

# Returnable Reciprocity: When Optional Gifts Increase Compliance

## Faculty Research Working Paper Series

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**March 2020**

**RWP20-007**

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Returnable Reciprocity:  
When optional gifts increase compliance

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### **Abstract**

Classic takes on the norm of reciprocity find that receipt of a gift increases compliance with a later request. We find that giving people the opportunity to return this gift surprisingly increases compliance rates, a phenomenon we call “returnable reciprocity”. Across four studies (N = 3,788), we find evidence that returnable reciprocity leads to higher enrollment in a hypothetical workplace wellness program (Study 1), as well as greater compliance in a large-scale field experiment (Study 2) and conceptual lab replication (Study 3) involving completing requested surveys. We provide evidence that this increased compliance may be due to increased feelings of guilt for non-compliance (Study 3). Finally, we find that while the economic cost of returnable reciprocity is negligible, it may create additional psychological or societal costs that must be taken into account when assessing its social welfare implications (Study 4). We end by discussing the theoretical, practical and social welfare implications of this novel compliance strategy.

A fundamental tenet of human behavior is that people repay the benefits shown to them. This centuries-old principle, typically referred to as the norm of reciprocity (Gouldner, 1960), has been identified and examined in philosophy (Becker, 1986), sociology (Gouldner, 1960), psychology (Cialdini, 1984), management (Flynn & Brockner, 2003; Goldstein, Griskevicius, & Cialdini, 2011), anthropology (Levi-Strauss, 1969), economics (Falk & Fischbacher, 2006), and evolutionary biology (Nowak, 2005). A foundational assumption of this norm is that people do not want to feel indebted to others, and thus are compelled to repay any benefits they receive (Goei & Boster, 2005; Watkins et al., 2006).

In a classic reciprocity situation, an individual is typically given an unconditional gift (often money or a small item) and is then asked to comply with a subsequent request (Cialdini & Trost, 1998). Even though the individual did not ask for the gift – and receipt of the gift is not contingent on compliance – empirical work finds that people feel obligated to the giver and thus are more likely to comply with the request (e.g., Burger et al., 2009; Kunz & Woolcott, 1976). In this paper, we examine a novel case of reciprocity, which we call returnable reciprocity. In a returnable reciprocity situation, an individual is still given an unconditional gift and then asked to fulfill a request; however, in this case the individual is given an additional choice of simply returning the gift and removing the initial benefit given to them. In other words, people in a returnable reciprocity situation are given the opportunity to cancel or nullify the initial obligation.

There are numerous reasons to believe that, compared to a classic reciprocity situation, compliance in a returnable reciprocity situation would remain the same or even decrease. First, a rational choice perspective would predict that anyone who values avoiding the request more than the benefit of the gift would take advantage of the opportunity to simply return the gift (and not

have to fulfill the request). While this could lead to either no change or a decrease in compliance, there is no plausible reason why it would increase compliance. Second, taking psychological processes into account, a model of guilt alleviation would predict that returnable reciprocity would provide people with an additional pathway to assuage their guilt (i.e., by returning the gift). Thus, this account would similarly predict a drop in the rate of people complying with the request.

We surprisingly find evidence of the opposite. In particular, we find that allowing people to voluntarily return the initial benefit leads more people to accommodate the request. We argue that this is because, under these circumstances, people feel guiltier about the prospect of failing to help the requester than if they had no opportunity to give the gift back. In order to avoid these heightened feelings of guilt people must either return the gift or comply with the request. If returning the gift is undesirable, then the prospect of complying becomes relatively more attractive.

One domain where returnable reciprocity could be particularly beneficial is in increasing the uptake of healthy behaviors and habits. In particular, getting people to increase their physical activity and monitor their health can markedly increase their quality of life and life expectancy (Lee et al., 2012). Additionally, ensuring employees are healthy is a key way that organizations can lower absenteeism and increase job satisfaction (Parks & Steelman, 2008). As a result, organizations have recently become interested in promoting healthy habits.

For example, there has been a rising interest in employee wellness programs designed to provide employees with an opportunity to improve and monitor their health through programs such as regular checkups and informational classes (Pfeffer, 2018). Returnable reciprocity

provides a potentially fruitful pathway for organizations to motivate employees to take part in these beneficial programs.

In the following sections we provide more background on the use of reciprocity in request fulfillment and outline the logic behind why a returnable form of reciprocity would be expected to increase compliance.

### **Reciprocity in Practice**

The norm of reciprocity has been used to explain a staggeringly diverse array of behaviors, from effort on organizational tasks (Gilchrist, Luca, & Malhotra, 2016; Gneezy & List, 2006) to negotiation outcomes (Weingart et al., 1990). Indeed, some have even argued that offering free samples at the supermarket induces feelings of reciprocity, which in turn increases purchases (Cialdini, 1984; Friedman & Rahman, 2011).

Notably, and most relevant to the present work, reciprocity has been used to increase socially-beneficial behaviors. Nonprofit organizations also often provide small gifts – such as return address labels – in their request for donations (Koop, 2015), and governmental organizations – such as the Bureau of Labor Statistics – have introduced unconditional cash payments to increase completion of important consumer sentiment surveys (McGrath, 2006). Interestingly, while monetary incentives have been found to be effective at increasing uptake of health-relevant behaviors (Bachiredy et al., 2019; Volpp et al., 2008, 2009), we do not know of any previous work examining whether the norm of reciprocity applies to personal health goals.

Research examining the boundaries of reciprocity has largely focused on the effect of changes to three aspects of the reciprocity situation: (1) who the players are (e.g., whether the requester differs from the initial giver, or whether the initial beneficiary differs from the person asked to comply with the request; Bartlett & DeSteno, 2006; Dufwenberg et al., 2001; Goldstein,

Griskevicius, & Cialdini, 2011; cf. Gray, Ward, & Norton, 2014), (2) what the gift is (e.g., the magnitude of money given, or whether the gift was monetary or nonmonetary; Gneezy & Rey-Biel, 2014; Kube, Maréchal, & Puppe, 2012), and (3) what the request is (e.g., whether the requested help is larger in magnitude than the initial gift; Regan, 1971).

