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### Transferring Trust: Reciprocity Norms and Assignment of Contract

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## TRANSFERRING TRUST: RECIPROCITY NORMS AND ASSIGNMENT OF CONTRACT

Tess Wilkinson-Ryan \*

**Abstract:** This paper presents four experiments testing the prediction that assignment of contract rights erodes the moral obligation to perform. The first three studies used an experimental laboratory game designed to model contractual exchange. Players in the games were less selfish with a previously-generous partner than with third-party player who had purchased the right to the original partner's expected return. The fourth study used a web-based questionnaire, and found that subjects reported that they would require less financial incentive to breach an assigned contract than a contract held by the original promisee. The results of these four experiments provide support for the proposition that a permissible and apparently neutral transfer of a contractual right may nonetheless reduce the likelihood or quality of performance by weakening the norm of reciprocity.

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## TRANSFERRING TRUST: RECIPROCITY NORMS AND ASSIGNMENT OF CONTRACT

### INTRODUCTION

Lawyers and legal scholars generally take assignment of contracts to be uncontroversial. Most contract rights are transferable, and assignment of contracts is very common in a number of legal contexts. Debt may be bought and sold; contracts may be transferred as part of an estate; and patents and trademarks are assigned. For most people, though, the idea of selling a contractual right is odd. The notion that the promisee can bind the promisor to perform for a third party without the promisor's consent is in tension with ordinary ideas about promising and reciprocity. The impulse to reward trust with trustworthiness—to reciprocate generosity—is stymied when the generous first-mover is no longer a party to the transaction. In this paper, I argue that when contract rights are sold, the moral force of the contract is attenuated, encouraging breach when breach is otherwise more profitable than performance.

The studies reported here use experimental psychological methods to test the prediction that a party to a contract is more likely to behave selfishly toward a third-party buyer or assignee than toward her original counterparty. The first three experiments employ laboratory games designed to model a stylized version of contractual exchange. The fourth study is a web-based questionnaire describing hypothetical breaches of contract. The results of these experiments provide support for the proposition that a permissible and apparently neutral transfer of a contractual right may nonetheless reduce the likelihood or quality of performance by weakening the importance of the norm of reciprocity.

This paper begins with a brief review of the law of assigned contracts and the existing behavioral literature on trust and contract before presenting the methods and results of four new experiments. I conclude with a discussion of the implications and limitations of the reported results.

### I. LAW AND PSYCHOLOGY OF ASSIGNED CONTRACTS

#### *A. Law of Assigned Contracts*

The common law has accepted contract assignment since the nineteenth

century, taking the position that a right may be assigned as long as it is not prohibited by statute or by the terms of the contract, and if it would not “materially change the duty of the obligor.”<sup>1</sup> Most contract rights are transferable, and assignment is common in a number of legal contexts, from bankruptcy to estate settlement. Sales contracts may be assigned, and assignees can sue for breach.<sup>2</sup> And, of course, assignment of contract is crucial for the buying and selling of credit and debt.<sup>3</sup> In the consumer credit world, the ability to transfer contracts is vital to the flow of credit from lenders to borrowers, so much so that Article 9 even limits parties’ abilities to contract around assignability.<sup>4</sup>

In general, the buyers and sellers of contracts are business organizations, not individuals, and this paper does not purport to describe the moral intuitions of corporations or other institutional actors. However, ordinary people are party to a surprising range of contract assignments. When a company merges or is acquired, its customers’ obligations are transferred to the new entity. Individuals in debt are surely familiar with one of the most common forms of contract assignment, the sale of debt to a collection agency. Debt collection companies and small law firms buy bad debt from credit card companies for a small percent of the value of the debt, and then attempt to collect as much as they can of the balance.<sup>5</sup> Many people also see a transfer of contract rights in the mortgage context. A borrower may originate a home loan at a local mortgage company, but it will almost always be sold to a larger financial institution at some point.<sup>6</sup> Free transferability is the rule and the norm, and even people who never so much as endorse a check to someone else will find their own contractual obligations assigned to other parties. As Farnsworth points out, “If the law

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<sup>1</sup> RESTATEMENT (SECOND) OF CONTRACTS § 317

<sup>2</sup> UCC § 2-210(2) (“[U]nless otherwise agreed, all rights of either seller or buyer can be assigned except where the assignment would materially change the duty of the other party, or increase materially the burden or risk imposed on him by his contract, or impair materially his chance of obtaining return performance.”)

<sup>3</sup> See E. ALLAN FARNSWORTH, CONTRACTS § 11.2, at 704 (4<sup>th</sup> ed., 2004) (citing the notion that debt is a saleable commodity as the foundation of the modern economy).

<sup>4</sup> UCC § 9-318(4) (“A term in any contract between an account debtor and an assignor is ineffective if it prohibits assignment of an account...”)

<sup>5</sup> See, e.g., Christopher L. Peterson, *Predatory Structured Finance*, 28 CARDOZO L. REV. 2185, 2261 (2007) (noting that debt collection agencies specialize in collecting loans and accounts in default for third parties).

<sup>6</sup> The Restatement (Third) of Property provides that mortgages are transferable unless the parties stipulate otherwise in the contract.<sup>6</sup> See also, Anna Gelpern & Adam Levitin, *Rewriting Frankenstein Contracts: Workout Prohibitions in Residential Mortgage-Backed Securities*, 82 S.CAL. L.REV. 1075 (2009)(discussing loan transfers and securitization in the mortgage context).

were otherwise, our modern credit economy could not exist.”<sup>7</sup> The question for this paper is how the commonsense understanding of a contract shifts when the right to performance changes hands.

### *B. Moral Psychology of Contract*

The hypothesis of this research is built on the premise that legal decision-making is affected by moral judgment, even when the legal regime does not reflect the prevailing moral view. Legal scholars and ordinary citizens alike debate the moral meaning of the contractual obligation. Charles Fried famously wrote that a contract is a promise, and that breach of a contract implicates the attendant moral violation of promise-breaking.<sup>8</sup> Law and economics scholars, on the other hand, have argued that a contract is just a promise to perform or pay damages, and that there is no particular moral harm in breaching and paying.<sup>9</sup> As a descriptive matter, most people think of contract as a kind of promise, and of breach as a moral violation.<sup>10</sup> Furthermore, parties are sensitive to the moral context of breach. They are more punitive when they think the breacher was greedy or malevolent than when he was unfortunate or hapless.<sup>11</sup> The studies below predict that the moral commitment to perform is stronger with respect to the original promisee than an assignee.

To set up the hypotheses here, I begin with a brief review the existing literature on norms of reciprocity and exchange, and argue that these norms are weakened in the assigned contract context. One explanation for a promisor’s preference for performance over efficient breach comes from the reciprocity literature. People reward generosity and punish selfishness even when it is costly to do so. The Trust Game designed by Berg, Dickhaut and McCabe<sup>12</sup> demonstrates the dynamic relationship between trust and

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<sup>7</sup> FARNSWORTH, *supra* note 6, at 704.

<sup>8</sup> See Charles Fried, *Contract as Promise* 16 (1981) (“An individual is morally bound to keep his promises because he has intentionally invoked a convention whose function is to give grounds—moral grounds—for another to expect the promised performance. To renege is to abuse a confidence he was free to invite or not, and which he intentionally did invite.”)

<sup>9</sup> E.g., Lewis A. Kornhauser, *An Introduction to the Economic Analysis of Contract Remedies*, 57 U. Colo. L. Rev. 683, 687 (1986) (“Economic analyses reject the view of contract as promise, and replace it with the idea that contract law ought to promote ‘efficiency.’”)

<sup>10</sup> Tess Wilkinson-Ryan & Jonathan Baron, *Moral Judgment and Moral Heuristics in Breach of Contract*, 6 J. Empirical Legal Stud. 405 (2009) (showing that participants in a series of experiments were sensitive to the moral context of breach of contract).

<sup>11</sup> *Id.* at 417.

