LIBRARY
Michigan State
University

This is to certify that the
dissertation entitled

THE PATH FROM FAVORS TO COMPLIANCE: EXPLAINING
THE EFFECTIVENESS OF PREGIVING MESSAGES

presented by

RYAN GOEI

has been accepted towards fulfillment
of the requirements for the

_____ Ph.D. _____ degree in _____ Communication _____

_____
/Major Professor's Signature

_____ 20 October 2003 _____

Date

PLACE IN RETURN BOX to remove this checkout from your record.
TO AVOID FINES return on or before date due.
MAY BE RECALLED with earlier due date if requested.

DATE DUE	DATE DUE	DATE DUE
SEP 1 5 2005		
OCT 1 6 2006		

THE PATH FROM FAVORS TO COMPLIANCE:
EXPLAINING THE EFFECTIVENESS OF PREGIVING MESSAGES

By

Ryan Goei

A DISSERTATION

Submitted to

Michigan State University

in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

Department of Communication

2003

ABSTRACT

THE PATH FROM FAVORS TO COMPLIANCE:
EXPLAINING THE EFFECTIVENESS OF PREGIVING MESSAGES

By

Ryan Goei

Several studies suggest that pregiving messages (providing the target with a favor before making a direct request for compliance) are more effective than direct requests. Most explanations for this phenomenon posit that the norm of reciprocity causes us to feel obligated to repay the favor. Nevertheless, alternative explanations for reciprocal behavior do exist, but are often confounded in the literature. This dissertation attempts to differentiate between two of these explanations, gratitude and obligation, and test the relative veracity of each as a mediator of the favors to compliance relationship. Findings are consistent with the two factor model, challenge the obligation explanation, and bolster the gratitude explanation.

DEDICATION

This dissertation is dedicated to my family who endured many hours supporting me from afar. Amy, Grace, and Helena, I love you each very much.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

The path from favors to compliance: Explaining the effectiveness of pregiving messages

Marwell and Schmidt (1969) defined a pregiving message as one in which the requester provides the target of a request with a favor before making a direct request for compliance. As such, one can conceive of a pregiving message as a favor induction followed by a direct request. Previous research suggests that a pregiving message among strangers increases compliance with subsequent direct requests (e.g., Boster, Rodriguez, Cruz, & Marshall, 1995; Regan, 1971; Wilke & Lanzetta, 1970). Stated differently, people often reciprocate favors. Acting in kind, however, presumes no explanation for such behavior. In fact the reason that people reciprocate favors is unclear and has been an issue of some debate. The purpose of this study is to test the relative veracity of two potential explanations for reciprocal behavior: obligation and gratitude.

Most scholars attribute the effectiveness of a pregiving message to a sense of obligation stemming from a social norm of reciprocity (e.g., Boster, Rodriguez, Cruz, & Marshall, 1995; Cialdini, 2001; Gouldner, 1960; Greenberg & Frisch, 1972; Regan, 1971). Conceptualizations of the norm of reciprocity suggest that obligation, and the requisite drive to reduce it, increases compliance after a pregiving message. Though pervasive, the obligation explanation lacks ample empirical supporting evidence and does not stand alone in a list of potential explanations for why persons often act in kind.

McCullough, Kilpatrick, Emmons, and Larson (2001) proposed that gratitude mediates the favors-compliance relationship. The gratitude explanation does not resemble obligation's model of negative state relief. Quite the contrary, gratitude is a positive affective state that drives directly increased compliance. Obligation and gratitude present potentially unique (although probably not unrelated) explanations for the favors-

1

compliance relationship.

Gratitude and obligation share a confounded history and differentiating between the two constructs is no straightforward matter. Scholars often use both terms interchangeably or discuss the two distinctly but create a unidimensional index (usually dubbed obligation) during analyses. Another potential difficulty is that most attempts to induce gratitude also induce obligation and vice versa. It is certainly difficult, although not impossible, to conceive of and implement inductions that generate one and not the other. Therefore, the purpose of this dissertation is twofold. First, it tests the dimensionality of gratitude and obligation. Second, it examines the relative veracity of the roles of gratitude and obligation in explaining the effectiveness of a pregiving message.

Obligation

The clearest account of the obligation explanation can be found in a seminal article by Gouldner (1960). In this article Gouldner suggested that reciprocal behavior was governed by a universal social norm that made two demands: "(1) people should help those who have helped them, and (2) people should not injure those who have helped them" (p. 171). Hence, one must reciprocate favors and until one does, one will experience a sense of obligation toward their benefactor.

Thus, the obligation explanation is based on the norm of reciprocity. Upon receipt of a favor one recognizes the norm mandating reciprocation and experiences a sense of obligation. One experiences obligation as a psychologically aversive state (e.g., Gouldner, 1960; Greenberg & Shapiro, 1971), a state to eliminate. Therefore, when provided the opportunity to reciprocate after a favor, the likelihood of compliance

2

increases due primarily to the drive to reduce obligation. Complying with subsequent requests from the original favor doer constitutes one method for reducing obligation. The obligation explanation posits a fundamentally exchange-based view of human behavior steeped largely in equity and social exchange theories (Walster, Berscheid, & Walster, 1973).

Most scholars treat the existence of the obligation explanation as a foregone conclusion. Hwang (1987), for example, notes that the norm of reciprocity, "... has been accepted as a basic moral rule of social cohesion in most cultures." (p. 956). Cialdini (2001), in his enormously popular persuasion text, dedicated an entire chapter to the norm of reciprocity and its requisite obligations. Despite obligation's widespread acceptance, the lack of stringent tests of the norm and its explanatory mechanisms should leave the critical consumer a bit skeptical. In fact, to date little is known concerning why people exhibit the tendency to reciprocate favors.

A few scholars have attempted to test directly the viability of the obligation explanation. As has been noted elsewhere though, (Goei, Lindsey, Boster, Skalski, and Bowman, 2003) many of these tests are fraught with methodological weaknesses that should stimulate some measure of doubt. Nevertheless, a couple interesting investigations of obligation do exist and are worth noting.

Greenberg and Frisch (1972) conducted a consequential examination of the obligation explanation. They asked a third party to read a pregiving message scenario and respond to questions regarding how obligated the recipient of the pregiving message felt after receiving the favor. They concluded that obligation mediated the pregiving-compliance relationship. The method, however, is somewhat objectionable (although a

measurement study to verify its consistency with various self-reports would be more persuasive). Particularly if our interests lie in the response of the person who received the favor, surely external raters do not maintain privileged access to these internal responses in the scenario participant. In fact it is plausible that, in making predictions of other's reactions to a favor, raters relied largely on widely accepted perceived social norms like the norm of reciprocity to make their judgments (Nisbett & Bellows, 1977). In addition, although they did not measure gratitude directly, they did measure liking and concluded that liking was an equally plausible explanation for reciprocal behavior in the study – a conclusion that has been since empirically substantiated (Goei, et al., 2003). Thus, this method does not differentiate between alternative explanations and therefore does not provide a strong test of the obligation explanation.

Regan (1971) conducted the most methodologically sound and often cited study of the norm's explanatory mechanisms. He tested the relative veracity of a cognitive (obligation) and an affective (liking) mediator of the favors-compliance relationship. To do so he induced both obligation and liking. He measured liking, not obligation, and reasoned that to the extent that liking did not explain variance in compliance after a favor, obligation was the active force. Assuming no viable alternative explanations and no significant methodological weaknesses, this argument structure may be valid. Neither assumption, however, is tenable. Certainly alternative explanations exist. Liking (e.g., Goei, et al., 2003), gratitude (e.g., McCullough, Kilpatrick, Emmons, and Larson, 2001), and mood (e.g., Carlson, Charlin, & Miller, 1988) are all possible alternatives. Moreover, important methodological insufficiencies have been pointed out (Goei, et al., 2003) and when remedied resulted in data inconsistent with the obligation explanation.

Gratitude

McCullough, Kilpatrick, Emmons, and Larson (2001) defined gratitude as a positive moral affective response to the perception of self-benefit due to some external acting agent. Emmons and Crumpler (2000) defined it as "an emotional response to a gift." (p. 56). Lazarus and Lazarus (1994) defined it as the appreciation felt after one has been the beneficiary of an altruistic act. Gratitude is the emotion of thankfulness.