Although invoking reciprocity has proved successful at increasing compliance across a wide variety of these situations (and perhaps because of this success), little work has examined changes to the fundamental structure of the reciprocity paradigm. In the present work, we challenge an unexamined assumption behind the efficacy of reciprocity – that people who receive an unconditional gift are stuck complying with a request because they don't have another way to resolve their indebtedness (Cialdini & Trost, 1998) – and examine what happens when this assumption is relaxed.

### **Making the Gift Returnable**

People are often conflicted between behaving in ways they want to and behaving in ways they know they should (Milkman, Rogers, & Bazerman, 2008). These should-want conflicts can take a variety of forms, including choosing between a healthy and an unhealthy option (Milkman, Rogers, & Bazerman, 2010), or between a self-interested and a prosocial option (Tenbrunsel, Diekmann, Wade-Benzoni, & Bazerman, 2010). People's positive self-evaluations rest on their ability to view themselves as the type of person who behaves how he or she *should*; in other words, people are motivated to see themselves as healthy moral, virtuous, etc. (Blasi, 1984; Mazar, Amir, & Ariely, 2008; Shalvi, Gino, Barkan, & Ayal, 2015; Steele, 1988, Touré-Tillery & Fishbach, 2015; Zlatev, Kupor, Laurin, & Miller, 2019). When temptations arise, people typically require some sort of excuse or justification to feel comfortable behaving in line

with their wants (Berman & Small, 2012; Dhar & Wertenbroch, 2012; Lin, Zlatev, & Miller, 2017; Shalvi, Dana, Handgraaf, & De Dreu, 2011).

When invoking reciprocity, there are many excuses someone can come up with for not fulfilling a request. For example, one might argue that the request takes too much time or effort, or that the goal is not worthy enough. When the gift is non-returnable, as in a classic reciprocity situation, deciding not to comply also *de facto* means keeping the gift. As a result, one can justify avoiding the request in a way that still allows oneself to keep the gift, all while maintaining a positive self-evaluation. However, when keeping the gift is optional, as in a returnable reciprocity situation, any plausible justification for not completing the request would simultaneously require that one return the gift or risk earning a more negative self-evaluation as the type of person who is not healthy, moral, etc. Thus, we predict that people will fulfill a request at a higher rate when the possibility of returning the gift is made salient.

### **Overview of Studies**

We examine this phenomenon in four studies. Study 1 provides initial evidence that returnable reciprocity increases compliance with a hypothetical request in a health domain. Study 2 examines the effect further in a large-scale field experiment looking at rates of survey completion across two U.S. states. Study 3 replicates the result in a more controlled setting using an incentive compatible design, and provides some evidence that guilt statistically mediates the relationship between request type and compliance. Finally, Study 4 examines the welfare implications of this intervention in the health domain, finding that if given the option people on average prefer to be placed in the classic reciprocity situation rather than the returnable reciprocity situation.

### **Study 1**



The goal of Study 1 was to examine whether returnable reciprocity could be used to increase enrollment in an employee wellness program. Study 1 was preregistered at <https://aspredicted.org/blind.php?x=8di9i8>.

## Participants and Methods

Six hundred participants (287 male, 307 female, 6 other;  $M_{\text{age}} = 35.41$ ,  $SD_{\text{age}} = 12.72$ ) living in the U.S. were recruited from Prolific Academic. We set a sample size of 600 participants in advance.

Participants were asked to imagine that they received a package in the mail from their employer. In the package was a flyer with information about a new employee wellness program that they can choose to enroll in and \$5. Participants were able to read the flyer, which outlined the various perks of the employee wellness program, including a fitness assessment, personal training sessions, and webinars. In total nine options were listed in the flyer that participants in the wellness program could participate in. Participants were told that if they decide to enroll in the program, they would be asked to participate in at least two of the options listed in the flyer.

Participants were then randomized across two conditions. Participants in the Classic Reciprocity condition saw the following information:

*“You are not required to enroll in the wellness program. You can keep the \$5 whether or not you enroll in the wellness program.”*

Participants in the Returnable Reciprocity condition instead saw the following information:

*“If you choose not to enroll in the wellness program, you are asked to return the \$5. However, you are **not** required to enroll in the wellness program or return the \$5. It is only requested, and your employer would not know whether or not you returned the \$5.”*

Participants then indicated whether or not they would choose to enroll in the wellness program, and finally answered demographic question.

## **Results**

In total, 67% of participants indicated that they would enroll in the wellness program. Participants in the Returnable Reciprocity condition (73%) were significantly more likely to enroll in the wellness program than participants in the Classic Reciprocity condition (61%;  $\chi^2(df = 1, N = 600) = 9.23, p = .002$ ; see Figure 1).

## **Discussion**

In Study 1 we found that returnable reciprocity increased compliance above a classic reciprocity situation in a health-related domain. However, one limitation of this study is that the scenario itself was hypothetical. As a result, in Study 2 we examine this phenomenon in the field.

### **Study 2**

The goal of Study 2 was to see whether returnable reciprocity was effective in a naturalistic field setting designed to increase uptake of a socially-beneficial survey.

## **Methods**

### *Design*

This study was part of a large-scale program that ran across three public school districts in two states between November 2017 and June 2018. The goal of the program was to examine the effect of engaging social support networks on student achievement. As part of the program, parents were asked to list one or two “supporters” for their child whom they permitted to receive information about their child’s education. These supporters could be any adult who played an important role in the child’s life, including grandparents, mentors, or coaches. In total, 2,964 students and 2,195 supporters enrolled in the program. As part of this program, supporters were

randomly assigned to either a treatment condition, where they received weekly mail and text message updates about their paired student, or a control condition, where they received no communication. A pre-registered analysis plan for the program is available at [osf.io/62cyb](https://osf.io/62cyb). The goal of the present study was to assess response rates to a survey sent to a subset of parents and mentors who participated in this program.

