

## BIAS IN TELEPHONE SURVEYS OF AFRICAN AMERICANS: THE IMPACT OF PERCEIVED RACE OF INTERVIEWER ON RESPONSES

Monica L. Wolford, Ronald E. Brown, Anne Marsden, James S. Jackson, Chase Harrison  
Monica L. Wolford, #5110 Institute for Social Research, Ann Arbor, MI 48106-1248

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This paper examines the influence that key issues facing African-Americans have on their patterns of response based on the perceived ethnicity of the interviewer. Of greatest interest is how the perception of the race of the interviewer affects how black Americans respond to questions dealing with racial integration and black political and economic nationalism.

The influence that race of interviewer can have on responses for both blacks and whites has been documented over a considerable span of time. Hyman, Cobb, Feldman, Hart and Stember (1954) first reported strong differences between the responses black respondents gave to white interviewers versus those given to black interviewers in a 1942 National Opinion Research Center (NORC) study conducted in Memphis. However, similar questions asked of blacks in New York at about the same time showed weaker but though still clear effects for race of interviewer. In the 1968 Detroit Area Study, Schuman and Converse (1971) found race-of-interviewer effects among black respondents on items dealing with militant protest and hostility toward whites. Schuman and Hatchett (1974) report similar results for the Detroit Area Study using an index measuring alienation as well as items about government and patriotic institutions. Campbell (1981) also found a race-of-interviewer effect influencing items among high-school seniors in the Atlanta area in 1974. Although these studies typically had sample sizes sufficient to test the significance of differences at relatively fine levels, they only sampled local populations.

Anderson, Silver, and Abramson (1988a; 1988b) extended this research on race-of-interviewer effects to national samples using the National Election Studies from 1964, 1976, 1978, 1980, 1982 and 1986. They found a race-of-interviewer effect among black respondents on items relating to civic attitudes, electoral participation, and race-related attitudes. In an analysis of the NORC General Social Survey (GSS) from 1972 through 1977, Schaeffer (1980) found race of interviewer effects on racial topics among both white and black respondents. In these national studies, however, the number of black respondents involved in any analysis was rather small.

Based on these findings, many surveys have

attempted to gain unbiased racial attitudes by employing black interviewing staffs for face to face interviews with black respondents. The Los Angeles Riot study of 1965 (Caplan and Paige, 1968), the Racial Attitudes in Fifteen American Cities project in 1968 (Campbell and Schuman), and the 1967 Detroit Area Study (Schuman and Converse, 1971) all employed black interviewers to interview black respondents. However, since this time, telephone studies have de-emphasized matching the race of respondents. For example, while the 1972 National Election study contained a number of questions regarding integration and black nationalist or black power strategies, the interviewing staff was composed of both blacks and nonblacks. Further, neither the National Black Election Telephone Panel Study (1984, 1988), nor the second through fourth waves of telephone interviews of the National Panel Survey of Black Americans used an all black interviewing staff. Since survey research has come to increasingly rely on telephone surveys, a few recent studies have examined whether a race-of-interviewer effect is present during telephone interviews. In analysis of a telephone survey conducted in Alabama, Cotter, Cohen, and Coulter (1982) found race-of-interviewer effects present for white respondents, and on a limited set of items among blacks. In a 1987 New York Times poll of New York area residents concerning the racially motivated Howard Beach attack, black respondents gave significantly different answers depending on interviewer race when asked about the behavior of a lawyer representing one of the victims (Meislin 1987). In analysis of a pre-election poll taken during the 1989 Virginia gubernatorial race between Douglas Wilder and Marshall Coleman, Finkel, Guterbock and Borg (1991) found that white respondents tended to overstate their support for the black candidate, Wilder, when speaking to black interviewers. All of these studies, however, suffer from the limitations of focusing on both local issues and local populations and had small sample sizes for African-Americans.