Several scholars have proposed or implied that the experience of gratitude mediates the favors-compliance relationship (e.g., Emmons, & Crumpler, 2000; McCullough et al., 2001; Smith, 1790/1976). The argument for gratitude as mediator states that when a benefactor acts in a way that improves the beneficiary's well-being, the beneficiary feels gratitude toward the benefactor. The positive feeling of gratitude causes beneficiaries to want to assist their benefactor to improve their benefactor's well-being similarly. Even discussants of the norm of reciprocity occasionally suggest gratitude mediates the relationship between favors and reciprocation (e.g., Gouldner, 1960; Tesser, Gatewood, & Driver, 1968), a testament not to the popularity of the gratitude explanation, but rather to the ambiguity with which scholars typically use the terms.

Differentiating obligation and gratitude

Researchers often treat gratitude and obligation as a unidimensional construct or speak loosely about similar concepts like onus and indebtedness, appreciation and thankfulness (e.g., Gouldner, 1960; Tesser, Gatewood, & Driver, 1968). As a result these constructs have endured a confusing history. It is important to reiterate, however, that potential differences do exist. To elaborate further some distinctions are detailed next.

Differences in the valence of the two responses constitute one distinction. One

experiences obligation as an aversive state (Gouldner, 1960). It is a negative state of duty or indebtedness rendered aversive by its inconsistency with the social norm of reciprocation and implies a sense of non-voluntary behavior that compels one to eliminate it (Greenberg & Shapiro, 1971). In contrast, one experiences gratitude as a positive emotion associated with pleasant states like contentment, pride, and happiness (McCullough, Kilpatrick, Emmons, & Larson, 2001). Gratitude is not a negative state and does not imply a sense of forced compliance. In fact, one may be inclined to perpetuate the emotion of gratitude.

Obligation and gratitude also differ in terms of response type. Obligation is a primarily cognitive response, the thought that the equity in costs and benefits has been lost and must be restored. It is a cognitive tension based on an assessment of unequal exchange. Gratitude, on the other hand, is a primarily affective response (e.g., Reisenzein, 1994; Russell & Paris, 1994) an emotional reaction one experiences after attributing the improvement in self well-being to the actions of another external agent. Presumably, gratitude is so affectively dominant that it overwhelms the rational mind and any cognitive assessment of exchange. One might colloquially summarize the experience of obligation and gratitude in the drive to reciprocate favors as the difference between, "I have to...," and, "I want to...," respectively.

Perhaps the failure to distinguish between obligation and gratitude is due, in part, to the difficulty inducing one without the other. Nevertheless, it is not difficult to imagine feeling grateful but not obligated, obligated but not grateful, both grateful and obligated, and neither. This thought experiment suggests that gratitude and obligation probably do not exist as one construct. To understand more fully compliance after a favor it is

necessary to assess the factor structure and mediating roles of gratitude and obligation in the favors-compliance relationship. Inducing gratitude and obligation independently would create ideal conditions for testing the relative effects of the two explanations.

Pretest Method

Dual goals characterize the pretest –induce gratitude and obligation independently and test their factor structure. The pretest does not include a measure of compliance therefore one cannot draw conclusions concerning the mediating effects of gratitude and obligation from the pretest. The pretest has only two dependent variables of interest: obligation and gratitude.

Design

A favor type (no favor, gratitude favor, obligation favor, gratitude and obligation favor) X measurement technique (self-report survey and informal interview) independent groups design was employed. No attempts to induce obligation and gratitude independently could be identified in the literature. Greenberg, Bar-Tal, Mowrey, and Steinberg's study (as cited in De Cooke, 1992), however, found that beneficiaries felt obligated to benefactors to the extent that the beneficiary believed the benefactor perceived a debt to exist. Thus, to the extent that a favor received by B from A causes B to believe that A perceives a debt or not, B may respond accordingly. For example, if B perceives that A expects him to feel grateful and not obligated he may respond with high gratitude and low obligation. Therefore, to invoke gratitude and obligation independently, the experimental inductions vary the message uttered upon presentation of the favor to make participants aware of the favor doer's expectations for the interaction.

There are at least two concerns with the validity of the survey measure of

gratitude and obligation. First, the experimental cover story might not adequately deceive participants, thereby increasing the probability of demand effects. Second, and more importantly, participants might not disclose willingly their true response to the favor. To allay these concerns the pretest employed two methods of measuring gratitude and obligation. In the survey method participants completed a questionnaire (ostensibly unrelated to the present study) to measure feelings of gratitude and obligation. In the interview method a second confederate followed participants into the hallway and, more informally, asked questions pertaining to whether or not they felt obligated or grateful toward their benefactor. The interview method provided a less-threatening environment for participants to respond true to their experience in the case that reporting obligation or gratitude had negative face-saving ramifications.

Participants

The sample included 96 college undergraduates recruited from core Communication courses. Participants could refuse to participate and complete an alternative assignment but, if so inclined, could participate for course credit. Sixty-two participants responded to the survey measures, 34 to the interview measures. Fewer undergraduates participated in the interview conditions because of difficulty securing and scheduling extra confederates. Participants interacted with a same sex confederate so as to not confound sex of the confederate with sex of the participant.

Procedure

Upon arrival at the laboratory, the investigator seated participant and confederate in facing cubicles so that they could not see each other. The researcher then provided an introduction to the study and its purpose – to determine how attitudinally similar or

dissimilar partners brainstorm. The researcher then directed confederates to an adjacent room and instructed participants to complete an attitude questionnaire designed to measure their similarity level with the confederate. After gathering both questionnaires and escorting confederates back to the room, the researcher then commenced the first five-minute brainstorming task. Pending completion of the first brainstorming task, the investigator randomly selected one of four favor/no favor control conditions (measurement technique varied with confederate availability).

In all conditions the confederate (within earshot of the participant) asked, "Can I get a drink?" The researcher replied, "Sure". In the no favor control condition the confederate left the room to get a drink and returned to recommence the brainstorming sessions. Thirty seconds later the experimenter returned to begin the second and third brainstorming tasks.

In the gratitude favor condition the confederate returned with two soft drinks, gave one to participants and said, "Hey, I got you one too". If participants offered payment, confederates refused it. After participants expressed their thanks, confederates made it clear that they did not expect the participant to operate via obligation by replying, "Don't worry about it, it's nothing. And don't feel like you have to pay me back ... it's really not necessary."

In the obligation favor condition confederates returned with two soft drinks, gave one to participants, and said, "Hey, I got you one too". If participants offered payment, confederates refused it. After participants expressed thanks, confederates made it clear that they expected participants to operate via the obligation explanation by replying directly, "Yep, you owe me one."

Assuming that favors induce obligation and gratitude, the confederate provided the participant a favor without a message in the obligation and gratitude favor condition. In the obligation and gratitude favor condition confederates returned with two soft drinks and said to participants, "Hey, I got you one, too." They then handed the soft drink to participants. If participants offered payment, confederates refused it. When thanked, confederates replied, "You're welcome" and immediately returned to their desk.

After completing the second, third, and fourth brainstorming task, the researcher returned to the room and asked participants and confederates to report their understanding of the study. After recording their responses, the investigator pronounced the study complete, but paused and asked, "But I have to ask you something (looking toward the confederate). Did you give her a drink during the study?" After an affirmative response the experimenter then turned to participants and asked, "Did you ask her to get it for you?" Participants invariably responded negatively, and the researcher continued, "This is great! Because I am doing another study on favors and I'm interested in why people do favors and how favors make people feel. Would you two mind filling out a questionnaire for this other study before you leave? It would really help me with that project and will only take a minute." All participants agreed to complete the survey. The experimenter then retrieved the gratitude and obligation questionnaires from another room and brought them to participants (and confederates) to complete.

In the no favor condition the investigator simply asked participants to complete another questionnaire. This questionnaire imbedded gratitude and obligation items within a few others to disguise its true purpose. After participants completed the obligation and gratitude questionnaire the researcher debriefed, pledged to secrecy and dismissed them.

In the informal interview conditions participants engaged in the study with two confederates. The interview favor conditions parallel the survey favor conditions. In the interview conditions Confederate A brought a Pepsi for both Confederate B and the participant while Confederate B completed a questionnaire in another room. Confederate A returned to the lab with three Pepsi's. They left one on their own desk, one on Confederate B's desk, and handed one to the participant. Pending completion of the fourth brainstorming task, the researcher dismissed the participant and confederates. Confederate B (who did not provide the favor) exited with the participant and once out of earshot of the laboratory engaged the participant in conversation, "Did that person give you a Pepsi, too?" Following an affirmative response, confederates followed with two yes or no questions designed to measure whether or not participants felt obligated or grateful.

In the control condition, confederates said, "Excuse me. I have a strange question to ask you." He then proceeded to ask the same two yes or no questions designed to measure obligation and gratitude. After participants responded the investigator called them back into the laboratory where they debriefed, pledged to secrecy and dismissed them.

