

## DOES \$10 EQUAL \$10? THE EFFECT OF FRAMING ON THE IMPACT OF INCENTIVES<sup>1</sup>

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A great deal is known about the effect of incentives on response rates to mailed questionnaires; for a meta analysis see Church (1993). So, for example, we know that more money results in higher response rates than less money; money is more effective than a gift; and prepaid incentives are more effective than those promised on the receipt of the questionnaire. The same principles have been found to apply in the case of face-to-face, telephone, and mixed mode surveys (Singer et al., 1996).

At the same time, the theoretical literature on the norm of reciprocity (Gouldner, 1960; Cialdini, 1988) suggests that framing an appeal in such a way as to evoke a sense of diffuse obligation will result in higher response rates than framing it as payment for the respondent's time. The difference can, perhaps, also be thought of as a *Gemeinschaft* vs. *Gesellschaft* orientation (Toennies, 1955). The former is a reflection of a community of interests; the latter fosters a rational calculation of benefits and costs.

The question we address in this study is whether this theoretical principle is contingent on the type of incentive offered. That is, we hypothesize that the use of a monetary incentive renders an appeal to reciprocity less effective, and that the use of a gift renders it more effective. In other words, we hypothesize that certain types of appeals are congruent only with certain types of incentives, and that they are less effective when this natural congruity is violated.

In order to test this hypothesis, we designed an experiment in which two types of incentives (a pen valued at \$3.75, and a check for \$10) were randomly paired with two different types of appeals inviting students to participate in a telephone interview. One letter described the incentive as a "token of our appreciation"; the other referred to the incentive as "payment for your time." A random half of the group receiving each type of incentive received the "token" letter, the other half received the "payment" letter. Aside from the definition of the incentive as a token of appreciation or as payment, the two letters were identical in describing the content of the study (how to make surveys more effective), its sponsor (the University), and the organization carrying it out (the Survey Research Center at the University of Michigan). (Copies of the letters appear in Appendix A.) We

predicted that describing a pen as a "token of appreciation for your help" would be perceived as an appeal to the norm of reciprocity, and would be more effective in eliciting agreement to participate in the study than a pen described as "payment for your time." Similarly, we predicted that a check for \$10 described as "payment for your time" would be more effective in eliciting agreement to participate than a check for \$10 framed as "a token of our appreciation." Since most monetary incentives in face-to-face or telephone surveys are framed as promised rather than prepaid incentives, we also included a condition in which the \$10 check was described as a payment but promised to the respondent rather than sent ahead of time, so that we would be able to distinguish the effects of prepayment from the effects of appropriate framing.

### Methods

The sample for this study was drawn from a list of all first and second year full time undergraduate students at the University of Michigan. A random sample of 1,250 names was drawn in January, 1996 from the list of enrolled students on the Ann Arbor campus. The names of 46 students with no telephone number or street/dorm address were deleted from the list.

Since the vast majority of undergraduates live on campus in dorms, the sample was highly concentrated. Because we wanted to limit the influence that students had on each other's responses to the survey, the sample was structured so that we did not include roommates (72 roommates were deleted from the sample, when one of each pair was randomly excluded); and all students living on the same dorm floor received the same experimental treatment.<sup>2</sup>

A total of 625 respondents was randomly assigned to one of five experimental treatments (N=125 in each group):

- Pen incentive, given as "token of appreciation"
- Check for \$10, given as "token of appreciation"
- Pen incentive, given as "payment for your time"
- Check for \$10, given as "payment for your time"
- Check for \$10, promised as "payment for your time" upon the completion of the survey.

Students were mailed a letter asking them to participate in a telephone survey being conducted by the

Survey Research Center of the University of Michigan about how to improve survey practices. The survey was described as taking 45 minutes, and students were asked to return a card indicating their willingness to be interviewed. The mailing was done in March by SRC's Survey Services Lab, and clearly marked as a University of Michigan study. A campus telephone number and e-mail address were provided for respondents who wanted additional information about the study.