The data used here are drawn from the 1993 National Black Politics Study, a multiple frame telephone survey of 1206 African Americans 18 years of age or older. The first frame was composed of a national Random Digit Dial sample generated from the GENESYS system using an equal probability of selection methodology. The second frame was randomly sampled

from a list of households located in census blocks with 50% or more black households. The two sample frames were compared for overlap and disproportionate weights were considered unnecessary. Demographic weights were used to insure the projectability of the data to the study population. The overall response rate was 65% and interviewing was conducted between November 22, 1993 and February 15, 1994 by Market Strategies, Inc., under contract to the principal investigators. The second set of data presented is from the National Black Election Study 1984 pre-election and post-election questionnaires (Jackson, 1984).

One difficulty faced by earlier telephone studies is that they all based their analyses on comparisons of responses across the actual race of the interviewer. Though there should be little variance between the actual race of an interviewer and the perceived race of the interviewer in a face-to-face survey, this premise may be less secure when looking at telephone interviews. Although respondents may use verbal inflections and speech patterns to develop a belief about the race of the interviewer at the other end of the telephone, the accuracy of this guess for any given set of respondents or interviewers is unknown. In an attempt to gather unbiased data the 1992 National Black Politics telephone study employed all black interviewers. However, to measure the bias that could be associated with perceived race of interviewer, all respondents were asked to guess the race of the interviewer at the end of the questionnaire. Even a small level of variance between the actual race of an interviewer and the perceived race of the interviewer would diminish any race-of-interviewer effect that might be present if analysis is performed on actual race of interviewer as opposed to perceived race of interviewer. We have sought to reduce or eliminate this variance by using the race the respondent thought the interviewer to be, as opposed to the actual race of the interviewer, for these analyses.

The final question in the interview was whether respondents could tell, just from listening to the interviewer's voice over the telephone, whether the interviewer was white, black or someone of another ethnic group. Though all interviewers were black, 15.9% of the respondents thought that the interviewer was white, 2.9% thought the interviewer was from another group, 6.8% couldn't tell the perceived race, 1.3% refused to answer the question and 73.1% correctly identified the interviewer as black. The same question was asked at the end of the 1984 pre-election questionnaire which used both black and white interviewers. Respondents correctly identified the interviewer's race only 73.5% of the time. This is highly consistent with results Meislin (1987) reports for the Howard Beach survey. Respondents correctly identified the race of interviewers of the same

race as themselves only "about three-quarters of the time". Bivariate and multivariate analyses were conducted to assess what respondent characteristics might be associated with their perception of the interviewer's race and whether or not this misclassification resulted in biased data.

A two stage process was used to develop a model to predict respondent characteristics associated with this misclassification. Bivariate measures for all respondent characteristics covered on the survey were tested for their relationship with perceived race of interviewer at the first stage. Variables that were found to have influence at the first stage were tested using regression controlling for multiple influences and collinearity.

In the initial phase chi-square tests were performed to examine the effects of respondent gender, marital status, occupation, urbanicity, work status, membership in a labor union, and whether the respondent was the household breadwinner. Comparisons were made between the respondents who perceived the race of the interviewer to be black and all others. No significant effect was found for gender, labor union membership, or whether the respondent was the principle breadwinner. All other variables were found to be significant at least at  $p < .01$ .

To ascertain whether those variables with multiple categories were significant, one-way ANOVA's were used. Again, perceived race of interviewer was treated as a two-level variable. Occupation was compared across four categories: crafts people and operatives, professional and technical, service, sales and clerical, and managerial. Military personnel and farmers were excluded from these analyses because of their small numbers. Status in the work force was compared across eight categories: unemployed, retired, homemaker, permanently disabled, temporarily laid off, working full time, working part time and student. Marital status was compared across five categories: married, widowed, divorced, never married, and significant other.

Respondents in sales and clerical jobs and managers were found to be significantly more likely to correctly deduce that the interviewer was black than all other groups. The unemployed, retired and homemakers were less likely to choose the correct race of the interviewer than other employment categories. No significant differences were found between marital statuses. These six variables were entered into a multiple regression analysis. Occupation was collapsed to compare respondents in managerial, sales and clerical occupations against all others. The unemployed, retired and homemakers were compared against all other work force status. Age, years of education, income, urbanicity were entered as continuous variables.