Instrumentation

Obligation. Obligation was measured using a four item, 7-point, Likert self-report measure. Items included, "I felt obligated to my favor-doer" and "I felt that I owed the person who did a favor for me." Obligation items were coded such that the lowest score (strongly disagree) represented an absence of obligation and the highest score (strongly agree) represented a strong sense of obligation. The midpoint of the scale was labeled "neutral" and represented moderate amounts of obligation. This scale has passed previous

tests of internal consistency and parallelism (Goei, et al., 2003). Standardized item alpha was computed for the scale and found to be .88. The mean was moderate ($M = 4.09$, $SD = 1.30$). In the interview conditions, confederate B asked the participant, "Did you feel like you owed him/her one?" Participant's yes or no response constituted the measure of obligation in these conditions.

Gratitude. Gratitude was measured with three, seven-point, Likert-type items. Items included, "I felt thankful toward my favor-doer" and "I felt grateful toward the person who did the favor for me." Gratitude items were coded such that the lowest score (strongly disagree) represented an absence of gratitude and the highest score (strongly agree) represented intense feelings of gratitude. The midpoint of the scale was labeled "neutral" and represented moderate amounts of gratitude. The mean was high, the vast majority of persons indicating that they felt strongly grateful ($M = 6.22$, $SD = 1.09$). Standardized item alpha was computed for the scale and found to be .96. In the interview conditions confederate B asked the participant, "Did you feel thankful toward him/her?" Participant's yes or no responses constituted the measure of gratitude in these conditions.

Pretest results

Confirmatory factor analysis (Hunter & Gerbing, 1982) was employed to test the dimensionality of the obligation and gratitude measures. Based on the small size of the errors in tests of internal consistency and parallelism, the data were deemed consistent with the hypothesized two-factor solution. Furthermore, the data did not fit a unidimensional model suggesting that obligation and gratitude do not form a single construct and should be differentiated.

The effectiveness of the inductions on participant's self-reported levels of

gratitude and obligation were examined next. To consider the independent variables minimally successful at inducing gratitude and obligation independently, gratitude and obligation means must differ from baseline (i.e., no favor control) according to a priori predictions. Specifically, gratitude scores should increase from baseline after a gratitude favor and obligation scores should not. Obligation scores should increase from baseline after an obligation favor and gratitude scores should not. Obligation and gratitude scores should both increase from baseline in the gratitude and obligation favor conditions and they should not differ significantly from baseline in the no favor conditions.

One can examine the means (see Tables 1 and 2) and deduce readily that the inductions failed to produce gratitude and obligation as expected. Specifically, the obligation induction increased gratitude as well as obligation and the obligation and gratitude induction increased gratitude but failed to increase obligation.

A two-way independent groups analysis of variance with contrast coefficients was used to test formally the inductions effect upon gratitude. Contrast coefficients of 1 were assigned to the gratitude favor and favor conditions and -1 to the obligation favor and no favor conditions. This computation yielded a substantial and statistically significant result (t [58] = 5.43, $p < .01$, $r = .58$). Examination of the cell means, however, suggested that the significance of this test originated from a magic cell. Specifically, low gratitude scores in one cell (the no favor condition) and high scores in all other cells (all favor conditions) produced the illusion of a main effect for the gratitude induction, but arose due primarily to a main effect for favor on gratitude. A post-hoc test (assigning a coefficient of -3 to the no favor condition and 1 to all favor conditions) accounted for more variance than the a priori contrast test (t [58] = 9.12, $p < .01$, $r = .77$). In fact,

13

corrected for attenuation due to error of measurement favors correlated with gratitude

quite strongly [$r = .79$, $P(.69 \leq \rho \leq .89 = .95)$]. One can view the gratitude means for each

condition in Table 1.

Table 1

Pretest: Gratitude Descriptives

	No favor	Favor	Obligation favor	Gratitude favor
Survey	4.53(1.38)	6.59(.46)	6.67(.42)	6.60(.40)
Interview (% yes)	.17	1.0	.88	.75

* *Note*: Mean (Standard Deviation)

With contrast coefficients of 1 assigned to the obligation favor and favor

conditions and -1 to the gratitude favor and no favor conditions, the effectiveness of the

obligation inductions on obligation was tested. A statistically significant result did not

emerge (t [58] = -.53, $p = .60$, $r = -.07$). Moreover, in contrast to the effect of favor on

gratitude, the correlation between favor (across all types of favor) and obligation [$r = .08$,

$P(-.17 \leq \rho \leq .33 = .95)$] fell within sampling error of zero. One can view the obligation

means for each condition in Table 2.

Examination of the cell means suggested that both the gratitude favor and

obligation favor conditions (the only favors provided with a message) induced higher

levels of obligation. Therefore, with contrast coefficients of -1 assigned to the no favor

and favor conditions and 1 to gratitude favor and obligation favor conditions, a post-hoc

test of the effect of both messages on obligation was undertaken. Results of this analysis

revealed a substantial effect (t [58] = 2.90, p = .005, r = .36) suggesting that both the

gratitude and obligation favors had a substantial positive effect on obligation. Note,

however, that the means for obligation in these two conditions still did not substantially

exceed the neutral midpoint of the scale (t [35] = 1.62, p = .11, r = .26). In fact, across all

favor conditions participants in this study reported feeling highly grateful [M = 6.62,

$P(6.54 \leq \mu \leq .6.70 = .95)$] and moderately obligated [M = 4.09, $P(3.9 \leq \mu \leq 4.28 = .95)$],

a difference that was statistically significant (t [98] = -14.21, p < .001, r = .82).

Table 2

Pretest: Obligation Descriptives

	No favor	Favor	Obligation favor	Gratitude favor
Survey	3.90(1.27)	3.27(1.02)	4.65(1.12)	4.36(1.38)
Interview (% yes)	.17	.38	.25	.25

* *Note*: Mean (Standard Deviation)

Results from the interview method mirror findings from the self-report survey. In

the no favor condition 17% percent of the participants reported that they felt gratitude or

obligation. In the favor condition all participants indicated that they felt grateful, and only

37% reported feeling obligated. In the obligation favor condition 88% percent of

participants responded that they felt gratitude and only 25% responded that they felt

obligation. In the gratitude favor condition seventy-five percent reported they felt

gratitude, and only 25% reported they felt obligated.

The majority of participants in all three favor conditions felt gratitude and very

few felt obligation. Nearly 88% of all participants reported feeling some amount of gratitude, and only 29% of all participants reported feeling some amount of obligation. Interview results do not mirror survey results that suggested the gratitude favor and obligation favor increased obligation. Nevertheless, these findings corroborate survey findings that suggested all favor conditions induced high levels of gratitude but not obligation.

<center>Pretest discussion</center>

The favor inductions failed to induce gratitude and obligation as predicted. An interesting pattern, however, did emerge. The overwhelming, and somewhat surprising, finding from the pretest is that participants in favor conditions reported high feelings of gratitude and only moderate levels of obligation. Second, and more importantly, favors drive gratitude strongly but fail to affect obligation in any significant fashion. If favors do not drive obligation, then obligation becomes a less plausible mediator of the favors-compliance relationship. Multiple explanations exist for this finding – participants may not have the ability to report their own obligation, may not desire to report obligation, or simply may not experience obligation after this type of favor.

Participants may not be aware of obligation. Feeling obligated due to the norm of reciprocity may not exist within our consciousness. This proposition seems unlikely, however, considering the multiple, direct obligation probes. Moreover, based on interviews in the pretest after debriefing, many participants reported past experiences of obligation. For these reasons it does not seem likely that participants lack the ability to assess obligation. Participants, however, might not wish to report obligation.

Goei, et al. (2003) suggested that humans may not wish to report feeling obligated

<center>16</center>

after being asked to comply with a prosocial request (i.e., support cancer research). Given that most of us desire to present ourselves as kind and generous persons, it does not reflect positively on a person who reports donating money to cancer research solely to alleviate a sense of obligation. In this pretest, however, the confederate did not make a compliance-gaining request by which to frame feelings of obligation negatively. Therefore it makes less sense that participants do not want to report obligation. Moreover, the interview condition provided a less-threatening environment for participants to report gratitude or obligation to someone in a similar position experiencing the same phenomenon. Yet, despite this participants still failed to report increased obligation. If not inability or unwillingness, might it be that participants simply do not experience obligation when provided small favors from strangers?

Given the lack of supporting evidence for the obligation explanation, one must consider the possibility that obligation is not the primary response to favors of this ilk and that the affective components of gratitude overwhelm assessments of obligation. If favors do not lead to obligation then obligation cannot mediate the favors-compliance relationship and the notion of a ubiquitous norm of reciprocity (at least as commonly explained) becomes less plausible. At this point, this argument seems the most plausible of the three. These preliminary data, however, do not allow us to draw strong conclusions. The limitations of the pretest are worth reiterating.