All students (both those who mailed in the return card and those who did not) were followed up with a brief telephone interview. The questionnaires differed slightly between the two groups, but both contained similar sets of questions about their attitudes toward surveys and incentives and their reasons for returning or failing to return the card (see Appendix B). The telephone interviews were conducted in April by staff from Market Strategies, Incorporated, and the survey was introduced as being done for the University of Michigan's Survey Research Center. Because different skip patterns were used in the questionnaire, interviewers were not blind to the conditions of the experiment. At the conclusion of the survey, students were told, "These are all the questions I have. The purpose of this study was to find out how people feel about surveys and also to find out whether giving them a gift makes them more willing to participate in an interview." If they were in the promised incentive condition, the interviewer then asked for their correct name and address in order to mail them a check for \$10.

## Results

### Agreement to Respond

The percentage of respondents mailing back the card indicating their agreement to be interviewed, by condition, is shown in the first column of Table 1. In all but the last condition, the incentives were prepaid--that is, enclosed with the letter requesting participation.

The percentages signifying agreement to be interviewed vary significantly among the five conditions ( $\chi^2=37.4$ ,  $df=4$ ,  $p<.01$ ).<sup>3</sup> As in other reviews of the role of incentives in mail as well as telephone and face-to-face surveys (Church, 1993; Singer et al., 1996; Yu and Cooper, 1983), we found that money is more effective than a gift (57.6% vs. 32.0%;  $\chi^2=32.1$ ,  $df=1$ ,  $p<.01$ ), and promised payment is less effective than a prepaid monetary incentive (44.8% vs. 57.6%;  $\chi^2=8.52$ ,  $df=1$ ,  $p<.01$ ).

As predicted, framing a check as payment is more effective than framing it as a token of appreciation (64% vs. 51.2%;  $\chi^2=3.68$ ,  $df=1$ ,  $p<.10$ ), but there is no "boomerang" effect when a pen is framed as "payment" for time--perhaps because the incentive effect associated

with the pen is so small. Unfortunately, we have no control group to tell us what the baseline response would have been in the absence of all incentives. However, as we shall see below, these results are contingent on the way the dependent variable is defined.

**Table 1**  
**Agreement to Be Interviewed and Actual Response Rates, by Experimental Condition**

<i>Experimental Condition</i>	(1) <i>Agreement to Be Interviewed</i> %	(2) <i>Response Rate</i> %	<i>N</i>
Pen as token of appreciation	30.4	76.0	125
Pen as payment for time	33.6	75.2	125
\$10 check as token of appreciation	51.2	79.2	125
\$10 check as payment for time	64.0	81.6	125
\$10 check as payment, promised	44.8	84.0	125

### Response Rate to the Survey

As already noted, the dependent variable in the experimental results just reported was whether or not students returned the card signifying their willingness to participate. Although not especially onerous, this act nevertheless requires the student to take the initiative in completing the card, putting it into the self-addressed, stamped envelope provided, and mailing it. It is possible to imagine students not actively opposed to participation who would nevertheless neglect to carry out these acts. Accordingly, we attempted to interview everyone in the sample, regardless of whether or not they had mailed back the card. Response rate to the survey can be seen as a measure of how firm the decision to participate or refuse, represented by mailing back the card, actually is.

Among those who had returned a card signifying willingness to participate, the response rate to the actual survey was 92%, indicating that mailing the card constitutes a high, but not perfect, commitment to complete the interview. But even among those who had

not returned the card, 69% were ultimately interviewed.<sup>4</sup> Thus, the negative commitment signified by failure to return the card is not very firm; persuasive interviewers can overcome it in a large majority of potential respondents. We should note once again that these findings are based on a student sample, and that everyone in the sample either had received (80%) or was promised (20%) some kind of incentive.

The actual survey response rates, by experimental condition, are shown in column 2 of Table 1. Note that these cannot be taken as a pure measure of incentive effectiveness, since the incentive is, in every case, augmented by one or more contacts with an interviewer. Thus, column 2 illustrates the additive and interactive effects of interviewers and different kinds of incentives; the differences between the "pure" response rates in column 1 and those in column 2 can be taken as a measure of the "added value" supplied by interviewers. In the case of some of the experimental conditions, this "added value" is very large indeed: more than forty percentage points in the case of the pen incentive conditions and almost forty percentage points in the promised money condition. In a mail survey, follow-up mailings would serve a similar function, though the increase in response rates attributable to follow-ups are generally smaller than those shown here.