The results show that respondent demographic

characteristics account for only a small percentage of the variance in whether the interviewer was perceived to be black or not. Taken together these variables account for only 3% of the overall variance. The variable that exhibited the largest effect on correctly identifying the race of the interviewer was whether or not the respondent was in the work force. Whether the respondent worked in sales or a managerial occupation significantly increased the proportion of respondents who thought they were being interviewed by a black interviewer. The urbanicity of the respondents location also showed a significant positive effect on the identification of the interviewer.

**Table 1.**

<b>Respondent Characteristics Predicting Correct Identification of Interviewer's Race</b>		
<b>Respondent Demographics</b>	<b>Beta</b>	<b>Logistic B</b>
Education	0.04	0.03
Level of Urbanicity	0.08 **	0.13 *
Managerial/Sales/Clerical Occupation	0.08 ***	0.59 ***
Unemployed/Retired/Homemaker	-0.10 ***	-0.51 ***
Age of Respondent	-0.03	0.00
Household Income	-0.03	-0.16

\*=p<.1; \*\*=p<.05; \*\*\*=p<.01

That the employment and work force factors have the largest and most consistent impact suggests that the level of social interaction within work or organizational settings increases the ability to correctly perceive the race of the telephone interviewer. Those respondents who were the most removed from the type of social interaction that is typically found in the workplace and educational organizations were less likely to think the person interviewing them was black. Sales and managerial occupations typically require relatively detailed interaction with other individuals, and being in such an occupation was a strong influence on whether an individual thought that the person interviewing them was black. These results are presented in Table 1. While these demographic analyses have shown that certain respondents do a better job at perceiving the race of the interviewer, these next analyses will show how this perception of the interviewer's race affects the answers that respondents give.

Items subject to race-of-interviewer effects for black respondents can be partitioned into three separate but related groups. The first set of items are those that are subject to what Campbell (1981) refers to as a general deference phenomena and what Schuman and Converse (1971) describe as the difficulty of saying negative things about the group to which the interviewer belongs. The second set of items center on issues regarding the opportunity structures for black Americans such as the

need for affirmative action and the effectiveness of efforts at integration. The final grouping of items are those focusing on issues involving black autonomy, black nationalism or separatism. Items included in this study which address these three topics are as follows:

**General Deference**

Overall ratings for whites in general, for Bill Clinton as president, and Ross Perot

Whites want to see blacks get a better break

**Hopefulness About Integration Efforts**

Agree with the preferential hiring and promotion of blacks

White elected officials represent the interests of black constituents

American society hasn't dealt fairly with blacks

American society is fair to everyone

Big corporations are a source of growth that benefits blacks

Legal system treats all groups fairly

**Black Autonomy**

Blacks should form their own political party

Blacks should participate in black-only organizations

Blacks should always vote for black candidates

Blacks should shop in black only stores

Black children should study an African language

Blacks should govern mostly black communities

Blacks should rely on themselves and not others

Blacks should have their own separate nation

Successful blacks are doing a lot to help poor blacks

Louis Farrakhan represents a positive viewpoint

Multivariate regressions were run on these 25 questions tapping the three dimensions and are presented in Table 2. The betas for the dummy variable "perceived race of interviewer as black", the three respondent demographic variables that were shown to be predictors of perceived race and a dummy variable for the gender of the interviewer are shown.

Of the 25 variables included in the regression equations only six were not significant at the .05 level. The results range over a variety of response formats showing a robust impact of perceived race of interviewer on the expressed attitudes of black respondents. While there are several demographic predictors, especially those that appear to be related to levels of socialization and interaction, our results lead us to believe that respondents are picking up on something early in the interview that leads them to a conclusion about the race of the interviewer.

The results for the items invoking a general deference toward the interviewer's racial group replicate and extend the findings of earlier studies. Black respondents report feeling much warmer towards whites when they believe the interviewer is white. In addition,