First, because no measure of compliance was taken, these data do not speak directly to the full mediating roles of obligation and gratitude. Additionally, and more poignantly, low levels of obligation could be an artifact of pretest idiosyncrasies. Specifically, because the pretest employs a small favor (i.e., a single soda) during a one-

time interaction among strangers, these findings may not generalize to situations in which participants expect ongoing interactions and receive favors that cost the benefactor greatly. Despite the limitations, these findings challenge the notion that small favors among strangers produce a sense of obligation as predicted by the norm of reciprocity.

Main Experiment Method

A study was designed to test these notions further and address the limitations of the pretest. This main experiment contains notable differences from the pretest. First, a measure of compliance was added to enable analyses of the mediating roles of gratitude and obligation. Second, given the failure of the pretest predictions, the main experiment employs alternate inductions of gratitude and obligation. Third, further thought prompted the inclusion of an additional potential obligation factor, a factor that requires some clarification.

Many conceptions of the obligation explanation are based in theories of social exchange. Obligations, according to social exchange theories, may come from the desire to further one's own benefits in the future. Thus, although people may feel obligated to repay favors directly, they may also feel obligated to comply with subsequent requests for their own, more self-interested reasons. For example, I may choose to reciprocate my wife's favors because I feel obligated to comply with the norm of reciprocity. On the other hand, I may choose to reciprocate my wife's favors because I feel it is necessary to ensure my ability to attain favors from her in the future or because I feel I must to prevent an angry reaction that will subsequently affect my mood. The shift from a pure obligation approach to obligation for self-interested reasons constitutes a subtle but potentially important distinction. Therefore, this variable, henceforth labeled enlightened self-

18

interest, was included to detect a potential missing nuance to the obligation explanation.

The main experiment varies two concepts likely to affect gratitude, obligation, and enlightened self-interest: favor cost and anticipation of future interaction. Given the trouble inducing obligation and the relative ease of inducing gratitude in the pretest, the main experiment employs these two independent variables crafted explicitly to increase feelings of obligation. In addition to the changes in favor inductions, the nature of the favor was altered to increase the potential for obligation. It was thought that the degree to which one requires help might increase feelings of obligation toward the beneficiary perhaps due to increased feelings of responsibility for the costs incurred by the beneficiary in providing the favor. Specifically, participants were provided a favor only after the need for said object had been made apparent. In general, because pretest findings challenged the obligation explanation, the second experiment was designed to provide obligation every chance to succeed.

The first induced variable is favor cost. It has been suggested that obligation varies with the cost of the favor to the benefactor (e.g., Greenberg & Frisch, 1972). Feelings of gratitude, however, may also vary with changes in favor cost (Tesser, Gatewood, & Driver, 1968). Therefore, it is purported that increased cost to the benefactor will produce stronger feelings of obligation and gratitude in the beneficiary.

The second induced variable is anticipation of future interaction. Research on social dilemmas suggests that one-time interactions may not produce cooperative patterns and that perceptions of cooperation increase over time (e.g., Henry, 2000; Rutte & Wilke, 1992). Given the transitory nature of the pretest experiment, participants may have failed to make an assessment of obligation (or enlightened self-interest had it been measured).

Put differently, anticipating future interaction with the benefactor should increase the probability that beneficiaries operate from a more exchange based perspective. Thus anticipation of future interaction should increase the two exchange-based constructs: obligation and enlightened self-interest.

Completing the second half of the model, each of the induced mediators (gratitude, obligation, and enlightened self-interest) should work to increase compliance with subsequent requests from the favor giver. Figure 1 displays the expected relationships. The figure posits that favor cost causes obligation and gratitude, that anticipation of future interaction causes obligation and enlightened self-interest, and that obligation, gratitude and enlightened self-interest subsequently drive compliance. The main experiment was designed to test these suppositions.

Design

A favor cost (low cost / high cost) x anticipation of future interaction (no anticipation of future interaction / anticipation of future interaction) with two no favor control conditions (no anticipation of future interaction / anticipation of future interaction) design was employed. Confederates varied favor cost either by providing participants with an examination booklet from their backpack in the laboratory, or providing participants with an examination booklet which they volunteered to retrieve from their automobile parked approximately 200 yards away. The researcher varied anticipation of future interaction by informing participants that they would meet only this once, or continuing the study in two subsequent meetings during which they would interact extensively with the same partner. Participant's feelings of gratitude, obligation, enlightened self-interest, positive and negative affect, psychological discomfort, and
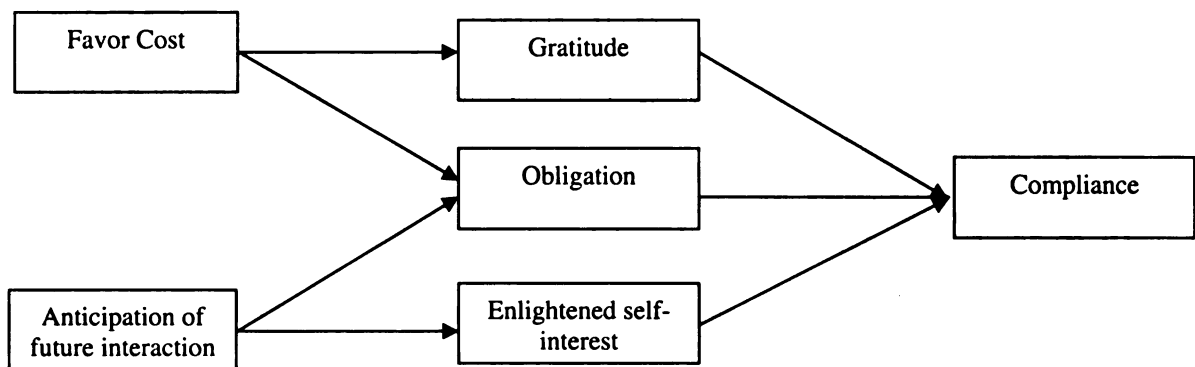
subsequent compliance were measured.

Participants

One hundred and sixty undergraduates from Michigan State University

participated in the study (70 males and 90 females). The researcher recruited participants

Figure 1

Main Experiment: Proposed Model

```
┌──────────────┐                ┌──────────────┐
│  Favor Cost  │──────────────▶ │  Gratitude   │
└──────────────┘                └──────────────┘
         \                                      \
          \                                       \
           \        ┌──────────────┐               \   ┌──────────────┐
            ──────▶ │  Obligation  │──────────────────▶│  Compliance  │
           /        └──────────────┘               /   └──────────────┘
          /                                       /
┌──────────────┐                ┌──────────────┐
│ Anticipation │──────────────▶ │ Enlightened  │
│ of future    │                │ self-        │
│ interaction  │                │ interest     │
└──────────────┘                └──────────────┘
```

from introductory communication classes at Michigan State University (they received

class credit for participation) and randomly assigned participants to one of the six

conditions. Participants interacted with a same sex confederate to not confound sex of the

confederate with sex of the participant.

Procedure

One participant and one confederate arrived at the laboratory where the researcher

welcomed the two into the laboratory. Instructions for the brainstorming cover story

paralleled those of the pretest. During these instructions the researcher varied anticipation

of future interaction. To induce anticipation of future interaction the investigator stated,

"Today's study is one of a series in which you two will be brainstorming together. In this first study you will not be interacting with one another. In subsequent meetings, however, you will be working together to produce ideas as a pair. We will contact you in the a few days to schedule the subsequent brainstorming sessions." In the no anticipation of future interaction condition the researcher told participants, "Today's study is short and simple, I will first be assessing your level of attitude similarity. Then I will have you brainstorm two topics. After you have produced ideas for both issues, we're done!"

After the brainstorming instructions, participants and confederates completed an attitude questionnaire and the researcher asked them to take out their examination booklets to record their brainstorming responses. Participants reported that they did not remember receiving an email and that they did not have an exam booklet. Confederates had their own booklet (ostensibly a necessity they were informed of via email) as well as an extra. The location of the extra booklet constituted the favor cost induction.

In the low cost induction confederates reached into their backpack, handed the extra booklet to participants and said, "Here ya go. I bought an extra one. You can use it." After being thanked, confederates said, "You're welcome," and reseated. In the high cost induction, confederates said, "You know, I have an extra one in my car. I'll run out and grab it for you. You can use that one." The researcher said, "I'm not sure we have time for that." Confederates replied, "I can run." The researcher said, "Ok, just hurry we're really short on time." Confederates then rushed out to grab the extra examination booklet. Confederates returned three minutes later breathing heavily from running, handed the examination booklet to participants and said, "Here you go." After being thanked confederates said, "You're welcome," and took a seat. In both cases confederates

refused any offer by participants for repayment.