However, it is not simply true that the response rates in column 2 are higher than those in column 1. *The conclusions one would draw about the relative effectiveness of different incentives also differ.* In the first place, the difference between gifts and money, while in the same direction, is considerably smaller when actual response rates are compared (75.6% vs. 80.4%, ns, compared with 32.0% vs. 57.6%). Second, the response rate to the two prepaid monetary incentive conditions, averaged together, does not differ significantly from that for promised incentives. Finally, the effect of framing, which had been significant for the cash incentives in when agreement to participate is the dependent variable, reduces to insignificance in when actual response rates are compared (81.6% for cash as payment, compared with 79.2% for cash as a token). Thus, in general, the effects of incentives are much smaller when interviewers mediate these effects, and there is no support for the framing hypothesis when only actual response rates are considered.

We return later to the implications of these findings, which should obviously be replicated in a general population survey. For the moment, we simply note that *the results of most telephone and face-to-face incentives experiments reported in the literature are based on actual survey results, not on agreement to participate; and thus they are more nearly comparable to findings in column 2 than to those in column 1.* In the case of mail surveys, our "agreement" results are like those in experiments with

no follow-ups.

### Reasons for Failing to Return the Card

The telephone survey, which took approximately 10 minutes, asked whether the respondent remembered mailing back the card; some 16 respondents claimed to have mailed back the card even though we had not received it at the time of the telephone survey, and these are counted among the returners in the analyses that follow. We also asked those from whom we had not received a card whether or not they remembered getting our letter (81.5% did), and if so, how important each of a series of eight items was in their decision not to return the card.

Table 2 shows the percentage of respondents giving a response of 4 or 5 (on a five-point scale on which only the end-points were labeled, with 5 defined as "very important" and 1 as "not at all important") to each of the eight items. The most important, clearly, is lack of time, with almost 57% indicating this was a very important reason for their not returning the card; but the second most important reason was mislaying or forgetting to mail the card, cited by 39%. This response, in particular, helps account for the high response rate elicited by interviewers even among those who had not returned the card, although it may also be an ex post facto rationalization of their decision to grant the interview. Almost equal numbers (26% and 22%, respectively) claim the fact that they "just don't do surveys" or are reluctant to give out personal information were important factors in not mailing back the card. Some 18% cited lack of interest in the topic of the survey, and 14% said the fact that we had not given them enough information was an important reason for not returning the card.

Two of the reasons differ significantly in the importance attached to them by students in different experimental conditions: not enough information ( $F=2.84$ ,  $df=174$ ,  $p=.026$ ); and suspicious about purpose ( $F=2.46$ ,  $df=177$ ,  $p=.047$ ). Those in the \$10 compensation condition rated lack of information as a more important reason for failing to return the card than students in the other conditions, though only the differences with the \$10 promised and the pen-as-token conditions were significant. Twelve percent were suspicious of the purpose of the survey, and it is noteworthy that those in the \$10 compensation condition rated this as a significantly more important reason for not returning the card than those in the gift conditions. The remaining reasons elicited only a handful of "important" mentions, and 42 respondents cited a variety of "other" reasons as important factors in not returning the card.

**Table 2**  
**Reasons Cited as Very Important in Not Returning Card**

<i>Reason</i>	<i>% Responding 4 or 5 on 5-Point Scale</i>	<i>N</i>
Not enough time	56.7	178
Not interested in topic	17.9	178
Money/gift not attractive enough	7.9	178
Don't do surveys	25.9	178
Mislaid card/forgot to mail	38.8	178
Don't like giving out personal info	21.9	178
Suspicious about purpose	11.8	178
Not enough info to make decision	13.5	178
Other	5.8	178

Singer, Hippler, and Schwarz (1992), following Grice (1975), argue that researchers may communicate unintended messages to subjects in the course of their experimental manipulations. So, for example, if a \$10 prepaid incentive is seen as an excessive reward by students, they may expect to enjoy the interview less, or expect it to be more burdensome, than those receiving the less expensive gift. Although neither of these questions elicited significantly different responses by students in different experimental conditions, the fact that lack of information and suspicion about the purpose of the survey were cited as significantly more important reasons for not returning their card by those in the \$10 compensation condition suggests that a cash prepayment framed as a payment for time may be communicating some unintended negative message to potential respondents.

