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## Obtaining a Behavioral Measure of Sacrifice without Assessing Romantic Couples

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### ABSTRACT

*Often in romantic relationships, conflict arises which may be resolved when one partner gives up their own self-interests for the well-being of their partner or relationship. Past research has focused on sacrifice through self-reported measures of hypothetical behavior and measures involving both partners in the relationship. The current study sought to create an inexpensive behavioral measure of sacrifice in which only one partner was required to participate. Participants across two samples of college students answered surveys about their relationship and were then given the option to enter either themselves or their partners into a free raffle for a magazine subscription. Results indicated that greater commitment predicted sacrificial behavior; however, gender differences in sacrificial behavior were inconsistent between the two samples. The current study suggests that behavioral measures, such as a magazine raffle, can be cost-effective and efficient ways to measure sacrifice without relying on hypothetical situations or self-report.*

## INTRODUCTION

Rarely are romantic partners perfectly compatible. There will inevitably be instances in which an individual's wishes and desires conflict with those of the partner. Although a variety of methods exist for resolving such conflict (Peterson, 1983), one method is when an individual engages in a pro-relationship behavior and sacrifices his or her self-interests. By definition, willingness to sacrifice is "the propensity to forego immediate self-interest to promote the well-being of a partner or relationship" (Van Lange, Rusbult et al., 1997, p. 1374).

Willingness to sacrifice has consistently been associated with commitment, such that highly committed individuals are more willing to sacrifice than less committed individuals (e.g., Mattingly & Clark, in press; Van Lange, Agnew, Harinck, & Steemers, 1997; Van Lange, Rusbult et al., 1997). Interdependence theory posits that commitment predicts individuals' pro-relationship behaviors (e.g., sacrificing) because committed individuals experience a transformation of motivation in which partner and couple interests are given preference ahead of self-interests (Agnew & Etcheverry, 2006; Agnew, Van Lange, Rusbult, & Langston, 1998; Kelley & Thibaut, 1978; Rusbult & Van Lange, 2003). One such reason for this transformation is that individuals stand to lose a considerable amount if the relationship were to end, ranging from investments such as time, effort, and material resources (Le & Agnew, 2003; Rusbult, 1980) to components of their self-concepts (Lewandowski, Aron, Bassis, & Kunak, 2006).

In addition to commitment, gender differences in willingness to sacrifice have emerged. Consistently, men report a greater willingness to sacrifice than do women (Mattingly & Clark, in press; Powell & Van Vugt, 2003; Van Lange, Rusbult et al., 1997). Although it is still unclear why this gender difference exists, preliminary research indicates that this could be due to men placing less value on their self-interests, which in turn makes sacrificing these self-interests less costly to the self (Mattingly & Clark, in press).

One limitation of the previous work on sacrificing, however, is the primary reliance on hypothetical situations and self-report measures. For example, one common methodology is that of Van Lange, Rusbult, and colleagues (1997), in which participants list the four most important activities in their life other than their romantic relationship and then indicate how willing they would be to sacrifice each activity in order to maintain their relationship. Other research has provided a set of scenarios and had participants indicate their willingness to sacrifice self-interests in each situation (Mattingly & Clark, in press; Powell & Van Vugt, 2003). Such methodologies implicitly assume there to be a strong relationship between one's attitude (i.e., willingness) and subsequent behavior; however, such an assumption is not always accurate as attitudes are only predictive of behavior under certain conditions (e.g., Davidson & Jaccard, 1979; Zanna & Fazio, 1982). Yet another methodology is to have participants record their sacrificial behavior in a daily diary (Impett, Gable, & Peplau, 2005). Although such methodologies are an improvement from the hypothetical situation paradigm, the diary methodologies still require participants to be truthful in their responses, in turn leading the methodology to be inferior to true behavioral measures.