<sup>12</sup> Joyce Berg, John Dickhaut, and Kevin McCabe, *Trust, Reciprocity, and Social*

trustworthiness, and it is the foundation for the method employed in the first three studies. In the original Trust game, two players, an Investor and a Trustee, are each given an initial endowment. The Investor is told that she can pass money to an anonymous Trustee, and that whatever amount she passes will be tripled. The Trustee then chooses how much of her wealth to pass back.<sup>13</sup> The unique Nash equilibrium solution to this game is zero transfers.<sup>14</sup> A purely self-interested Trustee will pass no money back. Knowing this, a self-interested Investor should pass none in the first instance. In fact, however, most Investors in the original studies passed a positive amount, averaging around \$5 out of \$10 dollars.<sup>15</sup> And although some Trustees sent none or almost none back, a majority returned money, often more than the original investment. The average return on a \$5 investment was \$7.17, on \$10, \$10.20.<sup>16</sup>

However, generosity and reciprocity are sensitive to social factors, a finding from the trust literature with implications for the promisor-assignee relationship.<sup>17</sup> A smaller “social distance” between the parties means a stronger commitment to perform on the contract. Social distance measures the quantity and quality of interaction between agents. Hoffman, McCabe and Smith measure quantity as “the degree of reciprocity that subjects believe exists within a social interaction.”<sup>18</sup> For example, even small changes to the social framing of a Dictator game result in significantly different giving behavior. In a Dictator game, the player assigned to be the Dictator receives an initial endowment, and is instructed to allocate the money between herself and the Receiver, who has no money. When researchers engaged Dictators in a minor transaction with the experimenter before players made their giving choice, they saw fewer selfish allocations; the authors suggest that any sense that the player is not socially isolated increases giving.<sup>19</sup> Social distance also involves the quality of the relationship, which is partly measured by identifiability, or the extent to

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*History*, 10 GAMES & ECON. BEH. 122 (1995).

<sup>13</sup> *Id.* at 124-129.

<sup>14</sup> *See id.* at 123 (noting that a prediction of noncooperation should lead a rational investor to send zero).

<sup>15</sup> *Id.* at 123 (describing the baseline result that 30 of 32 investors sent money, with an average investment of \$5.16).

<sup>16</sup> *Id.* at 131.

<sup>17</sup> *See* George A. Akerlof, *Social Distance and Social Decisions*, 65 ECONOMETRICA 1005, 1006 (1997) (arguing that a rational choice analysis of social decisions must be sensitive to the social consequences of those decisions).

<sup>18</sup> Elizabeth Hoffman, Kevin McCabe, and Vernon Smith, *Social Distance and Other-Regarding Behavior in Dictator Games*, 86 AM. ECON. REV. 653, 654 (1996).

<sup>19</sup> *Id.* at 658 (“As we weaken the anonymity or social isolation conditions... we observe that the offer distributions decrease as predicted.”)

which an other is known. For example, when Dictators know the family name of the Receiver, they are significantly more generous than when the Receiver is entirely anonymous.<sup>20</sup> Low-level, meaningless information about a potential receiver, like the Receiver's study-specific identification number, increases sympathy and giving.<sup>21</sup>

A promisor and a promisee are closer to one another than a promisor and an assignee, and this may affect how the promisor thinks about breach. In the real world of contracts, the degrees of both reciprocity and identifiability differ as between an original promisee and an assignee. The initial drafting stage often provides information about the counter-party, as well as a set of reasons to reciprocate. As such, the social distance literature supports a prediction of higher levels of cooperation between the original counterparties than between the promisor and a third-party assignee.

Of course, trust and trustworthiness are implicated not only in direct exchanges, but also in indirect chains of helping behavior. Buyers of debt, for example, are indirectly contributing to the financial well-being of the debtor in that the ability to buy and sell debt is what keeps the flow of credit available. One could conceivably predict that people feel a kind of indirect debt toward such buyers, which encourages performance. Studies on the role of indirect reciprocity have been somewhat equivocal. Two sets of studies have used a Trust game set-up to test the effect of indirect reciprocity by asking Trustees to send money back to Investors who were originally paired with other partners—in other words, Trustees were asked to reward an Investor's generosity to someone else. Some researchers found no difference<sup>22</sup> and others found bigger returns in the direct reciprocity condition.<sup>23</sup> The role of indirect reciprocity in assigned contract situations in the real world is an open question, and one that this paper will not resolve. In some cases, it makes sense to think of third-party buyers as

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<sup>20</sup> See Gary Charness & Uri Gneezy, *What's in a Name? Anonymity and Social Distance in Dictator and Ultimatum Games*, 68 J. ECON. BEH. & ORG. 29, 32 (2008) (reporting results from an experimental game).

<sup>21</sup> See Deborah Small & George Loewenstein, *Helping a Victim or Helping the Victim: Altruism and Identifiability*, 26 J. RISK & UNCERTAINTY 5, 13 (2003) (using an anonymous Dictator game to show differential giving between a probabilistic future recipient and one whose identification number has already been chosen).

<sup>22</sup> See Martin Dufwenberg, Uri Gneezy, Werner Guth, and Eric van Damme, *Direct vs. Indirect Reciprocity: An Experiment*. 18 HOMO OECOMICUS 19, 24 (2001) (describing the study's methodological approach).

<sup>23</sup> See Nancy R. Buchan, Rachel T.A. Croson, and Robyn M. Dawes, *Swift Neighbors and Persistent Strangers: A Cross-Cultural Investigation of Trust and Reciprocity in Social Exchange*, 108 AM. J. SOCIOLOGY 168, 187 (2002) (describing the structure of the experiment).

important contributors to the overall system. The availability of mortgage credit, for example, is heavily dependent on the ability of smaller banks to sell their loans to larger financial institutions. In other cases it is not clear that the third party has contributed to the social good in a way that a promisor might want to reward. When that is true, the assignee only “deserves” performance insofar as subjects believe that mere ownership confers a moral right. In the first study, reported below, I test the basic hypothesis that people will be more generous toward someone who has been directly generous to them than toward someone who owns the right to that reciprocal generosity but has not obviously behaved generously herself. I also use survey questions to probe subjects’ feelings of friendliness and indebtedness toward the other players in the game.

## II. STUDY 1: TRANSFERRED TRUST GAME

In order to test the hypothesis that an assigned contract engenders less reciprocity from a promisee than a contract held by the original promisor, the first three experiments used an experimental game design intended to evoke some key features of contractual exchange. Participants played a laboratory game in which they were confronted with real incentives (e.g., they were paid based on their choices). In line with previous studies of contractual relationships, the method is based on a Trust game paradigm.<sup>24</sup> A traditional Trust game has only two players, but this game included a third player who was able to buy the right to the Trustee’s return. From the subjects’ perspective, this game was not explicitly about contract; like most economics experiments purporting to deal with contract<sup>25</sup>, it was only described to them in terms of players and payoffs.<sup>26</sup> The contractual

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<sup>24</sup> See, e.g., Iris Bohnet, Bruno Frey & Steffen Huck, *More Order with Less Law: On Contract Enforcement, Trust, and Crowding*, 95 AM. POLI. SCI. REV. 131, 133 (2001) (using a Trust game to test the effect of enforcement on contract performance).

<sup>25</sup> See, e.g., Claudia Landeo & Kathryn Spier, *Naked Exclusion: An Experimental Study of Contracts with Externalities*, 99 AM. ECON. REV. 1850, fn 33 (2009) (using a context-free game to test the effect of communication on exclusive contracts) ; see also Ernst Fehr, Simon Gächter & Georg Kirchsteiger, *Reciprocity as a Contract Enforcement Device: Experimental Evidence*, 65 ECONOMETRICA 833, 836 (1997) (using a repeated Trust game to demonstrate the effect of opportunities for reciprocity on worker effort in the employment contract context).

<sup>26</sup> The choice of an experimental game method in these cases has some notable disadvantages, because it is precisely the explicit contract context that implicates so many informal norms. The context-free approach brings benefits, too, however, including a clean design free as much as possible from confounding variables, and direct comparability with other economics experiments that deal with reciprocity. Study 4 offers a more context-rich approach, and I will also take up a discussion of the generalizability of these results in the Discussion section of this Article.



relationship was represented by the sequence of choices: the first player has to decide whether or not to enter the relationship, not knowing whether the second player will perform. The second player, like the promisor, has already received the benefit of the deal and must decide whether and how to reciprocate the first player's trust.<sup>27</sup>

Of course, in a real contract situation, parties need not trust one another as long as they believe that a court will enforce their respective obligations. In this respect, the Trustee's decision is perhaps best (though not perfectly) analogized to an efficient breach scenario, in which the would-be breacher is better off breaching, but knows that the promisee prefers performance. Does the promisor facing profitable breach take into account the identity of the counterparty when deciding whether or not to perform? This decision is the main variable of interest: when it comes time for the promisor to perform, how does prior assignment affect the probability and quality of performance?