### Reasons for Participation

Those students who said they had returned their card were asked a series of follow-up questions about how important various reasons had been in their decision to participate.

The most important reason is a desire to support the University--a motivation that would be absent in surveys of the general population but is clearly a crucial factor in the high response rate achieved in the present survey. But not far below it are three reasons having to do with the incentive paid--doing it for the money or gift, feeling obligated to do the survey, and feeling obligated to return the money or gift if one did not participate in the survey.

A number of these reasons differ significantly in the importance attached to them by students in different experimental conditions. "Interest" was rated as a significantly more important reason for participation by those in the token pen conditions than those in the \$10 promised or \$10 token conditions, whereas "doing it for the money/gift" was rated as much more important by those receiving a monetary incentive--mean scores on this reason were almost twice as high in the money as in the gift conditions. This suggests that students in the pen conditions were relying more on *intrinsic* motivation for participation, whereas those in the monetary conditions were relying more on *extrinsic* motivation. (An alternative interpretation is that both groups of students are inferring their motivation from their behavior [Bem, 1972]. Those who participated after receipt of a relatively inexpensive gift may have inferred that they must be interested in the survey, whereas those who participated after receiving money may have inferred that they had done it because of the money they had received.) Students in the monetary conditions also rated an obligation to return the gift or money as a significantly more important factor in participation than those in the gift conditions.

Students in the \$10 compensation condition rated liking for surveys as a significantly more important reason for participating than those in the \$10 token conditions, but the meaning of this is not clear.

We wanted to know whether there were any positive motivational effects attributable to the incentives--specifically, whether there was a felt obligation to respond because a pen or a check for \$10 had been received. According to theories based on the norm of reciprocity, a felt obligation to reciprocate is the mechanism by which prepaid incentives accomplish their effect (Cialdini, 1988).<sup>5</sup> We hypothesized that such feelings of obligation, if they existed, should be evoked more strongly by the prepaid than the promised incentive conditions, and by the monetary rather than the gift incentive conditions, since the former had greater value.

The difference in the importance that students in the promised and prepaid conditions attached to the obligation to respond is significant, with those in the prepaid conditions rating it as more important ( $t=2.30$ ,  $df=271$ ,  $p=.02$  for the average of the prepaid conditions, and  $t=2.21$ ,  $df=127$ ,  $p=.03$  for the comparison between prepaid cash as payment and promised cash as payment). A

significance test based on percentages rather than mean scores is also significant. However, there were no differences between the prepaid gift and the prepaid cash conditions in the importance attached to the obligation to respond (mean=2.84 for the pen and 2.81 for the cash conditions), and the difference between the token and payment conditions ran counter to prediction, with students in the pay conditions rating the obligation to respond as more important (mean=2.93) than students in the token conditions (mean=2.71).

## Discussion and Conclusions

This experiment was designed to test the impact of framing on the effectiveness of cash and gift incentives in increasing response rates to a telephone survey. It was hypothesized that congruent descriptions (that is, describing cash as a payment, and gifts as a token of appreciation) would enhance the effectiveness of both cash and gifts, whereas incongruent descriptions (cash as a token of appreciation, a gift as payment) would reduce their effectiveness.

Findings and conclusions vary somewhat depending on whether we look at *agreement to respond* or *actual response rate* as the dependent variable. We have, in effect, two measures of participation. The first is a postcard returned by the students, indicating that they would be willing to participate in the survey. This measure of participation is uncontaminated by the persuasive abilities of interviewers, and presumably reflects most clearly the effect of different incentives and the way they have been framed. The second measure of participation is whether or not the student actually participated in the interview after being contacted by a telephone interviewer.

Often, only the second measure is available in research on incentives and other methodological research. *And what is noteworthy about the present study is that the conclusions would change if we had only this second measure available for analysis.* That is, the interviewer not only increases response rates, but overrides at least some of the experimental effects of interest.