After the favor cost induction the researcher began the brainstorming sessions. He provided participants and confederates with the first of two problems and instructed them to produce independently as many ideas as possible. Pending completion the researcher returned and presented the second problem. He allowed participants and confederates three minutes to brainstorm solutions to each of the problems. Upon completion of the second brainstorming session the researcher returned, thanked them for their participation, and prepared to dismiss them. Before dismissing them he said, "You know, I wanted to ask you guys something. I am doing another study on the impact of favors. I want to know why people choose to do them and what it makes people feel like to receive them. I am looking for real life instances of favor giving. You (looking toward the confederate) gave him/her (looking toward the participant) a favor by giving him/her an exam booklet. Would you two mind completing a questionnaire for this other study before you leave? It is very short and your responses will remain completely confidential." All participants assented to completing the questionnaire.

The researcher exited and returned with the questionnaire. This instrument included measures of six constructs: gratitude, obligation, enlightened self-interest, positive affect, negative affect, and psychological discomfort. The latter three were included to assess nomothetically distinctions between gratitude, obligation, and enlightened self-interest. As the researcher handed out the questionnaires they asked participants and confederates to respond honestly and reminded them that he would treat their responses confidentially.

In both control conditions participants did not receive a favor. The anticipation of

future interaction inductions paralleled those employed in the favor conditions. In both control conditions the researcher provided the confederate and participant with examination blue books to record their brainstorming ideas. In addition, gratitude, obligation, enlightened self-interest, positive and negative affect, and psychological discomfort were not measured in the no favor controls to prevent heightened suspicion.

Pending completion of the gratitude and obligation measure the researcher dismissed confederates and participants. After exiting the lab confederates made the compliance-gaining request, stating, "Hey can I ask you something. I'm selling raffle tickets for my old high school. The tickets cost $1.00 each and the prize is a new DVD player. Would you like to buy some? If you don't have the money now, you can pay me later." The number of raffle tickets participants agreed to purchase constituted the measure of compliance. Immediately following a response from participants, confederates signaled to the researcher who then asked participants to return to the laboratory because he had forgotten to provide some information. At this point the researcher debriefed, pledged to secrecy, and dismissed participants.

Instrumentation

Obligation. Obligation was measured using a six item, 7-point, Likert measure. Items included, "After receiving the favor, I felt pressure to do something in return" and "I felt that I owed the person who did a favor for me." Obligation items were scored such that the lowest score (strongly disagree) represents an absence of obligation and the highest score (strongly agree) represents extremely high obligation. The midpoint of the scale was labeled "neutral" and therefore represents moderate amounts of obligation. All items subsequent were measured in exactly the same fashion. Overall the mean was

moderate ($M = 4.08$, $SD = .96$). Standardized item alpha for the scale was .87.

Gratitude. Gratitude was measured with four, seven-point, Likert-type items. Items included, "I felt thankful toward my favor-doer" and "I felt grateful toward the person who did the favor for me." The mean was high ($M = 5.86$, $SD = .81$). Standardized item alpha was computed and found to be .80.

Enlightened self-interest. Enlightened self-interest was measured using a four item, 7-point, Likert measure. Items included, "I was worried that people would think I was a bad person if I did not do something in return" and "I felt I had to reciprocate because that would be most beneficial for me in the end." The mean was low ($M = 2.90$, $SD = 1.13$). Standardized item alpha for the scale was .84.

Positive affect. Positive affect was measured using a one-item, 7-point, Likert measure. The item stated, "I felt generally positive after receiving the favor." The means was high ($M = 5.94$, $SD = .77$).

Negative affect. Negative affect was measured using a one-item, 7-point, Likert measure. The item read, "I felt generally negative after receiving the favor." The mean was low ($M = 1.73$, $SD = .69$).

Psychological Discomfort. Discomfort was measured using a one-item, 7-point, Likert measure. The item read, "I felt somewhat uncomfortable after receiving the favor." The mean was low ($M = 3.03$, $SD = 1.59$).

Compliance. The number of raffle tickets participants verbally agreed to buy from the confederate constituted the measure of compliance. An increase in the number of tickets purchased represented increased compliance. The mean tickets purchased was low ($M = 1.04$, $SD = 1.16$).

Main Experiment Results

Of the 160 participants five reported feeling suspicious of the confederate and two insisted on repaying the confederate before they could make the compliance gaining request. Subsequent analyses do not include these seven participants.

Evaluation of the measurement model

Confirmatory factor analysis was employed to test a seven factor measurement model containing gratitude, obligation, enlightened self interest, positive affect, negative affect, psychological discomfort, and compliance. Small errors between predicted and observed correlations in the tests of internal consistency (where possible) and parallelism led to the conclusion that the data were consistent with the hypothesized seven-factor model.

Correlational analyses were undertaken to assess the degree to which gratitude and obligation reflected positive and negative affect or a state of psychological discomfort. All correlations have been corrected for attenuation due to error of measurement. The correlations between gratitude and positive affect [$r = .37$, P ($.17 \leq \rho \leq .57$) $= .95$], gratitude and negative affect [$r = -.39$, P ($-.59 \leq \rho \leq -.19$) $= .95$], and gratitude and discomfort [$r = .13$, P ($-.09 \leq \rho \leq .35$) $= .95$] support the notion that participants experienced gratitude as a predominantly positive affective state that was not related to psychological comfort.

The relationships between obligation and positive affect [$r = -.18$, P ($-.38 \leq \rho \leq -.02$) $= .95$], obligation and negative affect [$r = .06$, P ($-.16 \leq \rho \leq .28$) $= .95$], obligation and discomfort [$r = .35$, P ($.16 \leq \rho \leq .54$) $= .95$] suggest that people probably do not experience obligation as an affect, but rather as a psychologically uncomfortable state.

26

Similar patterns emerged when examining the relationship between enlightened self-interest and positive affect [r = .04, P (-.18 ≤ ρ ≤ .26) = .95], enlightened self-interest and negative affect [r = .13, P (-.15 ≤ ρ ≤ .35) = .95], and enlightened self-interest and discomfort [r = .28, P (.08 ≤ ρ ≤ .48) = .95]. Like obligation, enlightened self-interest was not related to affect, but was related to a psychological state of discomfort.

Induction checks

Initial examination of the data reveals patterns similar to those from the pretest. After receiving a favor, participants reported feeling high levels of gratitude (across all four favor conditions, M = 6.41, P(6.31 ≤ μ ≤ 6.51) = .95). Similarly, after receiving a favor participants reported moderate levels of obligation (across all favor conditions, M = 4.18, P(3.94 ≤ μ ≤ 4.42) = .95). Participants reported low levels of enlightened self-interest [M = 2.89, P(2.65 ≤ μ ≤ 3.13) = .95] in the main experiment. One can see descriptive statistics for all three mediating variables in Table 3. Before assessing the mediating roles of these three variables, the impact of anticipation of future interaction and favor cost on gratitude, obligation, and enlightened self-interest was assessed.

A two-way independent groups analysis of variance was employed to test the effectiveness of the cost and anticipation of future interaction inductions on gratitude, obligation, enlightened self-interest and compliance. As predicted the cost induction had a positive effect on gratitude [F(1,96) = 7.79, p = .006, r = .28] and neither the anticipation induction [F(1,96) = .15, p = .70, r = .04] nor the cost by anticipation interaction [F(1,96) = 1.42, p = .24, r = .12] had a substantial or statistically significant effect on gratitude. In terms of obligation, neither the cost induction [F(1,96) = .07, p = .80, r = .03], the anticipation induction [F(1,96) = .46, p = .50, r = .07], nor the cost by

anticipation interaction [$F(1,96) = .34, p = .56, r = .06$] had a substantial or statistically

significant effect on obligation. Anticipation of future interaction increased enlightened

self interest as expected [$F(1,96) = 5.34, p = .02, r = .23$]. Cost, however, did not increase

enlightened self-interest [$F(1,96) = .30, p = .59, r = .06$] nor did the anticipation by cost

interaction [$F(1,96) = .02, p = .89, r < .001$].