**Table 2.**

Regressions for Perceived Race-of-Interviewer Effects - 1993 National Black Politics Study					
Dependent Variables	sales manager clerical	unemployed homemaker retired	urbanicity	Interviewer gender	Black Interviewer
<b>General deference related items</b>					
Feeling thermometer - whites	.00	.03	.00	.04	-.22 ***
Feeling thermometer - Clinton	-.09 ***	.01	.03	.03	-.15 ***
Feeling thermometer - Ross Perot	-.03	-.04	-.01	.00	-.09 **
Approve of Clinton's job as president	-.03	.02	.03	.02	-.09 **
Whites want blacks to get a better break	.02	.14 ***	.09 ***	.08 **	-.13 ***
<b>Hopefulness about integration related items</b>					
Agree with affirmative action	.04	.00	-.07 **	.03	-.07 **
Big corporations benefit blacks	-.01	.04	-.01	.01	-.10 ***
Legal system treats all groups fairly	.04	.11 ***	.00	-.01	-.14 ***
American society fair to everyone	.01	.05	.00	.00	-.18 ***
Whites can represent black constituents	.02	.06 **	.01	-.02	-.14 ***
America provided blacks fair opportunity	.01	.06 **	-.01	-.05 *	-.07 *
Grateful for opportunities for blacks	.02	.07 **	-.03	-.02	-.08 **
America has NOT dealt fairly with blacks	.04	.04	-.03	.02	-.05
<b>Black autonomy related items</b>					
Support black party	.05 *	-.09 ***	.00	.00	.08 **
Should be in black-only organization	.01	-.04	.01	-.06 *	.15 ***
Vote for black candidates	-.03	.00	-.01	-.08 ***	.03
Shop in black stores	.03	-.02	.06 **	.01	.15 ***
Study African language	.00	-.04	.01	.01	.09 **
Govern mostly black communities	-.01	-.12 ***	.02	.01	.10 ***
Control black economies	.02	-.10 ***	.06 **	.00	.05
Blacks should rely on selves	.00	-.06 **	.02	.04	.07 *
Separate nation	-.01	-.03	-.01	-.04	.05
Successful blacks helping poor blacks	.02	.07 **	-.06 *	-.05	-.11 ***
Farrakhan positive viewpoint	.02	-.05 *	.06 **	.06 **	.08 **
Feeling thermometer - Farrakhan	.01	-.03	.04	-.03	.08 **
* = p < .1, ** = p < .05, *** = p < .01					

they also show more warmth toward prominent white public figures. The rating of Clinton as president and even his "feeling thermometer" rating may be similar phenomena as the increase in patriotism reported by Schuman and Hatchett (1974), The increase in warmth towards Ross Perot however, indicates that the influence of deference in the interviewer respondent interaction is broader than previously supposed.

The results for the integration related attitude items show small but consistent effects of the perceived race of the interviewer on the respondents' answers. Only two items did not show the expected magnitude of race-of-interviewer effects. These are "American society just

hasn't dealt fairly with black people" which showed no effect and "American society has provided black people a fair opportunity to get ahead in life" which had a correlation in the expected direction, but which was only significant at the .10 level. The variance accounted for by the perceived race of the interviewer ranged from .03 percent to 4 percent. These results then seem to be small but robust, impacting variables with as few as three response categories and variables with as many as one-hundred.

The results for black autonomy related attitudes are similar, but somewhat weaker. Four of these twelve items were not significantly effected by the perceived race of

**Table 3.**

Regressions for Perceived and Actual Race-of-Interviewer Effects - 1984 National Black Election Study					
Dependent Variables	R's Gender	Urbanicity	Education	Interviewer gender	Black Interviewer
<b>General deference related items</b>					
Too little influence - whites	.00	-.01	-.17 ***	.01	-.20 ***
Feeling thermometer - Reagan	-.14 ***	-.05 *	-.02	-.01	-.16 ***
Feeling thermometer - Mondale	.05	-.01	-.09 ***	-.02	-.07 **
Feeling thermometer - Ferraro	.07 **	.02	-.01	-.02	-.12 ***
Approve of Reagan's job as president	-.12	-.08 ***	-.04	.02	-.09 **
Whites want blacks to get a better break	-.02	.08 **	-.03	-.01	-.16 ***
<b>Hopefulness about integration related items</b>					
Reagan - gov't should help minorities	.05	-.02	-.12 ***	-.06 *	-.16 ***
Mondale - gov't should help minorities	.00	.04	-.02	.05	.04
Discrimination no longer a problem	-.03	-.11 ***	-.25 ***	.02	-.13 ***
Progress made against discrimination	-.02	-.04	-.02	.04	-.10 **
<b>Black autonomy related items</b>					
Support black party	.02	-.08 **	-.17 ***	.04	.07 **
Vote for black candidates	.07 *	-.10 ***	-.18 ***	.07 *	.00
Shop in black stores	-.02	-.04	.11 ***	.04	.05
Study African language	-.01	-.08 **	-.05	.10 **	.05
Successful blacks helping poor blacks	.00	-.11 ***	-.08 **	.01	-.17 ***
*= $p < .1$ , **= $p < .05$ , ***= $p < .01$					

