

The Effects of a Photograph on Mail Survey Response

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This study examined the effects that a photograph of a physically attractive researcher on the cover letter had on responses to a mail survey (response rate, response speed, item omission and sample bias). The results to this experiment indicate that the photograph of a physically attractive researcher can dramatically increase a mail survey's response rate without creating a biased sample. The photograph, however, did not reduce the item omission rate and it hindered the speed of response. A partial explanation of why it failed in these latter areas comes from a re-examination of the cover letter. Although the cover letter stresses the importance of a reply, it does not state that a quick or complete response would be appreciated. Consequently, the survey subjects may not have understood that quick and complete responses were forms of helpful behaviour. Since returning the questionnaire was the only form of helpful behaviour stressed in the cover letter, it was the only area in which the treatment group should be expected to outperform the control group.

Keywords: mail survey, response rates, cover letter, photograph

Introduction

Although the mail survey is one of the most popular and cost efficient interviewing techniques it is often plagued by low response rates. The percentage of persons responding to an initial mailing of a questionnaire is often less than 50% and can easily be as low as 20% or less (Kanuk & Berenson 1975; Linsky 1975; Yu & Cooper 1983; Fox, Crask & Kim 1988). When survey researchers are confronted by low response rates they must question the representativeness of their survey results.

To avoid low response rates survey takers are continually searching for techniques that will enhance response rates without jeopardizing response quality. Reviews of the mail survey literature indicate that three techniques have consistently increased response rates to mail surveys namely prepaid monetary incentives follow-up procedures and prenotification techniques (Kanuk & Berenson 1975; Linsky 1975; Harvey 1987; Fox Crask & Kim 1988). Unfortunately each of these techniques can significantly add to the total expense of a mail survey and thereby negate its cost advantage. The purpose of the present study is to investigate the effectiveness of a response inducing technique that does not significantly increase the cost of the survey; that is the use of a photograph of a physically attractive researcher on the cover letter.

Numerous researchers have investigated the relationship between a person's physical attractiveness and the amount of helping behaviour s/he receives. While not all of these studies have shown that the physically attractive are more likely to have their requests for assistance fulfilled (Juni & Roth 1981; Wilson & Dovidio 1985; Juhnke et al. 1987) the majority have demonstrated that a positive relationship exists (Snyder & Rothbart 1971; Horai Naccari & Fatoullah 1974; Landy & Sigall 1974; Dion & Stein 1978; Chaiken 1979; Patzer 1983; Debevec Madden & Kernan 1986; Petrosius & Crocker 1989;).

Benson Karabenick & Lerner (1976) placed the photograph of either an attractive or unattractive model on a college application that appeared to be lost and required mailing.

They found that the application was more likely to be mailed for the applicant if the attached photograph was of the attractive model. Other studies have demonstrated that the physically attractive are more likely than their unattractive counterparts to obtain a loan (Byrne Baskett & Hodges 1971) to get a donation for a tetanus shot (West & Brown 1975) to get directions (Harrell 1978; Wilson 1978) to get a letter mailed (Wilson 1978) to get help on an experiment (Mims Hartnett & Nay 1975) to get help with a malfunctioning car (Athanasidou & Greene 1973) and to receive assistance after having fallen in a New York City subway (Piliavin & Piliavin 1975). Thus one might expect that a photograph of a physically attractive researcher on the cover letter would have a positive effect on responses to a mail survey.

Hypotheses

Since members of the treatment group are receiving a photograph of a physically attractive researcher they should be more likely than members of the control group to provide help to the researcher. In a mail survey helping behaviour can take several forms, namely responding to the survey, responding quickly, and responding completely. Thus, the following research hypotheses are examined:

H₁: The response rate to the survey will be higher for the treatment group than for the control group.

H₂: The average number of days to respond to the survey will be lower (i.e. faster) for the treatment group than for the control group.

H₃: The average item omission rate will be lower for the treatment group than for the control group.

Method

Sample and Procedure

A systematic random sampling procedure was used to select 150 names and addresses from a Los Angeles telephone directory - Pacific Bell's Northwestern Area edition. Subjects were randomly assigned to either the treatment or control condition. The treatment group received the cover letter with a picture of a twenty year old female researcher photocopied in black and white on the lower left side of the page. The picture was roughly two and a half inches square (see Appendix A). The control group received the same cover letter without the picture.

Instrument

The survey used a four-page forty-item questionnaire covering attitudes towards music censorship and the use of warning stickers on record albums. A brief cover letter was used that explained the purpose of the survey, emphasized the importance of a response, mentioned the survey was being conducted by a college student, promised responses to the survey would be confidential, and expressed appreciation for the letter recipient's help (see Appendix A).

Stimulus Check

To determine how subjects might evaluate the picture, nineteen male judges and twenty-five female judges were recruited to rate the picture on two ten-point semantic differential scales: one scale rated the pictured person on physical attractiveness while the other rated her on sex appeal. Three other pictures of females were also rated by the judges to prevent them from being overly concerned about the picture used in this survey. The female pictured in this survey received an average rating of 7.6 on physical attractiveness ($SD = 1.5$) and 8.4 on sex appeal ($SD = 1.6$). There were no significant differences on the ratings between male and female judges.