Table 3

Main Experiment: Gratitude, Obligation, and Enlightened Self-Interest Descriptives

Gratitude	Low favor cost	High favor cost
Anticipation	6.35 (.49)	6.50 (.50)
No anticipation	6.20 (.42)	6.58 (.45)
Obligation		
Anticipation	4.17 (1.36)	4.37 (1.19)
No anticipation	4.14 (1.01)	4.06 (1.26)
Enlightened Self-Interest		
Anticipation	3.09 (1.24)	3.24 (1.25)
No anticipation	2.59 (.85)	2.68 (1.09)
Positive affect		
Anticipation	5.74 (.86)	5.91 (.85)
No anticipation	5.75 (.61)	6.31 (.62)
Negative affect		
Anticipation	1.69 (.70)	1.70 (.47)
No anticipation	1.92 (.83)	1.62 (.70)
Psychological discomfort		
Anticipation	3.52 (1.78)	3.04 (1.43)
No anticipation	3.25 (1.57)	2.39 (1.42)

Results from the two-way independent groups ANOVA to assess the effect of the

cost and anticipation of future interaction inductions on compliance indicated no

substantial main effect for anticipation [$F(1,97) = .21, p = .65, r = .04$], cost [$F(1,97) =$

$.11, p = .74, r = .03$] or anticipation by cost interaction [$F(1,97) = .37, p = .55, r = .06$].

These findings were not surprising given the predicted mediated nature of the relationship.

A one-way independent groups ANOVA was undertaken to determine if the receipt of a favor (compared to control conditions) affected compliance rates. Means fell in the expected direction such that the mean for favor conditions [$M = 1.25$, $P(1.01 \leq \mu \leq 1.49) = .95$] exceeded significantly the mean for the no favor conditions [$M = .68$, $P(.39 \leq \mu \leq .97) = .95$]. Results from the ANOVA indicated a substantial and statistically significant effect for favor [$F(1,152) = 8.93$, $p = .003$, $r = .24$].

A test of the effect of a favor

Recall the mediating variables of gratitude and obligation and enlightened self-interest were not measured in the no favor conditions of the main experiment. These values could be estimated, however, with data from the pretest. Therefore to estimate of the effect of favor on these gratitude, obligation, and subsequent compliance (see Figure 2), the pretest correlations between favors and gratitude [$r = .79$, $P(.69 \leq \rho \leq .89 = .95$] and favors and obligation [$r = .08$, $P(-.17 \leq \rho \leq .33 = .95)$] were inserted in to the model. This method did not allow an estimate of enlightened self-interest variable because it was not measured in the pretest. Figure 2

*Main Experiment: The Effect of a Favor Model*
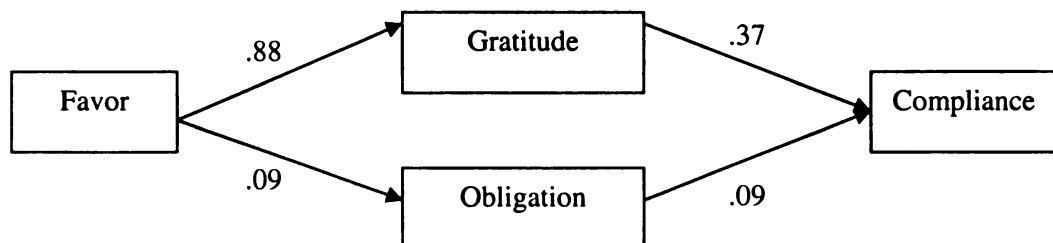
A path analysis of the model presented in Figure 2 which posited that favors affect obligation and gratitude which both subsequently increase compliance failed. It failed specifically because the path coefficients between favors and obligation [$r = .09$, $P(-.09 \leq \rho \leq .27) = .95$] and obligation and compliance [$\beta = .09$, $P(-.09 \leq \rho \leq .27) = .05$] were both within sampling error of zero. Therefore, obligation was dropped from the model and the revised model reexamined.

Examination of the simple causal string from favors to gratitude, and gratitude to compliance (see Figure 3) revealed a small error between observed and predicted correlations (-.07) which fell well within sampling error of zero [$X^2(1)= .40$, $p = .53$]. These findings suggested that the data fit the revised model well. Certainly one should use caution when interpreting these analyses. Participants in the no favor conditions of the main experiment did not respond directly to measures of gratitude and obligation. Nevertheless, the no favor conditions in the main experiment approximately closely the no favor conditions in the pretest. In addition, the gratitude and obligation means from the pretest approached those from the main experiment. Further, the large discrepancy between the favors-gratitude and the favors-obligation relationships and the close fit of the data with the simple causal string make these findings noteworthy.

Figure 3

Main Experiment: The Effect of a Favor (Revised Model) Results

$X^2(1) = .40$, p = .53
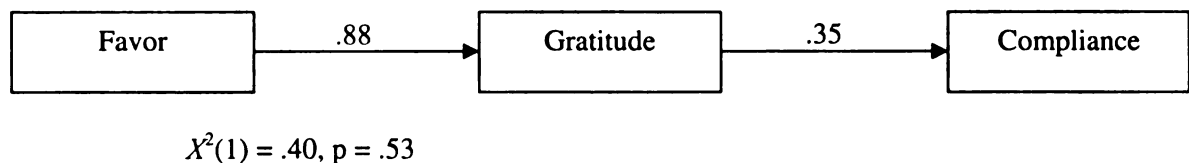
Evaluation of the Proposed Model

The standardized item alpha estimates computed earlier were used to correct all correlations for attenuation due to error of measurement. The corrected correlations were then used to test the fit of the proposed model. One can see all of the corrected and uncorrected correlations in Table 4.

Table 4

Main Experiment: Raw Correlation Matrix

	Anticipation	Cost	Gratitude	Obligation	ENSI	Comply
Anticipation		.	-.03	.08	.25	-.08
Cost	.		.31	.02	.06	.03
Gratitude	.03	.28**		.29	.02	.30
Obligation	.07	.02	.24**		.59	.02
ENSI	.23*	.05	.02	.50**		.01
Comply	-.08	.03	.27**	.02	.01	

Note: The raw correlations are presented in the bottom of the matrix. The correlations corrected for attenuation due to measurement error are presented in the top of the matrix.

The proposed model posits that anticipation of future interaction increases obligation and enlightened self-interest. It also posits that favor cost increases obligation and gratitude and that subsequent gratitude, obligation, and enlightened-self interest drive compliance. One can view the path coefficients used to test this model in Table 5.

Figure 4 makes it clear that many relationships did not reach a substantial size and were not statistically significant. The path coefficients linking anticipation of future interaction and obligation [r = .08, P (-.14 ≤ ρ ≤ .30) = .95], favor cost and obligation, [r

$=.02$, P $(-.20 \leq \rho \leq .24) = .95$], enlightened self-interest and compliance, [$\beta = .12$, P $(-.15 \leq \beta \leq .39) = .95$], compliance and obligation, [$\beta = -.20$, P $(-.53 \leq \beta \leq .13) = .95$] did not reach traditional levels of significance or substantial size. Furthermore, non-linearity could not explain any of these small effect sizes.
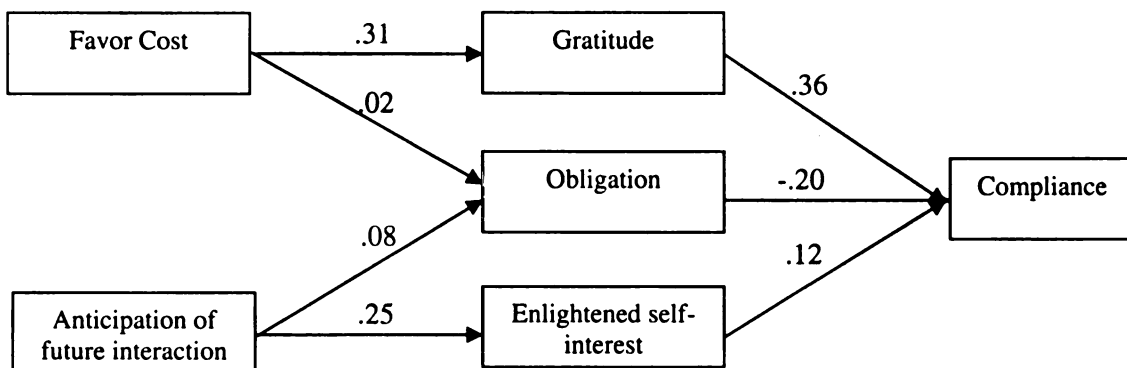
Table 5

Main Experiment: Path Coefficients Used to Test Predicted Model

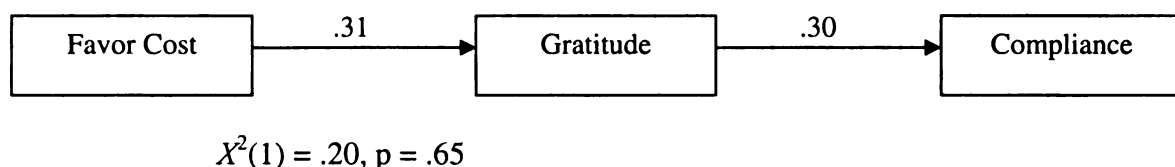|	Anticipation	Cost	Gratitude	Obligation	ENSI	Comply
Anticipation						
Cost						
Gratitude		.31				
Obligation	.08	.02				
ENSI	.25					
Comply			.36	-.20	.12	

Figure 4

Main Experiment: Proposed Model Results

$X^2(7) = 14.90$, p $= .04$

Based on these findings, subsequent path analyses do not include anticipation of future interaction, enlightened self-interest, or obligation. Anticipation of future interaction was eliminated because it was unrelated to compliance and failed to be related to a mediator that had a substantial effect on compliance. Enlightened self-interest was eliminated because it had no effect on compliance. Obligation was removed because it had only a negligible effect on compliance (interestingly in the direction opposite from that predicted) and because obligation was not driven by either independent variable. The remaining variables formed a simple causal string from favor cost to gratitude to compliance. Figure 5 shows these relationships.