### *Participants*

A total of 5,665 parents and supporters were enrolled in the program at the end of the school year (June 2018). At this time, people enrolled in the program received a letter in the mail asking them to complete a survey to help the school system learn more about how to best support their students. 1,865 people who participated in the program were not sent a survey for one of a number of reasons (4 participants associated with students whose consenting guardians no longer had custody; 1,517 participants associated with students where neither the parent nor the supporter had any contact information; and 344 participants who did not have a mailing address (see Lasky-Fink & Rogers, 2020, for more details on how contact information was acquired and validated).

In total, 3,800 people (1,896 parents and 1,904 supporters) were mailed a survey. Students in the same household and students who shared a supporter were clustered, leaving a total of 2,022 clusters. One student was randomly selected as the focal student for each cluster. Participants were then assigned, via stratified randomization, to one of five conditions.<sup>1</sup> The present research focuses on three of these conditions; the other conditions are discussed in Lasky-Fink & Rogers (2020). As a result, this study included 2,287 participants (1,146 parents and 1,141 supporters) grouped into 1,216 total clusters.

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<sup>1</sup> Assignment to these conditions was orthogonal to assignment to the treatment vs. control conditions for the program discussed earlier.

The students asked about in the survey represented all grade levels from kindergarten to 12<sup>th</sup> grade. 48.1% of students were female and 11.4% lived in a home where the primary language was not English.

### *Procedure*

All participants were mailed a short letter from their school district informing them that the school district was partnering with academic researchers to learn more about how to best support students (see Appendix). Participants were then asked to complete an enclosed survey. As mentioned above, participants were randomly assigned to one of three conditions. Participants in the Control condition were not given any monetary incentive to complete the survey. Participants in the Classic Reciprocity and Returnable Reciprocity conditions received an additional \$5 bill in the mailing. Participants in the Classic Reciprocity condition were simply told that the enclosed \$5 was to thank them for their time and effort. Participants in the Returnable Reciprocity condition were additionally asked to return the \$5 using the provided return envelope.

In addition to mentioning this is the text of the letter, the \$5 bill had a sticky note attached to it reiterating the most important information from the letter. In particular, in the Classic Reciprocity condition, the sticky note included the following additional text:

*To thank you for your time and effort, please find \$5 enclosed from the Spencer Foundation, one of the funders supporting this project.*

In the Returnable Reciprocity condition, the sticky note included the text above plus following additional text:

*If you choose not to complete this survey, please return the \$5 using the return envelope provided by 7/3/18. (You are not required to complete this survey or return the \$5)*

The survey was between 26 and 32 questions long and were spread out over 4 to 6 pages. A prepaid return envelope was included either to return the survey or, in the Returnable Reciprocity condition, to potentially return the \$5.

### **Analytic Approach**

The primary outcome measure was whether or not participants sent back the survey in the return envelope. For all analyses we conducted binary logistic regressions using robust standard errors with errors clustered by student-supporter cluster. We also included several control variables: school district, whether the respondent was a parent or supporter, treatment assignment in the program, whether the respondent's reported language was English, student gender, and student grade level. Results described in the results section are taken from the model that includes the control variables. However, full results with and without controls are displayed in Table 2.

### **Results**

Of the 2,287 surveys mailed out, 590 were returned, an overall response rate of 25.8%. Breaking down return rates by condition, 19.1% of participants in the Control condition, 25.8% of participants in the Classic Reciprocity condition, and 32.5% of participants in the Returnable Reciprocity condition returned a survey (see Table 1).

Participants in the Classic Reciprocity and Returnable Reciprocity conditions returned surveys at a significantly higher rate than participants in the Control condition ( $b = .19$ ,  $z = 4.84$ ,  $p < .001$ ). This indicates that participants were sensitive to reciprocity concerns. Looking within the two types of reciprocity tested, participants in the Returnable Reciprocity condition returned the survey at a significantly higher rate than participants in the Classic Reciprocity condition ( $b =$

.17,  $z = 2.83$ ,  $p = .005$ ). This indicates that participants were sensitive to the suggestion that they return the money if they did not complete the survey.

Another way to categorize these results is that the Returnable Reciprocity condition increased compliance by 26% above the Classic Reciprocity condition and 70% above the Control condition. Had all 5,665 people who were enrolled in the program in June 2018 received a single version of the letter, the Returnable Reciprocity version would have resulted in approximately 379 additional returned surveys above the Classic Reciprocity version, presumably at a cost savings since participants had the opportunity to return the money to the school district.

## **Discussion**

Study 2 provided further evidence that giving people the option to return a gift increases compliance with a request. This was demonstrated in an incentive-compatible field setting with a behavioral measure of compliance (i.e., completing a survey for the school district). These results conform with Study 1, both in direction and magnitude of the effect. Having established the efficacy of returnable reciprocity in the lab and the field, we now turn to examining the potential psychological mechanisms.

## **Study 3**

Thus far, we have demonstrated the effectiveness of returnable reciprocity across two entirely different domains (health and education). The goal of Study 3 was twofold: First to examine the effect in a controlled setting with an incentive compatible measure of compliance, and second to assess whether anticipated guilt was statistically mediated the effect of reciprocity type on compliance, as we predicted. Study 3 was preregistered at <http://aspredicted.org/blind.php?x=6gs2g4>.

## Participants and Methods

Five hundred ninety-nine participants (312 male, 276 female, 10 other, 1 did not respond;  $M_{\text{age}} = 36.23$ ,  $SD_{\text{age}} = 14.24$ ) living in the U.S. were recruited from Prolific Academic. We set a sample size of 600 participants in advance.

Participants were first asked to complete a filler task involving indicating whether or not images featured animals or wildlife. When they finished, they were told that, to thank them for their time and effort, we were giving them an additional bonus of \$0.25. Participants were then asked to complete a short survey for the Center for Automotive Research, a U.S.-based nonprofit research organization studying how the automotive industry impacts the economy and society.