#### A. Method

Study 1 was conducted in the Wharton Behavioral Lab at the University of Pennsylvania. Participants were students and staff at the University of Pennsylvania. They were paid a base rate \$10 for participating in the session, and then the remainder of their earnings was determined by their choices in the game. Subjects were recruited to participate in a series of tasks for different researchers who use the Wharton Behavioral Laboratory. This was the first task of the session. Participants played the game on computers, and could not see one another during the session. Each player picked a number out of a bowl, and used that ID number to log into the game. Subjects played anonymously with one another. Players read the instructions and then took a 6-question quiz about the rules of the game. A research assistant answered any questions.

The game design was as follows.<sup>28</sup> Participants could play the role of Sender, Receiver, or Assignee. (In the experiment, the roles were not named in this way; in keeping with experimental game norms, players just received descriptions of the roles with the labels Player A, B, and C, respectively.)

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<sup>27</sup> Modifications are partly based on the method used by Coffman, in which a passive intermediary player is used to separate the sender and the receiver. Lucas Coffman, *Intermediation Reduces Punishment (And Reward)*, unpublished manuscript, Harvard University, Department of Economics, *on file with author*.

<sup>28</sup> The complete text of the instructions and questions used in Study 3 is provided in the Appendix. With the exception of differences outlined in the Methods section of Study 3, that game uses the same language and sequence of decisions as the game described here.

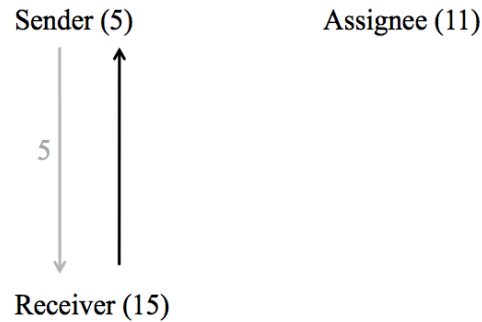
The Sender began with 10 tokens, at an exchange rate of 1 token = \$.50. The Assignee began with 11 tokens. The Receiver began with 0 tokens. The Sender was the first mover. The Sender had the option to keep all 10 tokens or to pass 5 tokens to the Receiver. The Receiver's money then tripled upon receipt, to 15.

If the Sender chose to keep the right to the Receiver's return, the game proceeded like a standard Trust game in which the Receiver then decided how much to return to the Sender. Alternatively, the Sender could choose to "sell" the right to the Receiver's return. If the Sender chose to sell, the Assignee paid 6 tokens for the right to the Receiver's return, meaning that the Sender could choose to transfer the right to the return and take 6 tokens from the Assignee, who was a passive player. This left the Sender with 11 tokens, the Assignee with 5 tokens, and the Receiver with 15 tokens. The Receiver knew whether or not Sender had sold the right, and therefore which player would receive the return. The primary dependent variable in the following experiments is the amount of the Receiver's return, which is the amount the Receiver sent to either the Sender or the Assignee, depending on the Sender's choice. The amount of the return is predicted to be lower when the Receiver is transferring to the Assignee than when the Receiver is transferring to the Sender. Figure 1 shows a diagram of the Receiver's position at the time of return.

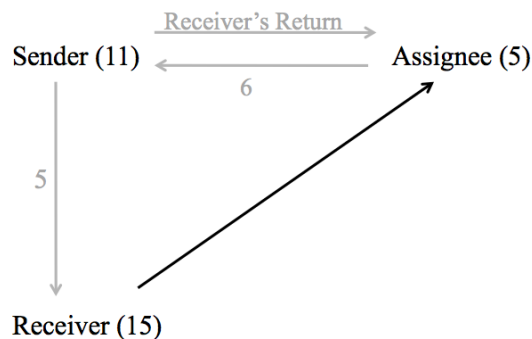
Subjects were randomly assigned to groups of three, but they were not immediately assigned to a role within the group. In order to maximize the amount of data collected, players made a series of conditional choices. They were informed that their payoffs would be determined by their decisions in the roles to which they were respectively assigned, but that they would not know which roles they were playing until after all decisions were made, meaning that a player should make each decision as though she would be assigned to that role.

**Figure 1. Diagram of players' moves at time of Receiver's return decision, when returning to Sender, and when returning to Assignee.**

Return to Sender



Return to Assignee



Note: Schematic of game used in Studies 1-3, shown at time of Receiver return choice. Gray lines and numbers show transfers that have already taken place, and the bold black arrow shows where the Receiver will send her return. Each player's current endowment at the time of the Receiver's decision is indicated in parentheses.

All of the subjects answered the Receiver-role questions first. Half reported first on the return to the Sender (Sender condition) and then on return to Assignee, and half saw the Assignee-return first and the Sender-return question second (Assignee condition). Each subject then reported whether she would pass money to the Receiver if assigned to the role of Sender, and, if so, whether she would sell the right to the return to the Assignee. After all the decisions were made, the computer program randomly assigned roles. Subjects were paid according to the decisions they

had made for the assigned role.

After participants played the game, but before they found out their final payouts, they were asked to answer a series of questions about their feelings and impressions of the game. After each question the subject chose a number from 1 to 7, with 1 being “not at all” and 7 being “very much.”

1. To what extent did you have positive feelings toward Player A when Player A passed 5 to you and did NOT sell the right to your return?
2. To what extent did you have positive feelings toward Player A when Player A passed 5 to you and DID sell the right to your return?
3. To what extent did you feel angry or offended toward Player A when Player A passed 5 to you and DID sell the right to your return?
4. To what extent did you have positive feelings toward Player C?
5. When you were Player B and making a decision about how much money to transfer to Player A (the first mover), to what extent did you feel indebted to Player A?
6. When you were Player B and making a decision about how much money to transfer to Player C, to whom player A had sold the right to your return, to what extent did you feel indebted to Player C?
7. To what extent do you think it is morally wrong to pass back nothing to Player A?
8. To what extent do you think it is morally wrong to pass back nothing to Player C?

### *B. Results*

92 subjects participated over the course of three days, 63 of whom were female.<sup>29</sup> Ages of participants ranged from 18 to 34, with a median age of 21. In the Sender role, 80 chose to pass to the Receiver and 12 to keep the initial endowment. Of the 80 players who passed money to the

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<sup>29</sup> In Studies 1 and 2 using subjects from the Wharton Behavioral Lab subject pool, aggregate demographic data is available, but it is not linked to dependent variable data, so comparisons of men and women are not possible. Analyses in Studies 3 and 4 include sex differences.

Sender, 66 sold the right to the return to the Assignee. The median and mode return to Senders and to Assignees was 5. Average earnings were \$5.09, in addition to the \$10 subjects received as a show-up fee.

#### 1. Main Effect: Back-Transfers to Senders and Assignees

The primary comparison of interest was the amount that players in the Receiver position passed back to the Sender and the Assignee. In order to compare these variables, I organized data analysis as four distinct questions, answered in turn below. A summary of the first three analyses is presented in Table 1.

- a. Did subjects in the Assignee condition (subjects who answered the Assignee question first) return less money than subjects in the Sender condition (subjects who saw the Sender question first)? This is a between-subjects analysis.

Receivers were randomly assigned to return to either the Sender or the Assignee first. This is the basis of the between-subjects analysis. In this case, there was no main effect between-subjects. Receivers returning to Senders returned an average of 3.87 tokens; Receivers returning to Assignees passed 3.85.

- b. Were Receivers in the Assignee condition more likely to be greedy, e.g., to return less than 5, than subjects in the Sender condition?

Similarly, Receivers were no more likely to be stingy with Assignees than they were with Senders. 58% of subjects returning to Senders gave 5 or more; 57% of Receivers returning to Assignees gave 5 or more.

- c. Were Receivers in the Sender condition more likely to be generous, e.g., to return more than 5?