The data were examined for consistency with the revised path model (paths are corrected for attenuation due to measurement error). The path coefficient linking favor cost and gratitude was .31 P (.09 $\leq \rho \leq$ .53) = .95. The path coefficient linking gratitude and compliance was .30, P (.08 $\leq \rho \leq$ .52) = .95. Both effects fell in the predicted direction, passed traditional tests of significance and approached a reasonable effect size. Moreover, errors between the predicted and observed unconstrained correlation were small (-.06) suggesting that the data were consistent with the simple causal string [$X^2(1)$ = .20, p = .65]. This model can be seen in Figure 5.

Figure 5

Main Experiment: Revised Model Result

$X^2(1)$ = .20, p = .65

Main Experiment Discussion

The tested model proposed that favor cost would increase obligation and gratitude, whereas the anticipation of future interaction induction would increase obligation and enlightened self-interest. Subsequently it was hypothesized that gratitude, obligation, and enlightened self-interest would predict compliance after a favor. In this discussion section I review the major findings from the test of this model, place it in the context of previous pregiving and reciprocity studies, discuss the limitations, propose future avenues of research, and advance three conclusions

Overview of Findings

First, findings suggest that gratitude and obligation form two factors. A good deal of evidence supports this claim. In particular, findings from two confirmatory tests of the factor structure found the hypothesized two- (gratitude and obligation in pretest) and three-factor (gratitude, obligation, and enlightened self-interest in main experiment) solutions to be consistent with the data. Additionally, data from this study found that gratitude, obligation, and enlightened self-interest were related to measures of positive, negative affect, and psychological discomfort and in the directions predicted by their definitions. That is, those who felt more grateful also reported a more positive and a less negative mood and did not experience psychological discomfort. Whereas those who felt more obligated and enlightened self-interest experienced increased uncomfortable psychological states and did not report systematically any change in positive or negative affect. Given gratitude and obligation's history of conflation, these constitute notable findings and provide some evidence that initial a priori conceptions of these two constructs were valid.

It is also of interest that neither favor cost, anticipation of future interaction, nor the anticipation by cost interaction had a substantial effect on obligation. Recall the main experiment was designed with the primary goal of inducing obligation. Nevertheless, the majority of participants reported experiencing little or no obligation or enlightened self-interest and more importantly obligation did not vary with different levels of cost or anticipation. These findings replicate pretest findings and provide additional evidence that obligation is not a primary response to favors among strangers.

Perhaps most interesting, neither obligation nor enlightened self-interest mediated the relationship between favors and compliance. This challenges most all previous predictions concerning the critical role of obligation in explaining human reciprocal behavior. Moreover, after removing both obligation and enlightened self-interest from the path model, gratitude accounted for all of the variance in compliance attributable to favor cost. These data lead to the conclusion that the affective experience of gratitude overpowers the aversive cognitive state of obligation, a conclusion very much at odds with existing research and beliefs.

The favors-compliance effect size constitutes one other interesting finding. In the main experiment, the correlation of pregiving message with compliance was .24 [P (.09 $\leq$ $\rho \leq$ .39) = .95]. Boster, Rodriguez, Cruz, and Marshall (1995) found a relationship between pregiving and compliance among strangers larger than that in the present study [r = .46, P (.18 $\leq \rho \leq$ .73) = .95]. Regan (1971) also found a larger relationship between pregiving and compliance among strangers [r = .43, P (.24 $\leq \rho \leq$ .60) = .95]. The present effect size, however, still falls within the 95% confidence intervals of these two findings and therefore does not exceed what one would expect from sampling error. This is

probably due primarily to the fact that Regan and Boster et al. (1995) had relatively small sample sizes (n = 77 and n = 32 respectively).

Despite statistical insignificance, one should note the sizeable difference in effect size. Admittedly speculative, these findings may have emerged due to differences in the compliance gaining request. Regan and Boster et al. employed a written request, whereas the present study used a verbal, face-to-face request. One may also argue reasonably that the difference in favor type produced these differences. Regan and Boster et al. used an unsolicited soda as the favor. In the present study the unsolicited favor involved helping someone in need by offering an examination bluebook. Providing a bluebook to a fellow student in need may differ from giving someone a soda without a voiced need from the beneficiary, although the bluebook favor did not differ from the soda favor in terms of their effect upon gratitude and obligation.

Moreoever the effect size from the main experiment was consistent with the pregiving-compliance effect size [$r = .19$, P ($.04 \leq \rho \leq .34$) $= .95$] in at least one other study using a soda favor and a written compliance-gaining request (Whatley, Webster, Smith, & Rhodes, 1999). Notably, the effect reported by Whatley, et al. (1999) is more stable due to the larger sample size (n = 150).

Limitations and future research

One potential explanation for variance in gratitude, obligation, and enlightened self-interest unaccounted for in the present study may come from individual differences (Cotterell, Eisenberger, & Speicher, 1992; Gallucci & Perugini, 2003; McCullough, Emmons, & Tsang, 2002). Put differently, it may be true that people vary in the degree to which they live a life marked by gratitude (e.g., a grateful disposition) or obligation (e.g.,

an exchange based disposition). Undoubtedly these data cannot speak to these matters. Plans are underway to examine the role that individual differences plays on these relationships.

Missing induction checks constitute one other weakness of the present study. One could have more confidence in these results with a check on the inductions of anticipation of future interaction and favor cost. Asking participants to note how much of a cost they perceived the high cost condition versus the low cost condition. Future research should include such checks or pretest them directly. Nonetheless the lack of these induction checks does not infirm the unique contribution made in this work. These findings imply a set of extremely intriguing conclusions that defy previous assumptions about reciprocal behavior.

It may be argued that there are alternative ways to reduce obligation. Certainly it cannot be argued that complying with subsequent requests is the only way in which to reduce a sense of obligation. One particularly interesting possibility is obligation can be reduced simply by uttering the phrase, "Thank you" which could explain the lower than expected obligation means. Perhaps participants not allowed the opportunity to say thank you would feel higher levels of obligation than those in the present study. This argument makes two suggestions. One, that "thank you" dispels feelings of obligation but does not dispel feelings of gratitude. Two, that the low to moderate levels of obligation found in this study render obligation useless as a predictor of compliance; that is, obligation must be high for it to affect compliance – both possible, but not extremely plausible claims.

Conclusions

Results from this investigation suggest three general conclusions that challenge

current practice and principles. First, gratitude and obligation merit distinction. Second, scholars should critically evaluate assumptions about obligation and the norm of reciprocity. Third, gratitude deserves increased attention in explanations for reciprocal behavior.

Findings indicate that obligation and gratitude form two distinct constructs. In addition, enlightened self-interest forms a third construct. Therefore, one can conclude from these findings that scholars should begin to speak and write about gratitude, obligation, and enlightened self-interest with greater conceptual clarity. This distinction will help advance the study of reciprocal behavior and increase our understanding of how favors and pregiving messages operate to increase compliance.

A number of studies (of which this is the fourth) contest the ubiquity of the obligation explanation. Boster, Rodriguez, Cruz, and Marhsall (1995) found the obligation explanation only viable among strangers, not friends. Boster, Fediuk, and Kotowski (2001) found the obligation explanation was only viable with prosocial, not anti-social requests. Goei, Lindsey, Boster, Skalski, and Bowman (2003) found that, with some methodological improvements, the obligation explanation could not explain the effect of favors on compliance even among strangers with pro-social requests.