To date, Van Lange, Rusbult and colleagues (1997; Study 4) have developed the only known behavioral measure of sacrifice. After completing questionnaires during one session,

couples returned to the laboratory to complete the sacrificing task. The couple was taken to separate rooms, at which time they were instructed to step up and down a stair for 60 s. Then, each participant was allowed to do the stair-step task a second time, but for every step taken beyond that of the baseline established in the first trial, the partner would be given \$0.10. Although this provided a measure of behavioral sacrifice that was correlated with self-report measures of willingness to sacrifice, this procedure required both romantic partners to be present. Such a requirement is likely to have substantial time restrictions, as it would be considerably more difficult to schedule laboratory sessions in which both partners could attend as opposed to one of the partners. Additionally, depending on the reimbursement given to participants and the number of couples being recruited, there could be a considerable financial cost associated with this methodology (e.g., 50 couples who sacrifice a mean of 10 steps for their partner at a rate of \$0.10 would cost researchers \$100). Furthermore, it is unclear whether participants actually viewed this task as benefitting only the partner. It is possible that participants who won money for their partner were expecting that the partner would split the winnings with them [although the mean “winnings” reported by Van Lange, Rusbult et al. (1997) were only \$0.80].

Because of the limitations of prior methodologies for assessing willingness to sacrifice, we sought to develop a paradigm in the current study in which individuals’ actual sacrificial behavior could be assessed and thus be related to a variety of relational outcomes. Additionally, we developed this paradigm so that researchers could assess sacrificial behavior without requiring a romantic partner to be present, in turn improving the utility of the procedure. In order to validate this paradigm, we sought to determine whether this new measure of behavioral sacrifice would be associated with known correlates of sacrificial behavior. Based on previous research, we predicted that men would demonstrate greater sacrificial behavior (H1) and that commitment would be positively associated with sacrificing (H2).

## METHOD

### *Participants*

*Sample 1.* Fifty-one undergraduates (33 women, 18 men) currently involved in a romantic relationship were recruited from a moderate-sized Jesuit university in the Midwestern United States. The mean age of participants was 19.1 years ( $SD = 1.11$ ) and the mean relationship duration was 14.5 months ( $SD = 12.9$ ,  $Mdn = 9.5$ ). The majority of participants were Caucasian (70.6%), exclusively dating their partner (70.6%), not cohabitating (92.2%), and reported being in love (72.5%).

*Sample 2.* Sixty undergraduates (35 women, 25 men) currently involved in a romantic relationship were recruited from a small private university in the Midwestern United States. The mean age of participant was 19.6 years ( $SD = 4.51$ ) and the mean relationship duration was 22.7 months ( $SD = 18.7$ ,  $Mdn = 17.5$ ). The majority of participants were Caucasian (85.0%), exclusively dating their partner (76.7%), not cohabitating (90.0%), and reported being in love (95.0%).

## *Materials and Procedure*

*Commitment.* Participants first completed the 12-item Commitment Scale (Arriaga & Agnew, 2001), in which participants indicate their level of agreement with items on a 5-point scale (1 = *not at all true*, 5 = *extremely true*). An example item is “I am oriented toward the long-term future of this relationship (e.g., I imagine being with my partner several years from now).” The Commitment Scale demonstrated adequate reliability in both samples:  $\alpha = .88$  in Sample 1,  $\alpha = .84$  in Sample 2.

*Measure of sacrificial behavior.* After completing the Commitment Scale, participants were told that, in addition to receiving partial fulfillment of course requirements, a benefit of the study was that they could be entered into a free raffle for a \$25 magazine subscription of their choice. This raffle was ostensibly separate from the nature of the research study, as the experimenter explained that the raffle was a way for the researchers to thank participants for volunteering for the study. The experimenter explained that, because the study was about romantic relationships, participants could enter either themselves or their romantic partner into the raffle. Participants were then given a raffle form, which required the participant to indicate whether they were entering themselves or their partner and the corresponding contact information of the person being entered into the raffle. After the participant had completed the raffle form and had left the laboratory, the experimenter recorded participants’ responses. Participants who entered themselves into the raffle were coded as not sacrificing whereas those entering their partner were coded as sacrificing.