Receivers were significantly more likely to be generous with Senders than with Assignees. 31.3% of Receivers passed back more than 5 to Senders, but only 9.1% did so when passing to a Assignee. This difference is highly significant ( $t=2.75$ ,  $df=79.48$ ,  $p=.0074$ ). A summary of the between-subjects results (analyses presented in a-c) is presented in Table 1.

**Table 1. Receiver Return Rates by Condition**

	Mean Return	Percent Defaulting (return less than 5)	Percent Generous (return more than 5)
Sender Condition	3.87	58%	31.3%
Assignee Condition	3.85	57%	9.1%

Note: Mean return shows how many tokens (worth \$0.50 each) the Receiver in a Trust game returned to either the original Sender, or to an Assignee who had purchased the right to the Receiver's return. Second and third columns code Receiver returns as either defaulting (returning less than the Receiver sent) or being generous (returning more than the Receiver sent).

- d. Did the average subject give less to the Assignee than the Sender (a within-subjects analysis)?

When Receivers returned to both the Assignee and the Sender in turn, they gave less to the Assignee than the Sender. A given Receiver, on average, gave 3.99 to the Sender but only 3.45 to the Assignee ( $t=2.484$ ,  $df=91$ ,  $p=.0148$ ). Another way to think about this difference is that 37.0% of the subjects gave less than 5 when returning to the Sender, but 47.8% were stingy when they were returning to the Assignee ( $t=2.175$ ,  $df=91$ ,  $p=.032$ ).

Interestingly, this within-subjects difference is order-dependent. Subjects who returned to the Sender first gave an average back-transfer 3.85 to Senders and then 3.07 to the Assignees ( $t=2.474$ ,  $df=47$ ,  $p=.017$ ). Receivers in the Assignee condition, returning to Assignee first, gave an average of 3.87 to Assignees and 4.14 to Senders, a non-significant difference (mean difference=.273,  $p=.356$ ). In other words, subjects were willing to decrease their transfer in response to the moral distinction between the cases, but not to increase it, likely a result of motivated reasoning. On the first pass, with little to anchor their responses, the subjects in both conditions transferred a similar average amount. Then, those who saw the Assignee second may have been inclined to reason that the Assignee did not deserve a return as big as the Sender's. Those who saw the Sender second may have been more likely to reason that a transfer good enough for the Assignee is fine for the Sender, too.

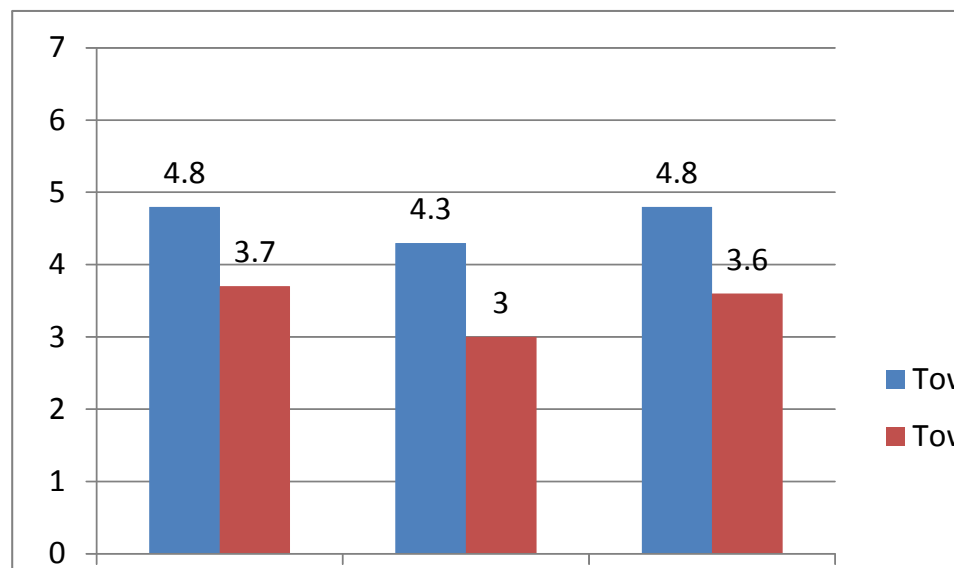
## 2. Survey Responses

Some of the survey questions were meant to get a basic sense of how subjects perceived the game, and others were deliberately comparative (all

comparisons are within-subject). Survey responses did not differ by condition. The primary comparison was in feelings toward Senders vs. Assignees. Figure 2 shows the mean comparisons. Players had more positive feelings about the Sender than the Assignee ( $t=5.55$ ,  $df=91$ ,  $p<.0001$ ). They felt less indebted to the Assignee than the Sender ( $t=6.739$ ,  $df=91$ ,  $p<.0001$ ). Finally, they thought that passing back nothing to the Assignee was significantly less morally wrong than passing nothing to the Sender ( $t=7.805$ ,  $df=91$ ,  $p<.0001$ ).<sup>30</sup>

Subjects felt more positively toward a Sender who held the right to the return than to one who sold it. Subjects rated their positive feelings at 4.75 for a Sender who held the rights and 4.18 for one who sold ( $t=2.836$ ,  $df=91$ ,  $p=.006$ ). Overall, though, subjects were not terribly put off by a Sender who sold. The average rating for anger at a selling Sender was 2.84. Furthermore, participants still had more positive feelings for a selling Sender than for an Assignee. Recall that they rated positive feelings for a selling Sender at 4.18; they rated the level of positive feelings for the Assignee at only 3.67, a significant difference ( $t=3.116$ ,  $df=91$ ,  $p=.002$ ).

**Figure 2. Self-Reported feelings about senders vs. assignees**



<sup>30</sup> One interesting suggestion that this paper does not address is that Receivers were more personally gratified by returning to Senders than to Assignees. This is a plausible explanation, but not one that I have evidence to assess. The survey deals exclusively with moral obligation questions (moral wrongness, indebtedness) and neglects the possibility of moral satisfaction altogether, though the question would be an interesting one for future research.

Note: Feelings questions were answered on a 1 to 7 scale, where 1 was “not at all” and 7 was “very much.”

This study provided some suggestive evidence that subjects distinguished between Senders and Assignees, both in their behavior and in their self-reported feelings. The following study uses a nearly identical method, with the addition of a small penalty. The addition of the penalty serves two purposes. First, it may have the effect of magnifying the costs of cooperation and selfishness. Second, it is intended to roughly mimic the contracts scenario in which parties indeed face external sanctions when they choose to breach.

### III. STUDY 2: ASSIGNED CONTRACT GAME WITH PUNISHMENT

The second experiment was based on a Trust game with a weak sanction. In the original paper describing the Trust game with sanctions, Fehr and Rockenbach permitted Investors to choose the desired back-transfer, and to decide whether or not to impose a punishment on Trustees who did not pass back the desired amount.<sup>31</sup> The results of that study showed that no matter what amount the Investor transferred and requested, the back-transfers were higher when there was no fine imposed and lower when the Investor imposed a fine. In the sanction game, for at least some players, the presence of the sanction “crowds out” the informal reciprocity norm. In the following experiment, players who did not pay back their “debt” with interest (that is, who returned less than 6) forfeited one token to the experimenter. The hypothesis of the study reported below is that the erosion of the norm is exacerbated when the obligation is transferred.

#### *A. Method*

The set-up of the game was exactly the same as that of Study 1, including the same language in the instructions, with the exception of the sanction instruction. Subjects were instructed that if the Receiver returned fewer than 6 tokens, whether to the Sender or to the Assignee, that the Receiver would automatically pay a 1-token penalty to the experimenter. This means that in this game, the expected level of cooperation was made explicit. Note that for all players, it is cheaper to pay the penalty than to obey the rule of returning 6. This study had no post-game survey.

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<sup>31</sup> Ernst Fehr & Bettina Rockenbach, *Detrimental Effects of Sanctions on Human Altruism*, 422 NATURE 137, 138 (2003) (reporting that players in an experimental game were less likely to reciprocate altruistic behavior when a partner could use sanctions to punish non-cooperative behavior).