Dependent Variables Four dependent variables were analyzed.

1. **Response rate** is defined as the number of usable questionnaires returned divided by the number of questionnaires mailed out. A questionnaire was considered usable only if it was at least 75% complete and was received within three weeks of the mailing date.
2. **Response speed** is defined as the number of days elapsing between the mailing date of the questionnaire and the date of receipt of the completed questionnaire.
3. An **item omission** is defined as an unanswered question. Item omissions were counted only for the twenty-one questions that should have been answered by all respondents.
4. **Sample bias** was measured by comparing the respondents from the control and treatment groups on the demographic variables, namely sex, age, marital status, ethnic background, religious preference, income level and educational background.

Results

The results are displayed in Table 1. The treatment group produced a response rate that more than doubled that of the control group (40% vs. 19%). Thus, H_1 was supported. No support, however, was found for either H_2 or H_3 . There was a significant difference in response speed between the two groups, but not in the predicted direction: the treatment group generated a slower average speed of response than the control group (8.5 days vs. 5.9 days). No significant differences were found between the treatment and control groups on the item omission rate or sample bias.

Discussion

The results to this experiment indicate that the photograph of a physically attractive researcher can dramatically increase a mail survey's response rate without creating a biased sample. The photograph, however, did not reduce the item omission rate and it hindered the speed of response. A partial explanation of why it failed in these latter areas comes from a re-examination of the cover letter. Although the cover letter stresses the importance of a reply, it does not state that a quick or complete response would be appreciated. Consequently, the survey subjects may not have understood that quick and complete responses were forms of helpful behaviour. Since returning the questionnaire was the only form of helpful behaviour

Table 1. Experimental Results

Dependent Statistic	Variable	Treatment Group (n=75)	Control Group (n=75)	Test
Response Rate		40%	19%	$X^2(1)=7.24^1$
Response Speed (Mean no. of days)		8.5	5.9	$t(42)=2.46^2$
Mean number of Item omissions ³		.87	.93	$t(42)=.84$

Notes:

1. $p < .05$

2. $p < .01$

3. This analysis is based upon 21 items that applied to all respondents.

stressed in the cover letter, it was the only area in which the treatment group should be expected to outperform the control group.

Researchers who wish to use a photograph in the cover letter should realize that there are limitations to implementing the technique. How, for example, should an unattractive survey researcher apply the technique? One possibility might be to alter the researcher's appearance - possibly by make-up and/or appropriate attire - to make this person look as attractive as possible. Before using the photograph of this made-up researcher, it would be wise to pretest it on a sample of the target audience to see if it produces the desired effects.

An unattractive researcher could also implement the photograph technique by having the survey sent out by an attractive co-worker or by an attractive model who has been hired by the survey firm. While some people may criticize this manner of implementing the photograph technique as being unethical, it certainly is within current business practice, and legal. Countless firms, for example, hire attractive models and spokespersons to enhance the persuasiveness of their offerings. Many of the models used in advertisements, for example, are specifically hired for the positive effect that their physical attractiveness will have on the advertised product. Similarly, many firms hire physically attractive people to fill positions that involve a lot of customer contact, e.g., restaurant hostess, airline stewardess, television newscaster, and public relations officer.

This study has several limitations. First, since only one level of physical attractiveness was used, it is not clear whether physical attractiveness had anything to do with the results. It is possible that a photograph of any researcher, regardless of the level of physical attractiveness, would have produced similar results. Second, the picture of the researcher was rated higher on sex appeal than on physical attractiveness. It is unclear how much of the response to the treatment was due to the researcher's physical attractiveness, sexual appeal, or to a combination of the two. Third, the cover letter stated the researcher was a college student. It is unknown whether the treatment would have produced the same results under a commercial sponsorship. Fourth, the judges who rated the photograph of the researcher were college students. While college students should be able to provide accurate ratings, it is questionable whether their views are similar to the people who were eventually surveyed.

Future researchers could expand upon the research presented in this study by examining how mail survey response is affected by a variety of cover letter photographs. The photographs should depict the whole continuum of physical attractiveness, i.e., there should be a photograph of a physically attractive researcher, a plain looking researcher, and an unattractive researcher. All of these conditions should be compared to a control group. Other variables related to physical attractiveness that could be examined in future studies include the effects of a researcher's facial expression, sex appeal, gender, race, age, hair colour, hair style, make-up, and dress.

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Appendix A. Cover Letter

MUSICAL CONTROVERSY SURVEY

Dear Los Angeles Resident:

I am conducting a survey to measure opinions about music censorship. Recently, laws have been passed requiring warning stickers to be placed on music that some people find offensive. Stickered music cannot be sold to children under 18, and some music is banned completely. Also, allegations that certain music contains subliminal messages have brought litigation against several musicians. Some people feel that federal action against the music industry is necessary to protect minors; others feel that such action violates the first amendment. I'd like to know your opinion.

I am a college student who has sent questionnaires to households like yours in the Los Angeles area. Since only a limited number of questionnaires have been sent, your response is extremely valuable to my research. Please take the time to complete the questionnaire and return it in the self-addressed stamped envelope.

All answers will be strictly confidential.

Thank you so much for your help.

Sincerely,



Laura A. Ruggiero
Research Coordinator