If *agreement to respond* is taken as the appropriate dependent variable, the hypothesis about framing is supported for cash incentives but not for gifts; regardless of whether the latter were framed as tokens or payment, the response rates associated with the gift were lower than the response rates associated with cash and not significantly different from each other. Prepayment of the monetary incentive was significantly more effective than its promise. Both of these findings are congruent with those from other investigations of incentives (Church, 1993; Singer et al., 1996; Yu and Cooper, 1983). Thus, we would conclude that how an incentive is framed

significantly influences agreement to respond for cash incentives but not for gifts.

If, however, we regard *actual survey response rates* as the appropriate dependent variable, then all of these conclusions would differ. First, the framing hypothesis is supported for neither gifts nor cash. Second, there is no significant difference in response rates between gifts and cash. Finally, there are no significant effects of prepayment. Whether these findings are peculiar to the student sample is something we do not know; but they reflect the effects of interviewers in addition to those of incentives.

Because we went on to interview most potential respondents, regardless of whether or not they had returned a card signifying their intention to participate, we can say something about reasons for participation and nonparticipation (using failure to return a card as an indicator of nonparticipation), and we can also look at the effect of varying incentive offers as well as willingness to participate on attitudes to surveys more generally. Several findings stand out as important:

1. Students who received a pen were more likely to cite interest in the topic as a reason for participation, whereas those who received \$10 were more likely to say they were participating because of the "money or gift". Thus, students in the gift conditions seemed to be relying on intrinsic motivation for participation (or attributing such motivation to themselves), whereas those in the cash conditions seemed to be relying on extrinsic motivation (or attributing such motivation to themselves). We cannot tell from this study whether this difference in motivation has consequences for response quality, but this is a topic that we feel warrants further research.

2. There were significant differences between the prepaid and promised experimental conditions in the feeling of obligation to participate. Those in the prepaid conditions felt significantly more obligated, which we conclude is one important mechanism by which prepaid incentives achieve their effect. However, there were no significant differences in the obligation to respond evoked by gifts and cash.

3. Paying students \$10 ahead of time for completing an interview and defining this as payment for their time seems to arouse a certain amount of suspicion on their part. Although students in this condition were more likely to return their card, those who did not return the card were significantly more likely than those in other conditions to cite lack of information and suspicion about the purpose of the survey as the reasons.

4. Self-reported prior survey participation does not support the hypothesis of a consistent group of refusers in the population. Those who did not return their card in the present study, but who were subsequently interviewed, were no more likely to have refused a prior survey than

those who did return their card. However, the most persistent refusers are excluded from this analysis because they were not interviewed.

5. Attitudes to surveys distinguish those who returned their card from those who did not. In general, those who returned the card were much more favorably disposed to surveys. Again, it is possible that such attitudes are inferred from the behavior of participation, rather than being responsible for it.

6. Students in the two pen conditions who returned their card were much more likely to agree that everyone has a responsibility to participate in surveys than those in the cash conditions. Apparently, among students who received a gift, returning the card depended on whether or not they felt a responsibility to participate. Among students who received cash, returning the card was independent of felt responsibility. Money appears to override predisposition, whereas gifts do not--a finding already foreshadowed by the discussion of findings under (2), above.

7. Among those students who failed to return their card, there were no differences between the "token" and the "pay" conditions in the percentage who believed the survey organization was paying for their time, and only about half as many perceived the survey organization was paying for their time among these students as among those who returned the card. The meaning attached to incentives by survey organizations, in other words, are not always perceived in the same way by potential respondents.

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## Footnotes

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<sup>2</sup>The sample included 123 floors, which were linked to form 50 strata of about equal size (number of students). The strata were systematically assigned to the five treatments, after a random start.

<sup>3</sup>A handful of letters were returned as undeliverable. These did not cluster in any one experimental condition, and are included in the denominator.

<sup>4</sup>We stipulated that interviewers were to call back at least 4 times, at different times of the day and on different days, and to make one attempt to convert refusals by those who had not returned the card.

<sup>5</sup>Additional reasons for the effect of prepaid incentives may be that prepayment builds a sense of trust or increases the perceived importance of the survey.