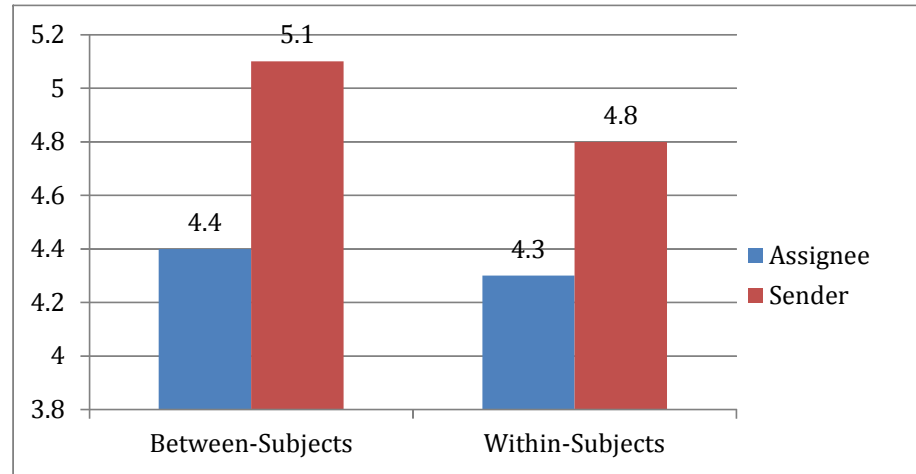


*B. Results*

209 subjects participated in the experiment, including 83 men and 137 women. Age of participants ranged from 18 to 65, with a median age of 21. Subjects received an average of \$4.66 for this game; they were also paid \$10 for showing up and completing other questionnaire studies. This game was the fourth task that the subjects completed during the session. Subjects returned between 0 and 11 tokens. The median and mode return to both Sender and Assignee was 6 tokens.

The primary comparison was between the Receivers' returns to Senders and Assignees, looking first at only the first decision of each player in order to do a between-subjects analysis. In this study, that difference was significant. Receivers in the Sender condition passed back an average of 5.07 tokens. Receivers who passed to the Assignee first passed back an average of 4.35 tokens. This difference is marginally significant, two-tailed ( $t=1.914$ ,  $df=200.9$ ,  $p=.057$ ).

The second question is whether the overall likelihood of "default" differed across condition. Recall that in this study, default is defined differently: any return less than 6 constitutes default, because anything less than 6 is punished with a one-token penalty. Receivers defaulted 27.8% of the time when they were passing to the Sender. When they were passing to the Assignee, they defaulted in 43.6% of cases. This difference is statistically significant ( $t=2.398$ ,  $df=201.3$ ,  $p=.017$ ). In this study, there was no significant difference in generosity (returns greater than 6) across conditions.

**Figure 3. Return Transfers from Receivers to Senders vs. Assignees**

Note: Graph shows between- and within-subjects comparisons of Receiver's return in Study 2, measured in \$0.50 tokens, to either the original Sender in a Trust game, or to a third-party, the Assignee, to whom the Sender has sold the rights to the Receiver's return. Between-subjects data is a comparison between subjects who made the return-to-Sender decision first and those who made the return-to-Assignee decision first. Within-subjects comparisons look to how an average Receiver responded to each condition in turn.

Finally, the within-subject difference between returns to Senders and Assignees was also significant in the predicted direction. On average, a given subject returned 4.34 tokens to the Assignee, a half-token less than the average 4.84 return to the Sender ( $t=3.492$ ,  $df=208$ ,  $p=.001$ ), defaulting on Senders in 33.5% of the cases and on Assignees in 41.1% ( $t=2.707$ ,  $df=208$ ,  $p=.007$ ). As in Study 1, this difference was driven primarily by the subjects in the first condition, who returned to the Sender first. Those subjects, many of whom were generous to the Sender, then gave significantly less to the Assignee in the next round. Subjects who returned to the Assignee first started at a lower return and only rarely increased their transfer in the subsequent return-to-sender decision.

In Studies 1 and 2, subjects showed an overall preference for generosity toward the Sender. This result offers some preliminary support for the hypothesis that the moral obligation to reciprocate the Sender's generosity is more compelling than the obligation to send money to an Assignee who has purchased the return. There are possible objections to this interpretation, and to its applicability to contract, however.

First, one might think the Receiver sends less upon transfer because she is unhappy that the Sender no longer wants to be partners. This would

suggest that the identity of the counterparty is irrelevant, and that the lower returns are a function of the player's annoyance or sense of betrayal rather than the different moral standing of Senders and Assignees. This explanation is at least partially answered by the subjects' reports from Study 1 that they felt little anger toward transferring Senders, and in fact had more positive feelings for a Sender that sent money and then sold the right to the return than for an Assignee.

It is still possible, though, that a Receiver might believe that if the right is sold, it means that the Sender did not think that the Receiver was going to return at least 6. A Receiver might take this as a sign of the norm: Receivers in this game do not reciprocate. This is a problem that Study 3 tries to deal with by enforcing only those transfers that include both a seller (the Sender) and a buyer (the Assignee), meaning that at least one player was expressing optimism about the Receiver's return.

Study 3 also takes up another objection to the interpretation of the results of Studies 1 and 2. The results of the first two studies suggest that reciprocity itself, rather than mere ownership of the right to the Receiver's return, is an important driver of the Receiver's generosity. I have suggested that this has implications for contract; namely, that promisors feel indebted and grateful toward first-performing promisees but do not feel that way toward assignees, and are therefore more likely to breach when breach is profitable. However, generalizability to the contracts context may be limited by an important missing element, mutual agreement. In the first two studies, the Sender voluntarily enters a relationship with the Receiver, but the Receiver's reciprocal obligation is entirely implicit. In the following study, Receivers who want to encourage a Sender to pass money must indicate their explicit agreement to provide a reasonable return.

#### IV. STUDY 3: TRUST GAME WITH AGREEMENT

Study 3 used the core Trust game methodology from Study 2, with the penalty, but included several modifications. The goal was to track the trajectory of the life of a contract, in which the parties agree to an exchange, and the promisee performs soon thereafter. Before the time of the promisor's performance, the promisor is tempted to breach or perhaps just shirk. The promisor then either breaches/shirks or performs, and the transaction is concluded.

For the purposes of the game, this meant a few important changes to the traditional Trust game. Most importantly, the Receiver, the promisor, had to indicate agreement to provide a reasonable return on the Sender's

investment before the Sender, the promisee, chose whether or not to pass money. However, this agreement raised a new problem. Typically we think of breachers as being good-faith dealers who intended at signing to perform on the contract. Between signing and performance, the breachers encounter new information or a change of circumstances, and their intentions change. In this game, and most experimental games, the players would normally have full information about the game from the outset, including the fact that the right to the return may be sold. This means that those who know that they will behave selfishly in one or both cases would either have to admit as much up front—in which case no rational Senders would pass them any money—or they would have to lie. Because many subjects would be uncomfortable with the knowledge that they had lied, there was a real concern that no Receivers would be willing to behave selfishly at all.

In order to get around this problem and encourage some selfishness, Receivers got new information between agreement and return. They learned that both Senders and Assignees would receive a 5-token “bonus” no matter what the Receiver decided. The purpose of this bonus was two-fold. First, the bonus information changed the parameters such that Receivers could feel excused because the game had changed, and they said yes before they understood the situation. More specifically, it made Receiver-default seem less harmful. Senders and Assignees would not be left very badly off from their decision to trust. (In this design, there is no way to know whether those Receivers who ultimately defaulted intended to do so from the beginning, or decided to default after learning about the bonus.)

This game included one additional change noted above. In Study 3, the Sender and the Assignee both had to agree to the transfer in order for the Receiver’s return to go to the Assignee. When the Assignee is passive, one possible interpretation of the Sender’s choice to transfer the right to the return is that the Sender *expects* the Receiver to default. Thus, it could be the signal from the Sender, rather than the identity of the recipient, that causes the increased rate of default. If the Assignee must agree to the transfer, at least one player, the Assignee, would seem to expect the Receiver to perform as promised.

#### *A. Method*

Players were recruited from the University of Pennsylvania student and staff population. Participants played the game in the University of Pennsylvania’s Psychology department computer laboratory, seated at carrels separated so that screens could not be seen by other players. Subjects read the game instructions before they began. The basic game structure

follows the Trust Game reported in Experiments 1 and 2, with modifications as noted. The entire game text is available in the Appendix attached to this article.