Participants were randomized across two conditions. Participants in the Returnable Reciprocity condition then saw the following:

*“If you choose not to complete this survey, please return the \$0.25 bonus you are receiving. You are **not** required to complete this survey. Your compensation for this survey and the \$0.25 bonus are yours regardless of whether you complete the survey. You will have the chance to return the bonus on a later page.”*

Participants in the Classic Reciprocity condition only saw the second and third sentences above (i.e., not the first and fourth sentences).

Participants were then asked to report how guilty they would feel if they chose not to complete the survey. Participants responded on a five-point scale from “Not at all guilty” to “Extremely guilty.” Finally, participants were asked whether they would like to fill out the survey or skip it. Participants who chose to fill out the survey were asked some additional

questions before answering demographic questions, whereas participants who chose to skip the survey went directly to the demographic questions.

## Results

As in Study 1, participants in the returnable reciprocity condition (89%) were significantly more likely to complete the survey than participants in the classic reciprocity condition (79%;  $\chi^2(df = 1, N = 599) = 9.86, p = .002$ ; see Figure 2). Participants in the returnable reciprocity condition also indicated that they would feel significantly higher guilt than participants in the classic reciprocity condition ( $\beta = 0.32, t(597) = 3.97, p < 0.001, 95\% CI [.22, .66]$ ). Finally, a mediation analysis with bootstrapping (5,000 iterations) indicated a significant indirect effect of condition on decision to take the survey via anticipated guilt (95% CI [.02, .08]).

## Discussion

Study 3 provided further evidence that including the option to return the gift actually increases compliance with the initial request. Additionally, Study 3 found that this returnable reciprocity also increased anticipated guilt, and this anticipated guilt statistically mediated the effect of reciprocity type on compliance.

## Study 4

While the classic reciprocity and returnable reciprocity situations are equal in terms of their economic costs (i.e., they cost the same amount of money to implement), there may be differences in terms of other costs to participants and society. In particular, recent work has argued there are often unexamined welfare costs to seemingly simple behavior change interventions (Allcott & Kessler, 2019; DellaVigna, List, & Malmendier, 2012). We examined this possibility in Study 4 (see also Study S1 in the Appendix).



## Participants and Methods

Three hundred and two participants (148 male, 146 female, 8 other;  $M_{\text{age}} = 33.46$ ,  $SD_{\text{age}} = 12.08$ ) living in the U.S. were recruited from Prolific Academic. We set a sample size of 300 participants in advance.

Participants were asked to imagine that they received a package identical to the one participants imagined receiving in Study 1, in which they were asked to sign up for an employee wellness program. Participants were then shown two options, which were counterbalanced. The first option was the Classic Reciprocity situation, described identically to the Classic Reciprocity condition in Study 1. The second option was the Returnable Reciprocity situation, again described identically to the Returnable Reciprocity condition in Study 1. Participants were asked which of these two options they would prefer to receive.

## Results

Overall, 78.8% of participants preferred to receive the Classic Reciprocity situation over the Returnable Reciprocity situation. This was the majority of participants by a significant margin ( $\chi^2(df = 1, N = 302) = 100.25, p < .001$ ).

## Discussion

Study 4 informed participants about both types of reciprocity situations examined in Studies 1-3, and asked them to choose in which they preferred to be placed. A majority of participants preferred to receive the \$5 without the explicit opportunity to return it. One possibility is that people may anticipate the increased guilt they will feel in the returnable reciprocity situation, and thus would prefer to avoid it.

## General Discussion

In four studies, we have demonstrated that making a gift optional increases compliance with a subsequent request, an effect that we call returnable reciprocity. In Study 1, we demonstrate that returnable reciprocity can increase enrollment in a wellness program, thus potentially improving important health outcomes. In Study 2 we find evidence that returnable reciprocity additionally increases survey completion in a large-scale field experiment. In Study 3 we find that guilt statistically mediates the effect of reciprocity type on compliance in a controlled, incentive-compatible setting. Finally, in Study 4, we begin to examine the welfare effects of returnable reciprocity, finding that people prefer to be placed in a classic reciprocity situation than in one where they have the option to return the initial gift.

#### *Theoretical implications*

This work has a number of important theoretical implications. First, we identify a previously unexamined form of reciprocity that we demonstrate is even more potent than the classic reciprocity situation used to increase compliance across a wide variety of domains. In short, making the gift easier to return actually counterintuitively makes people more likely to respond to a request from the gift giver. Notably, however, none of the requests in our studies were done face-to-face, but rather were done either via letter or on the computer. It may be that feelings of guilt for not completing a request are heightened in general in face-to-face situations, leading to a ceiling effect where making the gift returnable does not further increase compliance. Future work could examine this as a potential moderator.

Second, we contribute to the literature on increasing the uptake of healthy habits (Loewenstein, Brennan, & Volpp, 2007; Halpern et al., 2015; Staats, Dai, Hofmann, & Milkman, 2017). While little previous work has examined the efficacy of reciprocity in the health domain, we demonstrate that returnable reciprocity is still beneficial for compliance on health-relevant

behavior. However, our study in the health domain (Study 1) did not include a true control condition, so future research would benefit from examining the effect of classic reciprocity (over and above no reciprocity) in the health domain.

Third, we identify a novel way in which people feel compelled to behave in ways that benefit the social good. Namely, making a self-interested gain optional makes it harder to avoid doing a socially-beneficial deed without feeling guilty. This work contributes to a long and growing list of ways in which people's positive view of themselves is constrained by the situation (e.g., Berman & Small, 2012; Lin, Zlatev, & Miller 2017; Wang & Murnighan, 2016). Interestingly, and unlike previous work, returnable reciprocity achieves this feeling of psychological constraint while simultaneously giving people *more* options (i.e., the additional option to return the gift) rather than by taking options away.

