find that interviewer gender does not significantly affect volunteered undecided responses to the voting intention question used in this study.

Setting, Data, Method

The November 1992 U.S. senatorial election in Illinois was between two nonincumbent major-party candidates: the Democrat, Carol Moseley-Braun, a black female, and the Republican, Richard Williamson, a white male. Moseley-Braun was the heavy favorite after having defeated the long-term incumbent, a white male, in the Democratic primary. Prior to the election Moseley-Braun was the elected Recorder of Deeds for Cook County, Illinois which includes the City of Chicago. Williamson was a practicing attorney and had served in the Reagan administration.

The Survey Research Office of Sangamon State University conducted a statewide telephone poll between September 9 - 27, 1992. Households throughout the state of Illinois were contacted using a random digit dialing method, and respondents within the households were self-selected: the survey was conducted with the first adult to answer the phone. Interviews averaged 13 minutes in length and callbacks were scheduled whenever possible. Questions on voting intentions for both the presidential election and the senatorial election were placed at about the mid-point of the survey following a series of opinion questions on a variety of public issues, none of which were directly related to the senatorial campaign.

We completed 642 interviews which represents 51.7% of the households within which telephone contact was made with a qualified, competent adult. 61.8% of the 544 registered voters were female, and 38.2% were male. 59% of interviews completed with registered voters were conducted by female interviewers and 41% were completed by male interviewers.

Interviewers for the registered voters included 17 white undergraduate (juniors and seniors) and graduate students, all of whom had been carefully trained as telephone interviewers. No effort was made to match the interviewer's gender with the gender of the respondent. Interviewers stated their first and last names at the beginning of the interview; we assume that respondents were able discern whether the

interviewer was male or female. The average number of interviews completed per interviewer was 31.5. The median was 18, and the range was from 1 to 81. The average number of interviews completed by the eleven female interviewers was 29 and ranged from 1 to 53. The six male interviewers completed an average of 36.2 interviews with a range from 6 to 81.

The senatorial voting intention question was asked of all respondents and followed questions on voting intentions for the U.S. presidential election. However, only the responses of registered voters are included in the analysis that follows. Voting intentions were determined by asking:

If the election for U.S. Senate were held today and you were to vote, who would you vote for -- the Democrat, Carol Moseley-Braun; or the Republican, Richard Williamson?

Results

The results indicate that Moseley-Braun had a strong lead with 59.3% of the registered voters indicating that they intended to vote for her, 16.5% were undecided, and 24.1% indicating that they favored Williamson.

Partitioning by respondents' race and gender revealed a clear race and gender gap with Moseley-Braun receiving stronger support from female and minority voters than from men and whites who voiced stronger support for Williamson.

Multivariate Model

The results of a multivariate logistic regression analysis predicting the probability of a Moseley-Braun voting intention, a Williamson voting intention, and a volunteered "undecided" response are presented in Table 1. The demographic factors that were controlled for in these models include the interviewer's gender, and the respondent's gender, political party identification (three categories from Democrat, Independent, Republican), race (minority or white), age, education (five categories from "less than high school" to "beyond college"), and income (annual household income in ten categories from "less than 15,000" to "more than 75,000").

The results in Table 1 show that interviewer gender was not a significant predictor of an expressed voting intention for Moseley-Braun, but was significant for Williamson. Although logistic regression models are not linear, it is possible to illustrate the gender-of-interviewer effect in this study by showing the predicted probabilities of voter support for each candidate among "average" male and female respondents who are interviewed by male and female interviewers (cf. Aldrich and Nelson 1984). "Average"

respondents are those who are at the mean of all other independent variables.

The results of these calculations are presented on the bottom of Table 1. The results of the Moseley-Braun calculations only indicate a voter gender gap since "average" female respondents had about an equal estimated probability of expressing a voting intention for Moseley-Braun regardless of the interviewer's gender (.62 for female and .64 for male interviewers). "Average" male respondents also had about an equal estimated probability of supporting Moseley-Braun to interviewers of both genders (.53 for female and .55 for male interviewers).

The significance of interviewer gender in the Williamson model results in a much wider gap between voters interviewed by males and those interviewed by females. The estimated probability that an "average" female respondent will express support for Williamson when interviewed by a male is .07 greater than when interviewed by a female, and the estimated probability that the "average" male respondent would voice support for Williamson when interviewed by a female interviewer is .11 less than when interviewed by a male.

The findings from both the Moseley-Braun and the Williamson models support our initial hypothesis that a significant gender-of-interviewer effect would not be found among the expressed voting intentions for Moseley-Braun, but would be found among support expressed for Williamson. As expected, the gender-of-interviewer effect found in the Williamson model suggests an acquiescence bias since voters interviewed by a male candidate had a greater estimated probability of expressing support for the male candidate than when interviewed by a female.

Contrary to our second hypothesis, however, interviewer gender was also significant in the model predicting a volunteered "undecided" response. We found that both male and female respondents are more likely to volunteer an "undecided" response to a female interviewer than to a male interviewer. The estimated probability that an "average" female respondent will volunteer an "undecided" response to a female interviewer is .10 greater than for male interviewers. Similarly, the estimated probability that the "average" male respondent will volunteer an "undecided" response to a female interviewer is .08 greater than for male interviewers.