As in the previous games, if the Sender chose to transfer 5 to the Receiver, the Sender then chose whether to retain the right to the Receiver's return, or to offer to sell it to the Assignee for 6 tokens. In this game, the Assignee was not passive. The sale of the Receiver's return did not go through unless the Assignee also agreed to it. If both agreed to the sale, the Sender had 11, the Assignee had 5, and the Receiver had 15. Once the Sender's and the Assignee's decisions have been made, the Receiver decided how much to return. Receivers knew that if they return less than 6 to the Sender, they pay one token to the experimenter.

After reading the instructions giving these basic rules of the game, each subject made an initial decision in the role of the Receiver, Player B. They read, "Please answer the following question, which we will show to Player A before he or she makes her transfer decision. If Player A transfers 5 to you, do you agree to return at least 6?" Players then saw a box with the text, "If Player A transfers 5 to me, I agree to return no less than 6 to him/her." They had to click either "I Agree" or "I Do Not Agree" before continuing with the game.

Every subject was then asked to continue to play the role of the Receiver for the first set of decisions. Players indicated their preferred return for two possible situations, one in which they were returning to the Sender and one in which the right had been sold and the return would be passed to the Assignee. Subjects were randomly assigned to two groups. One group saw the return-to-Sender question first, and the other saw the Assignee question first.

Before making that decision, they read the following: "Please note that Player A and Player C will now be given a 5-token bonus by the experimenter at the end of the experiment."

Each player then made all possible decisions in the role of Player A—whether to invest with a Receiver who did agree to return 6, and whether to invest with one who did not; whether to keep the rights to the Receiver's return with a Receiver who did agree to return 6, and whether to keep those rights with one who did not.

Each player then made Player B's decisions, whether or not to buy Player C's back-transfer from Player A when Player C has agreed to

transfer 6 and when Player C has not, respectively. Finally, each participant answered survey questions about their perceptions and reactions to the game before learning the role and payout information.

### *B. Results*

129 subjects participated in this study, 69 of whom were female. Ages ranged from 18 to 48, with a median age of 21.<sup>32</sup>

In the role of Receiver, only 12 of the 129 subjects indicated that they did not agree to return at least 6. Those subjects were excluded from the main analyses, since they had explicitly declined to participate in the contract. When the Receiver agreed to return 6, 72.6% of Senders opted to pass 5 rather than hold their endowments. When the Receiver did not agree, only 17.1% of Senders chose to pass money (remember that in this game, the Sender cannot be sure that she will be able to sell her right to the Receiver's return, unlike the last game in which it always made sense for a Sender to pass 5). Of Senders who indicated that they would pass 5 to a Receiver who had agreed to return at least 6, 51.7% preferred to transfer the right to the Receiver's return to the Assignee. 38.5% of Assignees indicated that they would be willing to pay 6 tokens for the right to the Receiver's return. The median and mode return, to both Senders and Assignees, was 6.

The hypothesis of this study was that Receivers would return less to Assignees than to Senders, feeling that they had a moral obligation to Senders that they did not to Assignees. There was no main between-subjects difference in return to Senders and Assignees, though the trend was in the predicted direction. Receivers who returned to the Sender first gave an average of 4.4 tokens; those who returned to the Assignee first gave an average of 4.1 tokens. There was no between-subjects difference in generosity or stinginess.

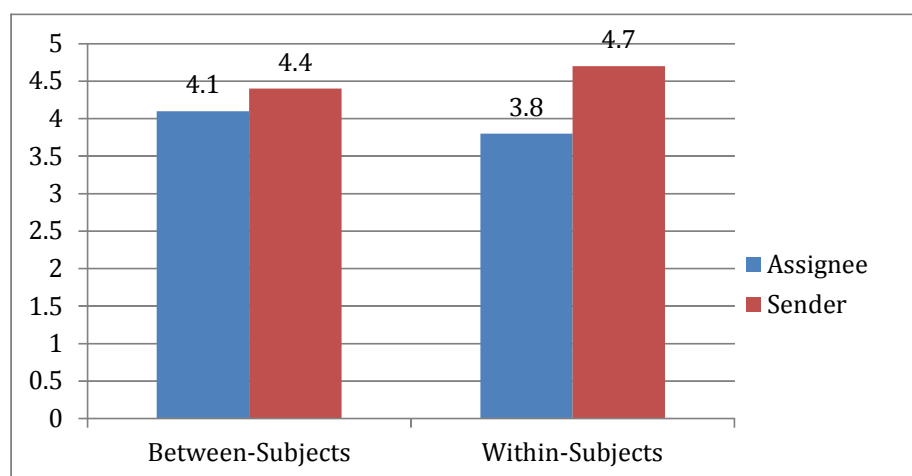
Although subjects were not sensitive to the between-subjects manipulation, the within-subjects results were highly significant. An average subject returned about one token less to the Assignee than to the Sender. Receivers passed an average of 4.74 tokens to Senders and 3.79 tokens to Assignees ( $t=3.78$ ,  $df=116$ ,  $p=.0002$ ). The default rate (passing back less than 6) was 25.6% when Receivers were returning to Senders, but

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<sup>32</sup> There were some differences in responses by sex. Female Receivers returned significantly more overall than male. Collapsing across conditions, women returned an average of 4.7 tokens and men 3.7 ( $t=2.40$ ,  $df=83.4$ ,  $p=.018$ ). However, there were no significant sex differences in terms of the overall hypothesis; both men and women returned less to Assignees than Senders.

43.6% when they were returning to Assignees. The difference was significant irrespective of condition; that is, subjects who returned to Senders first subsequently returned less to Assignees, and subjects who returned to Assignees first subsequently increased their returns to Senders. This result is surprising in light of the strong order effects in within-subjects analyses from Studies 1 and 2. One explanation is that subjects have a difficult time justifying defection toward a particular person to whom they have made a promise, whereas in the first study the duty to reciprocate may involve more “moral wiggle room.”<sup>33</sup>

**Figure 4. Receiver returns to Senders and Assignees, in between- and within-subjects analyses.**



Note: Graph shows between- and within-subjects comparisons of Receivers' returns in Study 3, measured in \$0.50 tokens, to either the original Sender in a Trust game, or to a third-party, the Assignee, to whom the Sender has sold the rights to the Receiver's return. Between-subjects data is a comparison between subjects who made the return-to-Sender decision first and those who made the return-to-Assignee decision first. Within-subjects comparisons look to how an average Receiver responded to each condition in turn.

As in the first experiment, subjects reported feeling significantly more indebted to Senders than Assignees, with mean indebtedness ratings of 4.64 and 2.76, respectively ( $t=9.697$ ,  $df=116$ ,  $p<.0001$ ). They rated default with respect to the Assignee as 3.43 on a seven-point scale, where 7 was “extremely immoral”, but default with respect to the Sender as a 4.81

<sup>33</sup> See, e.g., *Exploiting Moral Wiggle Room: Illusory Preference for Fairness? A Comment*, 4 J. JUDGMENT & DEC. MAKING 467 (noting that generosity observed in experiments may be induced by situational norms rather than a real preference for the observed outcome, such that introducing ambiguity into the situation gives some “wiggle room”).

( $t=8.576$ ,  $df=116$ ,  $p<.0001$ ).

These results provide some strong, though not unequivocal, support for the main hypothesis. When faced with the paired decisions to return to the promisee and the assignee, subjects were more generous with promisees. However, the effect was diminished when they faced one decision without the context of the other. This may be a matter of the salience of the distinction, or it may be simply a question of low power. Within-subjects results were more uniformly significant across studies. The table below shows within-subjects comparisons of default rates in each of the three studies.

**Table 2. Within-Subjects Comparisons of Default Rates, Studies 1-3**

	Returning to Sender	Returning to Assignee
Study 1	38.0%	47.8%
Study 2	33.5%	41.1%
Study 3	25.6%	43.6%

Note: In Study 1, default is defined as a return less than 5, the Sender's initial transfer. In Studies 2 and 3, default is any return subject to the one-token penalty. Returns less than 6 were penalized. All within-subjects default rates are significantly higher for returns to Assignees than to Senders.