## **RESULTS**

### *Rates of Sacrificing*

Overall, there was a 31.4% rate of sacrifice in Sample 1 and a 30.0% rate of sacrifice in Sample 2. Contrary to H1, women (39.4%) sacrificed at a marginally higher rate than did men (16.7%) in Sample 1,  $\chi^2(1) = 2.79, p = .095$ . In Sample 2, however, H1 was supported. Men (44%) sacrificed at a significantly higher rate than did women (20%),  $\chi^2(1) = 4.00, p = .046$ .

### *Predicting Sacrificial Behavior*

To assess H2 (i.e., increased commitment would be associated with greater behavioral sacrifice), a binary logistic regression was conducted using participants’ mean commitment scores as the predictor variable and the dichotomous sacrifice variable (sacrifice vs. no sacrifice) as the criterion variable. Confirming predictions and replicating previous research, commitment was a significant predictor of sacrifice in Sample 1,  $Exp(B) = 2.73, p = .018$ . In other words, for each unit of increase on the Commitment Scale, individuals were 2.73 times more likely to sacrifice for their partner. These results were largely unaffected when controlling for gender:  $Exp(B) = 3.15, p = .014$ .

Similar results emerged for Sample 2. Commitment was a significant predictor of sacrifice,  $Exp(B) = 9.45, p = .017$ . In other words, for each unit of increase on the Commitment Scale, individuals were 9.45 times more likely to sacrifice for their partner. These results were largely unaffected when controlling for gender,  $Exp(B) = 11.79, p = .018$ . Taken together, it

appears that small to moderate increases in commitment increase one's sacrificial behavior substantially.

## DISCUSSION

Previous research demonstrates that gender and commitment are associated with individuals' willingness to sacrifice, but these studies have relied primarily on self-report measures of hypothetical behavior. There are theoretical limitations to these self-report measures (Zanna & Fazio, 1982). Even the one known behavioral measure of sacrifice is limited in that it requires romantic couples to participate simultaneously (Van Lange, Rusbult et al., 1997), a requirement that is costly in terms of time and money. Furthermore, there may be reason to suspect that one partner may have already sacrificed if he or she has agreed to attend a research study with his or her romantic partner. Thus, the primary goal of the current study was to develop a behavioral measure of sacrifice that is inexpensive and does not require both romantic partners to participate.

Across two samples, the current study clearly demonstrates that commitment is predictive of individuals' actual sacrificial behavior, which in turn supports the utility of the behavioral measure. As with self-report measures in the past, committed individuals were significantly more likely to make sacrifices for their romantic partner. The strength of this association, particularly in Sample 2, is quite remarkable and it raises the question as to whether commitment is a better predictor of actual sacrificial behavior than it is of self-reported or hypothetical willingness to sacrifice. Although the current study is unable to shed light on this question, such a possibility could (and perhaps should) be tested empirically.

What is unclear, however, is the relationship between gender and sacrificial behavior. In both samples, gender differences emerged, although these differences were only marginally significant in Sample 1. Curiously, the direction of these gender differences was reversed for the two samples – women sacrificed more than men in Sample 1 whereas men sacrificed more than women in Sample 2. Although Sample 2 replicates previous research and was the only sample in which these gender differences reached traditional levels of significance ( $\alpha = .05$ ), the contradicting findings between the two samples raises some questions regarding how robustly gender is associated with sacrificial behavior. One possibility is that in Sample 1, female participants may not have considered the magazine raffle to be a sacrifice at all. However, the current study did not assess the extent to which individuals perceived the magazine raffle to be a sacrifice, nor is it clear why one sample would consider the raffle to be a sacrifice (Sample 2) whereas the other sample did not (Sample 1). Future research could explore these and other possibilities to further clarify these contradictory findings.