### *Practical Implications*

On the practical side, this research provides a simple and powerful intervention to boost compliance rates in a real-world setting. This work falls in line with recent attempts to identify effective nudges that can increase desirable behavior (Benartzi et al., 2017; Rogers, Goldstein, and Fox, 2018; Thaler & Sunstein, 2003). In particular, this version of reciprocity provides even more choice than classic versions (i.e., the additional option of returning the gift), thus satisfying the view that nudges should preserve individual autonomy (Thaler & Sunstein, 2003). Study 2 found that the addition of a single line mentioning the possibility of returning the gift led to a 26% increase in compliance over a classic reciprocity request. This presents an immediately scalable technique to increase compliance for everything from survey completion to charitable donations. Of course, the results from Study 4 should rightfully give us some pause, a point that we return to in the next section.

### *Limitations and Future Directions*

In the present work, we focused on situations in which (1) the giver and requester were the same entity (i.e., direct, rather than indirect, reciprocity), and (2) there is an explicit subsequent request to do something (as opposed to an implied obligation to reciprocate). It is unclear to what extent these factors play a role in the effectiveness of returnable reciprocity. For example, without an explicit request for help, people may feel more comfortable simply keeping the gift and not complying with the request. Future research should examine these potential boundary conditions.

Additionally, while we find evidence for our effect in a number of different domains, including education, health, and transportation, there may be domains where this effect would not hold. Relatedly, while reciprocity itself has been called a near-universal norm, different cultures may engage in reciprocity for different reasons (e.g., Miller & Bersoff, 1994). If, rather than inducing an obligation that one does not really want to repay, reciprocity instead induced something more like a sense of duty or allegiance, then this effect would likely not occur.

Finally, Study 4 suggests there may be additional consequences to invoking returnable reciprocity that should be taken into account when deciding whether or not to implement it in a field setting. If the aggregate welfare benefit of increased compliance is less than the aggregate welfare harm of increased feelings of guilt for non-compliance, then this strategy could lead to overall aggregate decreases in social welfare. Future research could attempt to quantify these benefits and harms, perhaps by examining how much (if anything) people would be willing to pay to avoid being placed in a returnable reciprocity situation. In addition to the aggregate welfare consequences, an individual actor desiring compliance should also keep these

preferences in mind since non-compliers may have heightened resentment toward the compliance-requesting organization when returnable conformity is deployed.

### **Conclusion**

We demonstrate that, counter to important economic and psychological predictions, gift recipients comply with subsequent requests to a greater extent when the gift is returnable than when it is not. The increased guilt associated with returnable reciprocity suggests that people want to find ways to benefit themselves while avoiding feeling bad about it. These findings provide immediately practical advice on increasing rates of compliance in the field, while also speaking to the psychological process behind complying with less desirable requests.

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*Table 1.* Descriptive results from Study 2.

		Control	Classic Reciprocity	Returnable Reciprocity
ALL				
	Total N	760	767	760
	% returning survey	19.1%	25.8%	32.5%
PARENTS				
	Total N	380	380	386
	% returning survey	13.4%	22.4%	26.4%
NOMINATED SUPPORTERS				
	Total N	380	387	374
	% returning survey	24.7%	29.2%	38.8%

Table 2. Regression results from Study 2.

	<i>Dependent variable:</i>	
	Returned survey (1)	(2)
Reciprocity vs. no reciprocity	0.184*** (0.039)	0.187*** (0.039)
Classic vs. returnable reciprocity	0.162** (0.061)	0.174** (0.061)
District		0.034 (0.140)
Supporter		0.503*** (0.094)
Program treatment assignment		-0.158 (0.104)
Female		-0.009 (0.103)
Non-english		-0.284 (0.196)
Student Grade		-0.017 (0.016)
Constant	-1.077*** (0.052)	-1.250** (0.426)
Observations	2,287	2,287

*Note:* \*p < .05 \*\*p < .01. \*\*\*p < .001

Figure 1. Percentage of participants complying with the request by condition in Study 1.