The results reported in Table 2 offer some evidence that no matter what the explanation, subjects clearly made explicit, conscious distinctions between Senders and Assignees in the game setting, and they were willing to allocate funds accordingly. The following study represents a preliminary effort to demonstrate the relevance of these results for contractual exchange in context, using a hypothetical contracts case to draw out subjects' intuitions about assigned contracts.

#### V. STUDY 4: ASSIGNED CONTRACT SCENARIO

The goal of the final study was to investigate the generalizability of the first three results. The study predicted that people draw a moral distinction between the obligation to perform for a promisee and the obligation to perform for the assignee of the original promisee's rights *in the particular context of contract*. Study 4 was conducted online, using a hypothetical contracts case presented in two conditions, a control condition and a condition in which the contract was described as having been assigned.

##### A. Method

Subjects were members of an online panel recruited over a ten-year



period, mostly through their own efforts at searching for ways to earn money by completing questionnaires. Approximately 90 percent of respondents were U.S. residents (with the rest mostly from Canada). The panel is roughly representative of the adult U.S. population in terms of income, age, and education but not in terms of sex, because (for unknown reasons) women predominate in this respondent pool. An email was sent to about 500 members of the panel with the title of the study, the payment, and a link to the survey site. After 160 subjects had responded, the link was disabled and the study was closed.

The first page provided brief instructions.<sup>34</sup> Each subsequent page described a hypothetical contract situation, and asked subjects to answer follow-up questions, including a space for optional comments. Subjects were required to answer all questions (except the optional comments) to proceed. The particular experimental comparison described here was part of a larger survey project, but I will only report the results of the assignment/no assignment comparison.

Each subject saw the case in each of the two conditions, Control and Assigned. Subjects were randomly assigned to one of two groups; one group saw the Control condition first and the other the Assigned condition. After reading each scenario, subjects were asked to report a willingness-to-accept (WTA) level for breaching a contract.

This scenario showed subjects an efficient breach situation, and asked them to take the perspective of the would-be breacher. The assignment is sketched out somewhat crudely from a legal perspective, but it is intended to communicate to subjects the basic gist that the promisee's right to performance (a delivery, here) has been sold to a third party without consultation with the promisor. Furthermore, the scenario and the questions purposely push the subject to think about the contract in economic terms. The contract in question is not one with subjective valuation or sentimental attachment concerns, and both parties are commercial actors. The contract includes a liquidated damages clause in order to suggest that the parties themselves had already contemplated the possibility of breach and damages. Furthermore, subjects did not have the option of reporting that they would not breach at any price, though they could enter a very high number. The decision to nudge subjects toward a more economic view of contracts is intentional, and, ideally, makes the results presented here conservative. The hypothesis is that even when subjects are asked to think about their

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<sup>34</sup> The study is publicly available at: <http://finzi.psych.upenn.edu/~baron/ex/tess/mort4.htm>.

contracts in very cold, rational terms, they still distinguish between the promisee and an assignee.

The Assigned condition read as follows:

Please imagine that you own a small manufacturing business, specializing in computer chips. You have recently been called by a retailer to provide 1,000 units of your best-selling chip. It costs you \$1 to produce each unit, and you will sell them for \$2 each, so you will make a total profit of \$1,000 on this job. The retailer is happy with this price, as the next-cheapest manufacturer is charging \$3,000 for the same order. You sign a basic form contract, agreeing on the price, the delivery date, and the specifications of the parts. The contract also includes the following clause:

“If the delivery is not made for any reason, Manufacturer will pay Johnson Industries \$1,000 in money damages.”

Shortly after signing the contract, the retailer sells the contract to another company, Wilson Computers. **This means that Johnson Industries sold their right to buy the chips at the stated price to Wilson.** The transfer of the contract will not affect your obligations in any way, just who will receive the delivery.

A week before you are scheduled to deliver the parts, an out-of-town client calls to place a large, rush order for 1,000 computer chips. The out-of-town client is in a hurry and really wants to impress a big customer, and so they offer much more than your usual going rate. However, you are not a big enough operation to be able to provide chips for both customers. If you do not sell the chips to Wilson Computer, you will have to pay them \$1,000 under the contract. (When a contract is sold, all of the rights and obligations are transferred, including any provisions for money damages.)

You were expecting a \$1,000 profit. You have to pay Wilson Computers \$1,000, and it will cost you another \$1,000 to produce the chips, meaning that any offer from the out-of-town client over \$3,000 would be profitable for you. Given that, what is the smallest amount the out-of-town client could offer such that you would accept that job?

The Control case was identical except that it omitted mention of Wilson

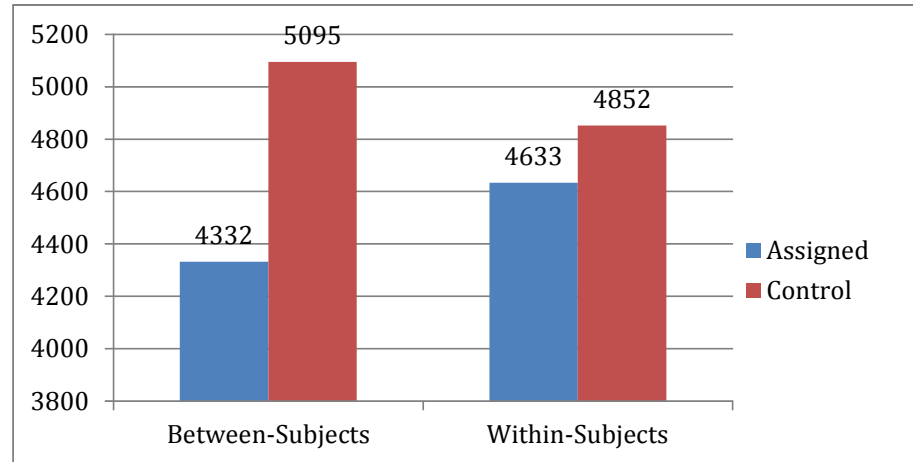
Computers. Subjects reported their answer to the main dependent variable in a free-response box. If they gave a number smaller than 3000 or larger than 10000, they saw a pop-up box that read, "You have entered [their response]. Is this what you intended?"<sup>35</sup> Subjects were also asked to report on how immoral it would be to breach the contract, on a scale from 1 to 100.

### *B. Results*

160 subjects were paid \$1.50 each to complete the short study. Ages ranged from 20 to 71, with a median age of 41. 33% of respondents were men. There were no significant effects of sex on responses.

Overall, subjects in the Assigned Contract group indicated that they would breach for substantially less money than subjects in the Control group in a between-subjects analysis. In the Control case, subjects indicated that they would require \$5,095.17, compared to \$4332.22 in the Assigned case ( $t=2.381$ ,  $df=135.13$ ,  $p=.019$ ). Subjects also reported that it would be significantly more morally wrong to breach in the Control case ( $t=1.945$ ,  $df=127.96$ ,  $p=.054$ ). On a 100-point scale, they rated the immorality of breach as 62.1 in the Control case, and 52.3 in the Assigned case. Both variables were also significantly different within-subject. That is, for a given subject, the average mean difference on the morality score between conditions was 7.96 ( $t=4.664$ ,  $df=158$ ,  $p<.0001$ ) and the average mean difference for the WTA variable was \$231.33 ( $t=2.25$ ,  $df=149$ ,  $p=.026$ ). There were no significant differences by sex or age.

**Figure 5. Lowest dollar amount at which subjects indicate willingness to breach a contract.**



Note: Data from Study 4, showing between- and within-subjects analyses of subjects differential willingness-to-accept responses in efficient breach scenarios, depending on whether the recipient of performance is the original promisee (Control) or the assignee (Assigned).

