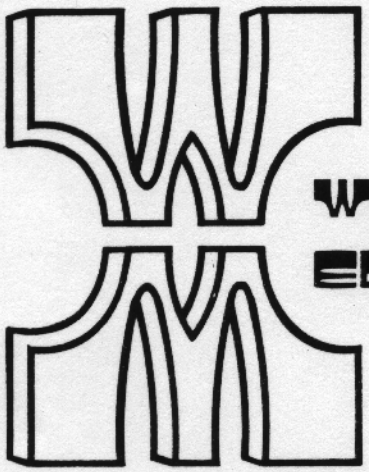

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THE VALIDITY OF SURVEY RESPONSES AS A FUNCTION OF FEAR OF VERIFICATION AND NEED FULFILLMENT

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Over a stretch of four decades, many research studies have been reported in the social science literature corroborating the conclusion that there is substantial discrepancy between the respondent's answers to survey questions when the data are verifiable and the actual facts. While the identification of the problem is necessary, its solution depends on research efforts directed at explanation of causes of survey response error. Therefore, an attempt is made in this paper to formulate a heuristic theory of response error as a first approximation by contending that distortion of factual information may largely be a function of the level of threat of verification of the reported data (against recorded data) present in a situation, and the respondent's current need satisfaction level in a particular instance.

Based upon this conceptualization, three derivative hypotheses were tested: H_1 under conditions of "no threat" of verification, inaccurate responses occur more frequently to survey questions where the respondent feels safe from any threat of verification to enhance his or her position (e.g., economic); H_2 under conditions of "mild threat" of verification inaccurate responses occur less frequently to survey questions when the respondent feels "somewhat" unsafe from the threat of verification; and H_3 the frequency of inaccurate responses will be greater by respondents who lack more of "something" of interest or value (e.g., grades) which can be gained by misreporting factual information than by those respondents who lack the same thing less acutely. Thus, the combined prediction of the three hypotheses simply states that accuracy of survey responses may depend on the level of risk inherent in a situation and on the expected reward accruing the respondent.

One hundred thirty-eight undergraduate marketing students were randomly assigned to one of two levels of threat of response verification in an after-only with control group experimental design. S's were asked to report their grades for the semester. The two levels of threat conditions were manipulated through a cover story, communicating different possibilities of response verification. In the "no threat" condition, the instructor/experimenter informed the S's that he had lost the grade book including all test material beyond any hope of recovery, while in the "mild threat" condition, he stated to the S's that he had been unable to locate his grade book. The need satisfaction wanting was surrogated by the S's class standing (grades earned).

The discrepancy between reported and recorded grades were used as the dependent variable in a series of analysis of variance. A 2x2 ANOVA indicated significant treatment and interaction effects as shown in Table 1. Consistent with the first two hypotheses, over statement of grades occurred more frequently under conditions of no threat of verification of the reported

data against the actual facts than under mild threats. The prediction relating to the hypothesis that any outcome needed to enhance the position of the respondent gives rise to misreporting behavior was also empirically supported, for S's with lower class standing overstated their grades more than those who had higher grades going for them.

TABLE 1. Two-Way Analysis of Variance of Incorrect Grade Reporting Based on Student's Class Standing

Source of Variation	Sum of Square	df	Mean Square	F
Main effects	33047.22	4	3261.80	44.25*
Treatment	19868.66	2	9934.33	53.21
Class Standing	7458.24	2	3729.12	19.97
Interaction	3720.32	4	1420.08	7.66
Experimental Error	23523.69	125	186.69	--
Totals	96570.91	134		

*P<.05

As a first approximation, the concept of survey response may be theoretically stated for further research as the related function of the algebraic sum of the products of the intensity of risk involved and the amount of reward that reporting behavior provides to complete a need. In a formula form, the foregoing statement is put in the following equation:

$$RE_{lt} = \sum_{i=1}^{n} T_{itl} \times N_{itl}$$

Where:

RE_{lt} = Respondent l's propensity of response error toward a particular survey $topic_t$

T_{it} = The magnitude of threat of verification inherent for $respondent_l$ for answering to survey $question_i$ in $topic_t$

N_{itl} = Respondent l's status of need satisfaction in the survey $question_i$ of $topic_t$

n = Number of related questions in a particular survey topic

Based on the findings from the present study, four tentative propositions were formulated to encourage further research on the model:

Proposition One: The higher the threat, with a given level of need, the lower is the propensity of the respondent to misreport.

Proposition Two: The lower the threat, with a given level of need, the greater is the propensity of the respondent to misreport.

Proposition Three: With a given level of threat, the higher is the need, the greater is the propensity of the respondent to misreport.

Proposition Four: With a given level of threat, the lower is the need, the lower is the propensity of the respondent to misreport.

A LONGITUDINAL STUDY OF FACTORS AFFECTING MAIL RESPONSE RATE

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There have been a number of studies reported in the literature during the past several years regarding methods of improving the quality and quantity of information generated by survey research. Mechanisms for enhancing the response rate of mail surveys have received most attention in the literature. A number of variables have been found to influence rates, including questionnaire length, sponsorship of the research, degree of personalization of the appeal, and use of monetary and nonmonetary incentives.

The objective of this paper is to investigate the effects of sponsorship, incentive use, and a variable which might best be described as involvement, on response rate and response time in a longitudinal mail survey experiment. Based on the results of previous research, the following hypotheses were tested:

1. Incentives will increase response rates, and rates of response will be higher for greater incentive levels.
2. Immediate rewards will produce higher response than promised rewards.
3. Higher respondent involvement will produce higher response rates.
4. Commercial sponsorship will produce higher response than student sponsorship.
5. Incentives and incentive levels will have an effect on response rate over time.

The same five hypotheses were expected to be true for response speed as the dependent variable as well as response rate.

Methodolgy

A survey was conducted in late 1977 and early 1978 to measure various characteristics and attitudes of credit card holders of a large regional gasoline refiner. Questionnaires were sent to 356 households. Of these, one group of 188 was defined as having a higher degree of involvement in the study since they held gasoline credit cards and might be expected to have a greater degree of familiarity with the operations of the company and be especially qualified to answer questions in regard to these operations. Equal numbers of households were assigned to one of five possible treatment groups which consisted of incentives given to promote the return of the questionnaire: One group was offered nothing, a second group was sent one dollar with the questionnaire, a third group was sent 50 cents, a fourth group was promised one dollar to be sent by return mail after the