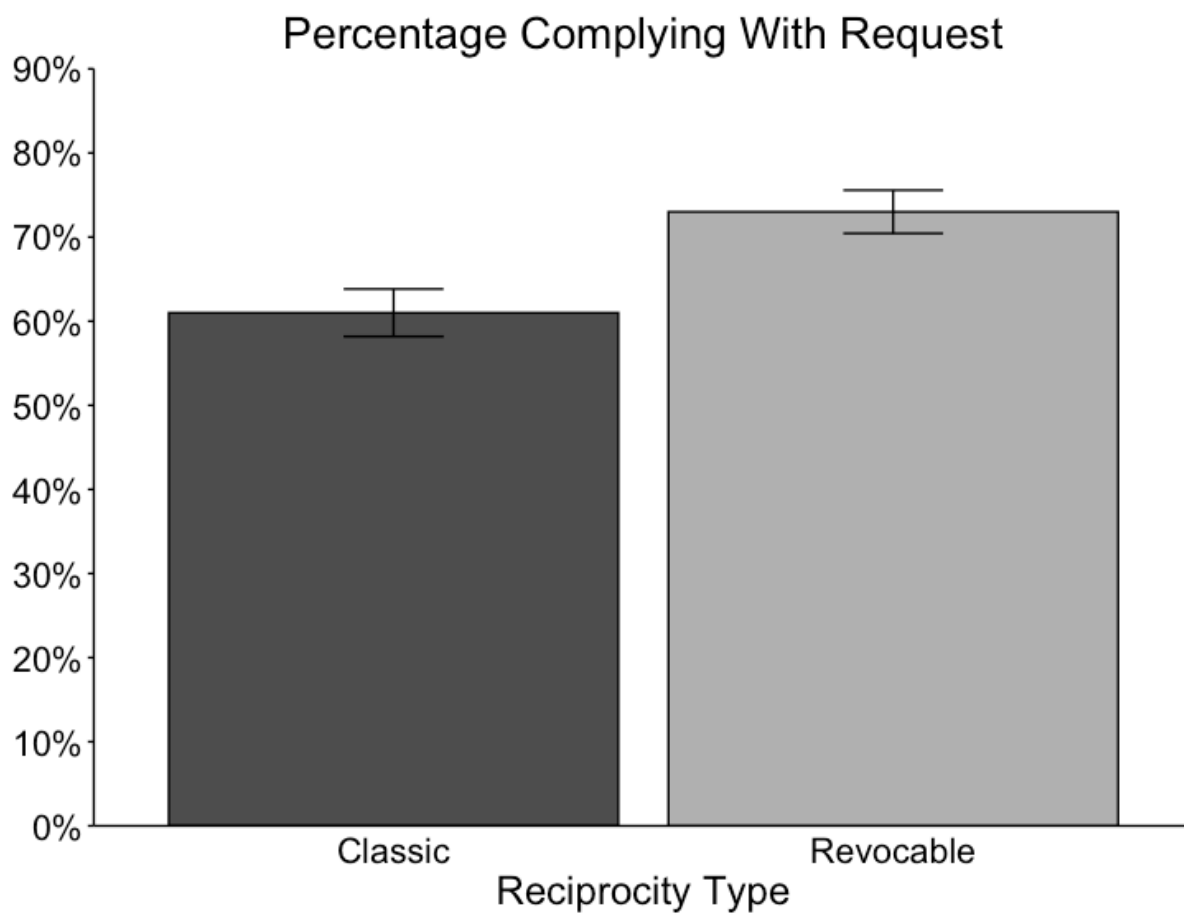
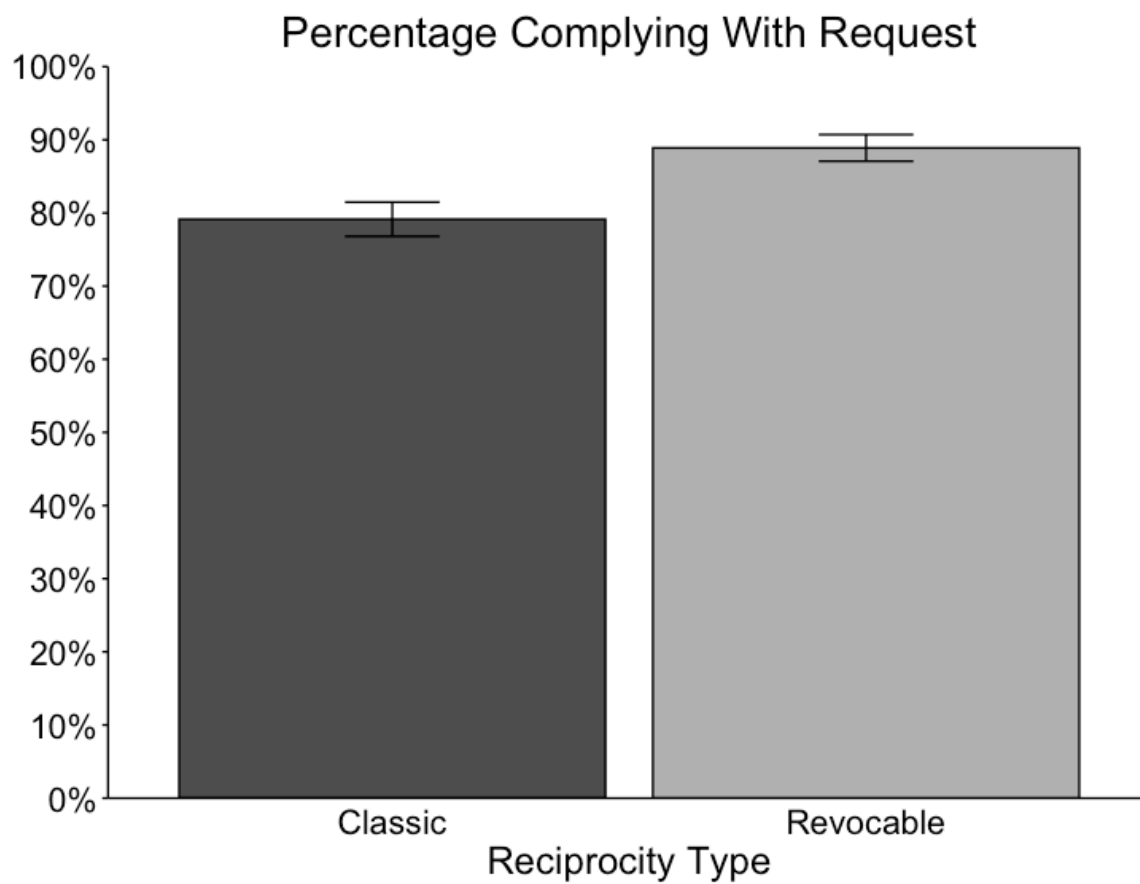
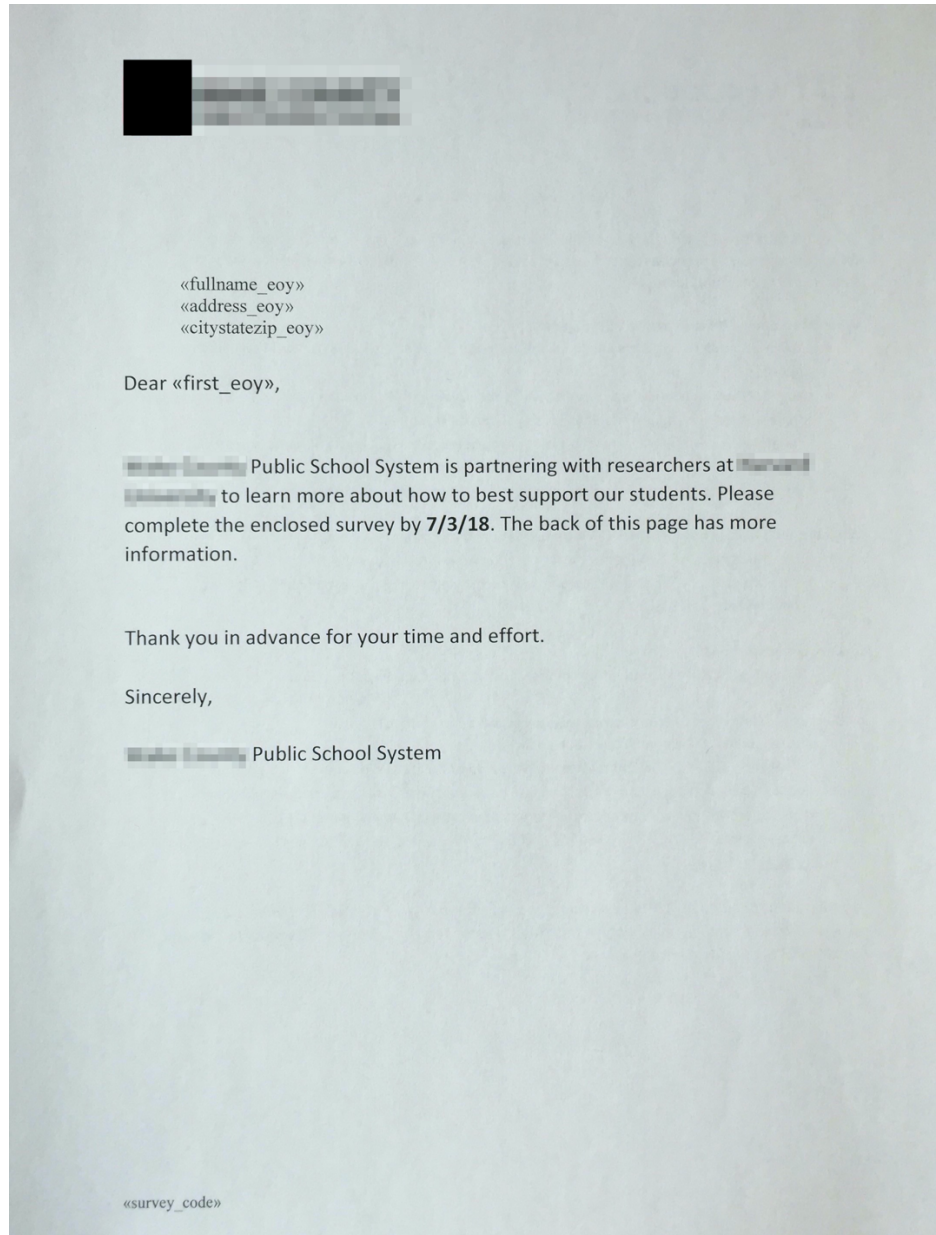