Certainly, the magazine raffle paradigm is unlikely to simulate the full range of conflicts or discrepancies that couples encounter. However, the raffle was chosen as a behavioral measure of sacrifice for a variety of reasons. First, although such a raffle is a minimal sacrifice, sacrifices are rarely as severe as foregoing one of the most important activities in one's life, as the Van Lange, Rusbult et al. (1997) methodology requires, or as idiosyncratic as donating a kidney, which is one of the scenarios utilized by Powell and Van Vugt (2003). That is, sacrifices that are smaller in magnitude are likely to be more representative of the types of conflicts that couples

encounter on a day-to-day basis (e.g., forgoing an action movie and watching a love story instead; agreeing to have chicken for dinner instead of beef). Thus, assessing individuals' sacrificial behaviors in these smaller conflicts is likely to provide valuable insight into the relationship maintaining nature of sacrifice. A second strength of the current paradigm is that it only benefits one partner. On the surface, it may seem that any sort of raffle would suffice. However, participants who win a sum of money could relatively easily share the winnings with their partner (or ask the partner to share the winnings with them). This would in turn render the sacrifice meaningless, and it is arguable whether entering the partner's name should even be classified as a sacrifice if the intent was to mutually profit. Although it is not necessary for the raffle prize to be a magazine subscription, it is paramount that the prize only benefits one individual. For example, the raffle prize could also be a gift card to a specific store (e.g., pilot testing may reveal that some stores are preferred by men whereas other stores are preferred by women; in turn, participants would have to choose which store – male-specific or female-specific – they would like to choose for the raffle) or a store that has a more universal appeal to both genders (e.g., Wal-Mart, Target, shopping malls). Another variation on the raffle prize would be if both the participant and the partner were undergraduates at the same university, in which case the raffle may be for extra credit in a course, a gift card to the university bookstore, money added to one partner's university meal plan or spending account, among other options. A third strength of the raffle paradigm is that it does not require the participant's partner to be present. This in turn enables researchers to examine actual relational processes without expending the time, money, and effort of simultaneously assessing couples' behaviors.

The current study is not without limitations, however. First, the use of two convenience samples inhibits our ability to generalize these findings to the population as a whole. The current samples consisted of traditional college students who were relatively young and involved in primarily dating relationships. Although the "conflict" was held constant for all participants, individuals in more committed romantic relationships (e.g., engaged, married) who have considerably more relationship experience may sacrifice at differing rates because of how trivial the conflict appears. Second, although we developed the magazine raffle paradigm to simulate a sacrifice opportunity, individuals who were uninterested in obtaining a magazine subscription for themselves may have entered their partner's name not because of their commitment to the romantic relationship but more so because they did not want to win the prize. Similarly, if individuals estimated that their partners would be uninterested in winning the prize, they may have entered themselves into the raffle regardless of their commitment level. Thus, it would be advantageous to assess both the individuals' interest and perceptions of the partner's interest in winning the prize. It would also be beneficial to have participants indicate their perceptions of what constitutes sacrifice in general, if the raffle was perceived as a sacrifice, and their want or need to attain the prize. This data could be collected in a post-experimental interview in order to probe for specific participant attitudes and to maintain the guise that the raffle is entirely separate from the true nature of the study. Another limitation is the possibility that participants' may have behaved in a socially desirable manner. That is, participants may have entered their partners as a way of appearing altruistic and like a "good" girlfriend or boyfriend. One way to control for this possibility in future research is to administer a measure of this bias, such as the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). Additionally, participants could be lead to believe that their response was more anonymous in order to remove this bias (e.g., the participant could drop his or her raffle ticket into a slotted box that appears as though it

contained other responses, but would in fact be filled with blank forms, which would enable the researcher to assess whether the participant sacrificed. Finally, we only assessed sacrificial behavior via the behavioral measure. This prevented us from examining whether a self-report measure of sacrifice or our newly developed behavioral measure is more strongly related to commitment. If the behavioral measure was more closely linked to commitment, this would suggest that commitment may be a better predictor of other relational behaviors than was once thought.

### *Conclusion*

Researchers have primarily relied on self-report measures to assess individuals' willingness to sacrifice self-interests for the sake of a romantic partner. The current study demonstrates that utilizing a raffle paradigm for a magazine subscription provides a behavioral measure of sacrifice, which is advantageous to previous methodologies that require inferring behavior from hypothetical situations. Although a raffle for a magazine subscription is not the only way to obtain a behavioral measure of sacrifice, the current study indicates that such methodologies may prove to be quite beneficial in examining romantic relationship processes.

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