Multilevel Model

Since respondents are nested within interviewers, who are nested within their gender, the data structure used in this analysis is hierarchical. This occurs when respondents are not randomly assigned to interviewers

(Groves 1989). The hierarchical structure of the data may introduce additional uncertainty into the original model if responses given by respondents who are interviewed by the same interviewer are more similar than those given by respondents interviewed by different interviewers. (cf. Hox, de Leeuw, and Kreft 1991). To ensure that the results from the first analysis are not due to a particular group of respondents among whom gender-of-interviewer effects are greatest, we developed multilevel logistic regression models by introducing interaction terms between interviewer gender and each of the other independent variables in the original models.

Only one interaction, between interviewer gender and respondent education, in the Williamson model was significant ($p = .05$). This interaction suggests that less educated respondents who were interviewed by males were the most likely to voice support for Williamson, and conversely, less educated respondents who were interviewed by females were the least likely to express support for Williamson. This finding is consistent with prior research which suggests that the greatest response effects are found among respondents with lower education levels (Sudman and Bradburn 1974).

Discussion and Conclusions

The findings from this study build on earlier work by reporting a significant gender-of-interviewer effect on the expressed voter preferences for the male candidate in a preelection poll using a standard response form. We found no significant effect of interviewer gender on the expressed voting intentions for the female candidate. This is consistent with earlier research which indicates that interviewer effects exist only among respondents who are undecided or who have weakly-held preferences. At the time of the survey, the female candidate in this election was far more well-known and elicited far more favorable/unfavorable opinions than did the male candidate. Our analysis also found that a significant interaction between interviewer gender and respondent education existed in the multilevel model predicting a voting intention for the male candidate, suggesting that the gender-of-interviewer effect was greatest among respondents with lower education levels.

More interestingly, however, is the significant main effect of interviewer gender on the probability of a volunteered undecided response. In this study, both minority and white, male and female, respondents were more likely to volunteer an "undecided" response to a female interviewer than they were to a male

interviewer. This finding raises additional methodological questions concerning gender-of-interviewer effects in preelection polls using different response forms.

Given the significant main effects for interviewer gender in the multivariate models for Williamson and for offering an "undecided" response, it seems that undecided respondents and those respondents with weaker preferences are volunteering an "undecided" response to the female interviewers, but are choosing a substantive alternative (biased toward the male candidate) when male interviewers ask the voting intention question.

Responses to survey questions that include an undecided alternative differ considerably from the responses to the same survey questions that do not offer an "undecided" response (Schuman and Presser 1981). However, it has been assumed that the error in responses from individuals with less firm preferences would balance out, and that the benefits of "forcing" a respondent to give a substantive alternative outweighed the potential costs. The findings from this study, however, suggests that male and female interviewers elicit different responses to a voting intention question using a standard response form. At minimum, then, our findings should serve as a further warning to election pollsters that under certain contextual conditions such biases exist, and alert them to the possible importance of gender in elections.

Given that the interviewing staffs in most field polling agencies are predominantly female, our recommendation is that, in electoral races between male and female candidates, pollsters use an offered "undecided" response form. This recommendation would appear to be particularly appropriate in races where there is a substantial difference in voter familiarity with the two candidates. In this study, one candidate was the heavy favorite. In closer races an increase in undecided respondents could seriously confound predictions of election outcome. Additional empirical research is needed to gain a better understanding of the specific conditions under which gender-of-interviewer effects occur in preelection surveys.

Endnotes

[1]*The Chicago Tribune* poll of August 22-24 reported that Moseley-Braun drew either favorable (52%) or unfavorable (19%) responses from 72% of those polled while Williamson drew either favorable (12%) or unfavorable (16%) opinions from 28%. The poll also found that name recognition for Moseley-Braun was about 90% while that for Williamson was 50%.

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Table 1. Logistic Regression Model Predicting Response for Moseley-Braun, Undecided, and Williamson

Variable	Moseley-Braun Model		Undecided Model		Williamson Model	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Interviewer Gender (0=female, 1=male)	.093	.251	-.918**	.334	.598*	.284
Respondent Gender (0=female, 1=male)	-.366	.251	-.305	.317	.690**	.281
Party Identification	-1.281**	.140	.369*	.169	1.344**	.171
Race (0=minority, 1=white)	-1.035**	.364	.589	.480	1.396**	.536
Age	-.004	.008	-.007	.009	.014	.009
Education	.262*	.117	-.267†	.147	-.124	.132
Income	-.071*	.046	.050	.057	.089†	.054
Constant	3.461**	.614	-1.830**	.745	-6.543**	.881
Percent Correctly Classified	75.43		86.13		78.59	
Mean of Dependent Variable	.568		.158		.231	
G^2 Goodness of Fit (df = 403)	418.816		308.961**		333.204**	
Predicted probability of response for:						
Male Respondent/Female Interviewer	.53		.14		.18	
Male Respondent/Male Interviewer	.55		.06		.29	
Female Respondent/Female Interviewer	.62		.18		.10	
Female Respondent/Male Interviewer	.64		.08		.17	
N	411		411		411	

**Significant at .01 level
*Significant at .05 level
†Significant at .10 level