Figure 2. Percentage of participants complying with the request by condition in Study 3.



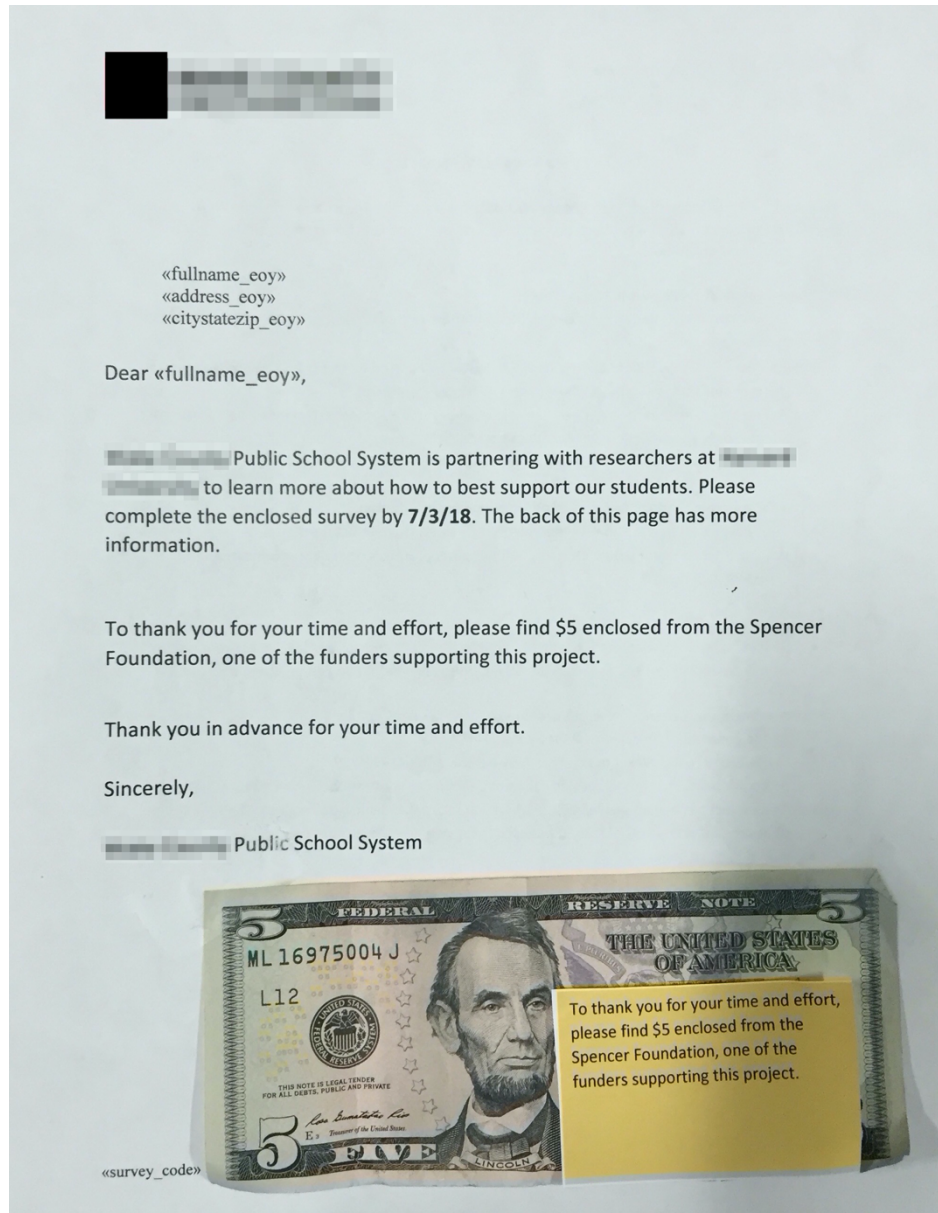
## Appendix

Letter sent to parents in the Control condition in Study 2. (Letter sent to supporters included slightly different wording.)