The results from this study challenge the obligation explanation even further. These findings suggest that obligation does not explain increased compliance from a pregiving message even under conditions designed expressly to foster obligation. Specifically, this study demonstrates that when benefactors go out of their way (high favor cost) and when beneficiaries expect to interact directly with their benefactor in the immediate future (anticipation of future interaction) obligation is still not a viable

explanation for reciprocal behavior. These findings contradict the predictions and conclusions of several researchers concerning the role of the obligation explanation (e.g., Boster, Rodriguez, Cruz, & Marshall, 1995; Gouldner, 1960; Greenberg & Frisch, 1972; Homans, 1958; Regan, 1971; Tesser, Gatewood, & Driver, 1968; Whatley, Webster, Smith, & Rhodes, 1999; Wilke & Lanzetta, 1970).

Gratitude, on the other hand, did mediate the pregiving-compliance relationship. Results from this study corroborate recent claims acknowledging the significant role gratitude plays in the reciprocal patterns of daily behavior (e.g., Emmons & Crumpler, 2000; Lazarus & Lazarus; 1994; McCullough, Kilpatrick, Emmons, & Larson, 2001). Gratitude is mysteriously absent from our social psychological, psychological, sociological, and communication texts and journals. These results, however, suggest that gratitude no longer be ignored. Not only did gratitude mediate the favors-compliance relationship, it did so both in the absence and presence of obligation and enlightened self-interest effects.

Despite failure of the proposed model, specifically the failure of obligation or enlightened self-interest as mediators to the favors-compliance relationship, it is still premature to assert the denouement of the obligation explanation or the norm of reciprocity. It remains to be seen if obligation or enlightened self-interest predicts reciprocal behavior after a pregiving message in other more precise contexts or if methodological issues in the present study obfuscate the true mediating role of obligation or enlightened self-interest.

The available data taken as a whole, however, make a strong case; obligation does not predict reciprocal behavior in many instances of strangers presented with prosocial

.

requests after a favor. Given the lack of power inherent to the obligation explanation under these conditions the ubiquity of Gouldner's (1960) Norm of Reciprocity is less plausible. Moreover, consistent with recent claims of affect-driven (i.e., liking) reciprocal behavior (Goei, et al., 2003), gratitude provides us with a viable alternative to the obligation explanation and should be pursued further.

APPENDICES

Appendix A

Gratitude scale

Answer the following questions about your feelings toward the person who gave you the favor after you received the favor. Each of these questions pertains to your feelings toward the person who gave you the favor

1. I felt thankful.

2. I felt grateful.

3. I appreciated the actions of the person who did me a favor.

4. I felt a deep sense of gratitude after receiving the favor.

Appendix B

Obligation scale

Answer the following questions about your feelings toward the person who gave you the favor after you received the favor. Each of these questions pertains to your feelings toward the person who gave you the favor.

1. I felt obligated to return the favor.

2. I didn't feel that I owed anything at all to the person who did me a favor.

3. I felt indebted to the favor-doer.

4. After receiving the favor, I felt pressure to do something in return.

5. I felt that I absolutely had to something in return for the favor they gave me.

6. I had no choice. I simply had to do something for the other.

Appendix C

Enlightened self-interest scale

Answer the following questions about your feelings toward the person who gave you the favor after you received the favor. Each of these questions pertains to your feelings toward the person who gave you the favor.

1. I felt that I should do something in return for the favor because it would help me.

2. I had no choice. I simply had to do something in return or risk hurting our relationship.

3. I felt I had to reciprocate because that would be most beneficial for me in the end.

4. I thought that if I did something in return that it would make me look better.

REFERENCES

References

Boster, F. J., Rodriguez, J. I., Cruz, M. G., & Marshall, L. (1995). The relative effectiveness of a direct request message and a pregiving message on friends and strangers. *Communication Research, 22*(4), 475-484.

Boster, F. J., Fediuk, T., & Kotowski, M. R. (2001). The effectiveness of an altruistic appeal in the presence and absence of favors. *Communication Monographs, 68*(4), 340-346.

Carlson, M., Charlin, V., & Miller, N. (1988). Positive mood and helping behavior: A test of six hypothesis. *Journal of Personality and Social Psychology, 55*(2), 211-229.

Cialdini, R. B. (2001). *Influence: Science and practice* (4th ed.). Needham Heights, MA: Allyn & Bacon.

Cotterell, N., Eisenberger, R., & Speicher, H. (1992). Inhibiting effects of reciprocation wariness on interpersonal relationships. *Journal of Personality and Social Psychology, 62*(4), 658-668.

De Cooke, P.A. (1992). Children's understanding of indebtedness as a feature of reciprocal help exchanges between peers. *Developmental Psychology, 28*(5), 948-954.

Emmons, R.A. & Crumpler, C.A. (2000). Gratitude as a human strength: Appraising the evidence. *Journal of Social and Clinical Psychology, 19*(1), 56-69.

Goei, R., Massi, L., Boster, F.J., Skalski, P., & Bowman, J. (2003). Reconsidering the effects of favors and liking on compliance. *Communication Research, 30*(2), 178-197.

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*, 161-178.

Greenberg, M.S., & Frisch, D.M. (1972). Effect of intentionality on willingness to reciprocate a favor. *Journal of Experimental Social Psychology, 8*(2), 99-111.

Greenberg, M.S., & Shapiro, S.P. (1971). Indebtedness: An adverse aspect of asking for and receiving help. *Sociometry, 34*(2), 290-301.

Henry, K.B. (2000). Perceptions of cooperation in a longitudinal social dilemma. *Small Group Research, 31*(5), 507-527.

Homans, G.C. (1958). Social behavior as exchange. *American Journal of Sociology, 63*(6), 597-606.

Hunter, J. E., & Gerbing, D. W. (1982). Unidimensional measurement, second order factor analysis and causal models. In B.M. Staw & L.L. Cummings (Eds.), *Research in organizational behavior* (Vol. 4, pp. 267-320). Greenwich, CT: JAI Press.

Hwang, K. (1987). Face and favor: The Chinese power game. American *Journal of Sociology, 92*(4), 944-974.

Lazarus, R.S., & Lazarus, B.N. (1994). *Passion and reason: Making sense of our emotions.* New York: Oxford University Press.

Marwell, G., & Schmidt, D. R. (1967). Dimensions of compliance-gaining behavior: An empirical analysis. *Sociometry, 30,* 350-364.

McCullough, M.E. Kilpatrick, S.D., Emmons, R.A., & Larson, D.B. (2001). Is gratitude a moral affect? *Psychological Bulletin, 127*(2), 249-266.

Nisbett, R.E., & Bellows, J. (1977). Verbal reports about causal influences on social judgments: Private access versus public theories. *Journal of Personality and Social Psychology, 35*(9), 613-624.

Perugini, M., & Gallucci, M. (2001). Individual differences and social norms: The distinction between reciprocators and prosocials. *European Journal of Personality, 15*(1, Special issue), 19-35.

Regan, D. T. (1971). Effects of a favor and liking on compliance. *Journal of Experimental Social Psychology, 7*(6), 627-639.

Reisenzein, R. (1994). Pleasure-arousal theory and the intensity of emotions. *Journal of Personality and Social Psychology, 67*(3), 525-539.

Russell, J.A., & Paris, F.A. (1994). Do children acquire concepts for complex emotions abruptly? *International Journal of Behavioral Development, 17*(2), 349-365.

Rutte, C.G, & Wilke, H. (1992). Goals, expectations and behavior in a social dilemma situation. In Liebrand, W.B.G., Messick, D.M., & Wilke, H.A.M. (Eds), *Social dilemmas: Theoretical Issues and Research Findings. International Series in Experimental Social Psychology.* (pp. 289-305). Elmsford, NY, US: Pergamon Press, Inc.

Smith, A. (1790/1999). The Theory of Moral Sentiments.

Tesser, A., Gatewood, R., & Driver, M. (1968). Some determinants of gratitude. *Journal of Personality and Social Psychology, 9*(3), 233-236.

Walster, A., Berscheid, E. & Walster, G.W. (1973). New directions in equity research.

Journal of Personality and Social Psychology, 25(2), 151-176.

Whatley, M. A., Webster, J. M., Smith, R. H., & Rhodes, A. (1999). The effect of a favor on public and private compliance: How internalized is the norm of reciprocity? *Basic and Applied Social Psychology, 21*(3), 251-259.

Wilke, H., & Lanzetta, J.T. (1970). The obligation to help: The effects of amount of prior help on subsequent helping behavior. *Journal of Experimental Social Psychology, 6*(4), 488-493.