the interviewer. These are "Blacks should always vote for black candidates when they run", "Blacks should have control over the economy in mostly black communities", "Black people should have their own separate nation" all of which showed no impact for perceived race of interviewer, and "Black people should rely on themselves and not others" which showed an effect in the expected direction, but only at the .1 level. The adjusted r-squares for the remaining items using only perceived race of interviewer as a predictor ranged from .04 percent to 1.5 percent. Again these results range over a variety of response formats, showing a robust if small impact of perceived race of interviewer on the expressed attitudes of black respondents towards black autonomy.

The 1984 National Black Election Study used many items similar to those used in the National Black Politics Study and offers us the chance to examine these three dynamics in a very different political setting approximately nine years earlier. The betas for the similar and matching items in the NBES are presented in Table 3. The general deference related items show strong effects very similar to those found in the NBPS. This is the case even though rather than using a feeling thermometer for whites NBES asks whether whites as a group have too little influence, the president rated is Reagan not Clinton, and the white candidates are

Democrats.

The NBES included fewer items related to the respondent's hopefulness about the success of integration efforts. The respondent's rating of how much then president Reagan supported affirmative action showed race-of-interviewer effects, but, interestingly, the rating of Walter Mondale's support did not. Respondents were more likely to say progress had been made against discrimination and that such discrimination was no longer a problem when they were speaking to a white interviewer (perceived race of interviewer was not available for these four items). NBES used five of the black autonomy related items included in the NBPS. Of these, support for black party, voting for black candidates, and the level of help that successful blacks are giving poor blacks replicated the findings from the NBPS. Support for shopping in black stores and studying African languages showed no effect for race of interviewer in the 1984 post-election survey. This may be due however, to the lack of a measure of perceived race of the interviewer in the post-election questionnaire, making the analyses much less sensitive.

Our results lead us to conclude that perceived race of interviewer has pervasive and robust effects on general ratings of white Americans, respondent's hopefulness regarding integration and black autonomy related

attitudes. We believe that the impact of perceived race of interviewer on these last two categories of items is due to an ambivalence in the black community regarding the effectiveness of these two as strategies to advance racial equality. As a result, respondents are likely to be influenced in the expression of their preferences by the perceived race of the interviewer.

While face to face interviews provide extensive if not definitive clues to the respondent about the interviewer's race, telephone interviews can lead to a misperception of race. This is particularly the case when the sample includes diverse occupational groups and both rural and urban respondents. Hence research using telephone based interviews must include the means to compensate for the respondents perception of the interviewer's race.

This study has shown that the effects of the perceived race of interviewer demonstrated in earlier studies operate in a telephone setting in a large national sample of African Americans. Additionally, it has been demonstrated here, as in Robinson and Rohde's (1946) study of anti-Semitism that it is the perception of the interviewer's ethnicity that is of singular importance to race-of-interviewer effects. Hence, Schaeffer's (1980) concern that the effect might be driven by the discomfort of the interviewer in asking "threatening questions in cross race interviews" can be laid to rest. This is particularly true since the perceived race of the interviewer affects the first attitudinal question asked in the NBPS. We were also able to confirm in these analyses that interviewer gender does not reduce the impact of the race-of-interviewer effect.

The breadth of the effect has also been shown to be much broader than generally depicted. It extends beyond the explicit mention of race to the expression of political attitudes and evaluations of people and institutions prominent in modern American culture.

The resiliency and breadth of the race-of-interviewer effect as well as the difficulty in establishing a direction for the possible bias it introduces all combine to highlight the need for the inclusion of a measure of perceived race and its use in analyses.

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