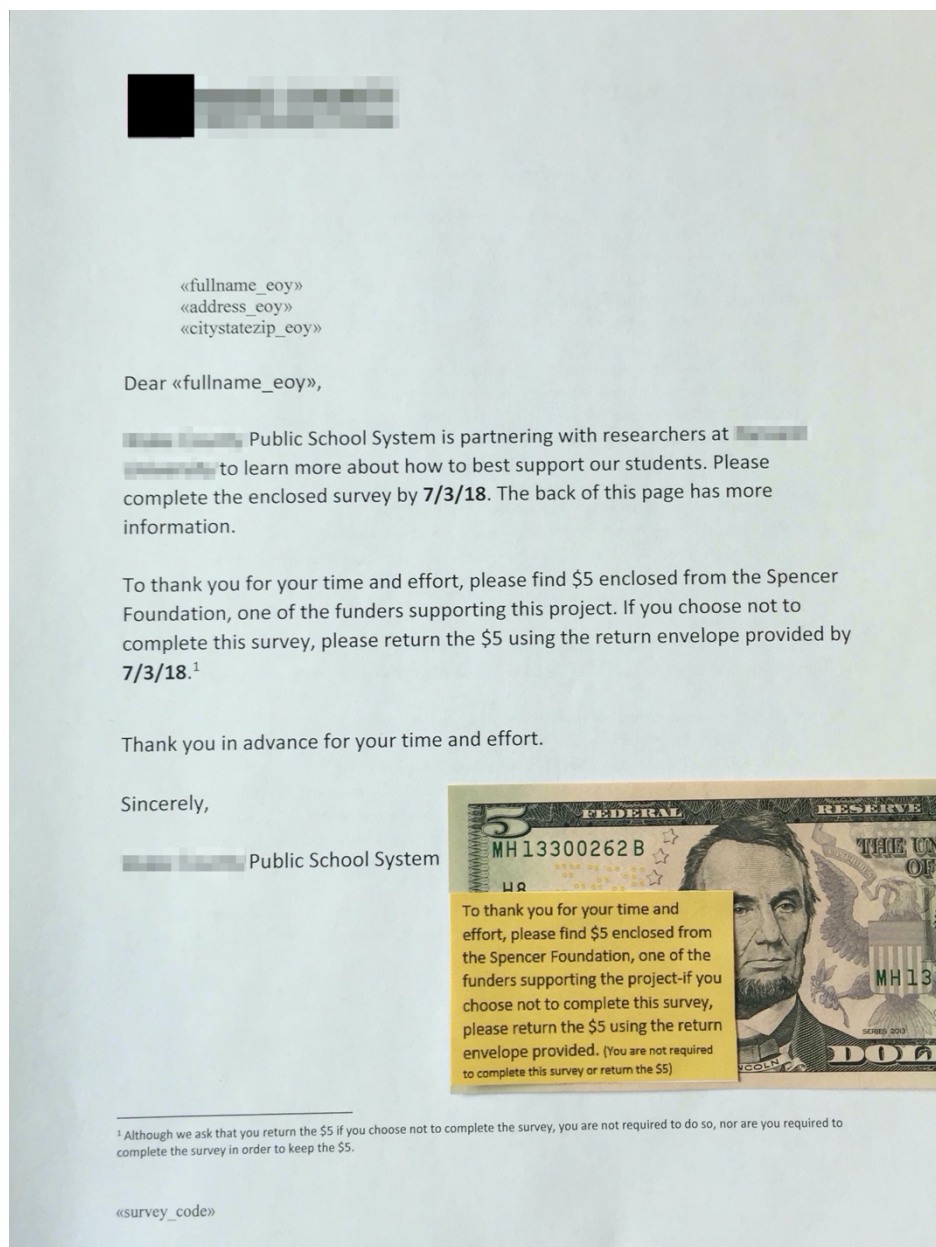




Letter sent to parents in the Classic Reciprocity condition in Study 2. (Letter sent to supporters included slightly different wording.)



Letter sent to parents in the Returnable Reciprocity condition in Study 2. (Letter sent to supporters included slightly different wording.)



### Supplemental Study 1

The goal of this study, like Study 4, was to examine potential welfare costs of returnable reciprocity. While Study 4 looked at this in the domain of wellness programs, Study S1 did so in the domain of education. This study was preregistered at <https://aspredicted.org/blind.php?x=y6k8uu>.

#### Participants and Methods

Three hundred participants (129 male, 168 female, 3 other;  $M_{\text{age}} = 36.38$ ,  $SD_{\text{age}} = 12.77$ ) living in the U.S. were recruited from Prolific Academic. We set a sample size of 300 participants in advance.

Participants were asked to imagine that they received a letter very similar to the one sent out in Study 1, in which they were asked to complete a survey to help a local school district learn how to best support their students. Participants were then shown two options, which were counterbalanced. The first option was the Classic Reciprocity situation, described identically to the Classic Reciprocity condition in Study 2. The second option was the Returnable Reciprocity situation, again described identically to the Returnable Reciprocity condition in Study 2. Participants were asked which of these two options they would prefer to receive.

#### Results

Overall, 63.2% of participants preferred to receive the Classic Reciprocity situation over the Returnable Reciprocity situation. This was the majority of participants by a significant margin ( $\chi^2(df = 1, N = 299) = 20.87, p < .001$ ).

#### Discussion

The results from this study conform with results from Study 4, indicating potential welfare costs to enacting returnable reciprocity in a broad scale.