Although the within- and between-subjects trends went clearly in the same direction here, the magnitude of the difference, particularly for the WTA variable, is quite different. An additional analysis compared the between-subjects responses of subjects who showed no within-subject difference on the Morality and WTA variables. That is, I confined the analysis to subjects who gave identical answers across conditions, and then compared the WTA response of those in the Control condition, who saw the Control question first, to the WTA response of those in the Assigned condition, who saw the Assigned question first. The pattern of results was nearly identical to that of the larger data set—many subjects explicitly reported that the cases should be treated the same, but in fact their responses depended heavily on which condition they were in.<sup>36</sup> This means that even subjects who did not explicitly believe that the two situations should be

<sup>36</sup> Of the 111 subjects who said that they would breach at the same dollar amount irrespective of assignment, those who saw Control said that they would not breach for less than \$5044.81; those who saw Assigned first said that they would not breach for less than \$4371.59. The difference is marginally significant, two-tailed ( $t=1.850$ ,  $df=101.57$ ,  $p=.067$ ). The same trend is true for the 88 subjects who reported that there was no moral difference between the two conditions. Of that sub-category, those who saw the Control case first rated breach as a 61.60 on the immorality scale, and those who saw Assigned first had an average immorality rating of 50.86. The difference is not significant ( $t=1.528$ ,  $df=73.35$ ,  $p=.131$ ), but the direction and magnitude of the difference are in line with that of the overall subject pool.

treated differently *did* treat them differently when the items were presented separately and subjects had no basis for comparison.<sup>37</sup>

## VI. DISCUSSION OF RESULTS

Taken together, these four studies have two overarching results. First, subjects believe that it is less immoral to behave selfishly toward an assignee than toward a promisee; second, they in fact behave more selfishly when paired with an assignee. Players in Studies 1 and 3 reported that they had more positive feelings for the Sender than the Assignee felt less indebted to the Assignee than the Sender, and felt that it was less immoral to return nothing to the Assignee than to return nothing to the Sender. Subjects in Study 4 reported that breach was less immoral in the assigned condition.

Overall, study participants' financial decisions reflected their moral judgments. In all three games, Receivers who participated in both two-party and assigned contract conditions returned significantly less overall to the Assignee than to the original Sender. Studies 1 and 2 also showed between-subjects effects of the assignment manipulation, meaning that even when subjects were not primed to think comparatively about the Receiver and the Assignee, they still responded as predicted. Finally, the results from Study 4 show preliminary evidence that the intuition demonstrated in the experimental games is robust in the contracts context.

These results fit squarely into the growing body of research on the connection between moral and legal decision-making. In each of the four studies, within-subjects differences were significant. That is, participants who thought about the difference between two-party and assigned contracts determined that the moral obligation of the assigned contract was less compelling (or perhaps that the moral satisfaction of altruism was diminished with respect to the assignee); in turn, they were less likely to perform in the face of economic incentives to default. In at least some cases, this formulation appears to be at the level of conscious thought. In addition to the explicit view that selling a contract weakens its moral force, these results also indicate that assigning a contract may have some implicit, non-conscious framing effects, as evidenced by the between-subjects results in Studies 1, 2, and 4.

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<sup>37</sup> Notice that this analysis also suggests that subjects' beliefs about likely reputation effects were not the primary driver of their responses. If they believed that breaching a non-assigned contract would be more expensive because of increased reputation costs—presumably a conscious consideration—the within-subjects difference would mirror the between-subjects difference.

What these results cannot do is identify how these two effects (the conscious belief and the implicit prime) relate to each other in a given context, which would require a better understanding of the psychological mechanism at play. There are at least three distinct explanations for a subject's preference for promisees over assignees. The first is a basic reciprocity effect, in which the promise is irrelevant, and the only question is whether or not one's counterparty has done something worthy of reciprocal generosity. In this view, we might see less performance on an assigned contract because the promisor has no feelings of goodwill or gratitude toward the assignee. This explanation is in line with the first two studies, which show the basic difference between returns to promisees vs. assignees in a study with no explicit promising element.

A second possible explanation is that promising itself is party-specific. It may not matter what the promisee has done to deserve the performance, it only matters that the promisor has made the commitment. This explanation would suggest that the promise itself is narrow, that it includes both the direct and indirect object: I promise to do *something* for *someone*. Once a particular promisee is out of the picture, non-performance is not immoral.

Third, the reason that people feel differently about assigned contracts may be that the assignment is a signal that the transaction is purely economic, impersonal, and that the informal norms of reciprocity and promise are irrelevant. Once one party signals that trust is irrelevant, breaching the contract is not a breach of trust. This effect may operate at the level of conscious belief or as an implicit prime. In Study 4, even subjects who reported that the promisee and assignee ought to be treated the same often treated them differently, favoring promisees.

In all likelihood, the assigned contract effect is overdetermined, with each of these explanations playing a causal role. In fact, typical assignments also involve other factors that are likely to push in the same direction. For example, in these studies, there are no salient differences between assignors and assignees, but in the real world, it is usually small firms assigning rights to larger ones. Insofar as people may feel more sympathetic toward a smaller, more personal counterparty, this would compound the assignment effect. Future research should focus on how the norms of reciprocity and promise relate to each other, and how we can tease apart their effects on decision-making.

Finally, these studies have several methodological limitations, which I iterate here in order to suggest an appropriate level of caution in interpreting the results, and to note some unanswered questions that could be fruitfully

addressed in future research. The first limitation of these studies is that they are uniformly low stakes. Subjects have no material incentive to respond truthfully to a hypothetical case, and the prospect of \$5-\$7 in the laboratory game may be trivial. Generalizability may be further limited by some fundamental differences between the set-up of the laboratory game and the typical features of a contract. Most important, Studies 1 through 3 followed experimental economics norms and did not use any words related to contracting, including “promise,” “contract,” or even “assignment.”

Results from Study 4, which gave a richer context to the decision, show the same predicted result, but have other limitations in terms of extrapolating from a briefly described, no-stakes hypothetical to a real contracts context. Further, interpreting the results of Study 4 is difficult insofar as we cannot be sure how subjects interpreted the assignment. Some subjects may have understood that a long-term assignment and delegation arrangement was made, whereas others may have simply understood (as intended) that the delivery should be made to a new person.

The goal of this project was to test the basic assignment effect. Taken together, the studies offer some evidence that the effect exists, with important caveats about generalizing too broadly. Below, I suggest that the next step for this kind of research is to turn to the real world, using existing data and field studies to ask how assignment matters for contract performance in particular industries.

## VII. FUTURE RESEARCH: ASSIGNED CONTRACTS IN THE REAL WORLD

Fruitful avenues of future research may lie in studying the assignment effect within discrete contracts domains, using existing experiments as well as field data. This paper can offer only the most preliminary treatment of these implications, so I sketch them out primarily as a means of motivating new behavioral decision research in particular, high-stakes contracts. For example, legal scholars have assumed that only the reason that debt collectors draw so much ire is because of their outrageous, aggressive tactics.<sup>38</sup> This research suggests, though, that even when a debt collection agency legally owns the right to repayment, its demand for repayment may not have the same motivating force as the moral obligation to pay the creditor back for its valuable services. Accounts that focus solely on abuses by collection agencies ignore the fact that many debtors are confused and outraged in part because their respective collectors are not parties to whom they intended to be bound. Similarly, in the mortgage context, debt is often

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<sup>38</sup> William L. Prosser, *Insult and Outrage*, 44 CAL. L. REV. 40, 48 (1956).

assigned well before the borrower is in trouble, but the assignment may nonetheless affect repayment rates. Economists studying mortgage-backed securities have found that even controlling for borrower characteristics (e.g., riskiness of the loan), foreclosure rates are higher for mortgage-backed securities in which originating lenders are not affiliated with the ultimate sponsor or servicer of the pool,<sup>39</sup> and other experimental findings suggest that the identity of the mortgage holder may be one factor (among many, to be sure) to affect a strategic default decision.<sup>40</sup> Until now, the focus of this kind of study has been on how and whether originators have shared information about borrowers with subsequent investors. This paper suggests another avenue of inquiry—whether or not buyers knew and cared that their loan had been transferred or securitized. Finally, assignment has been explicitly raised as a threat to the success of microlending contracts.<sup>41</sup> Microfinance institutions (MFIs) have been particularly savvy about using peer lending circles, but case studies of creditors' efforts to collect on loans from MFIs in Uganda, Kenya, Indonesia, and India suggest that when the local MFI must transfer servicing to a creditor organization on liquidation, borrowers are much less likely to repay.<sup>42</sup> Scholars and policy-makers have approached this as a problem of complicated logistics, but, as in the first two examples, an additional problem may be that the replacement of the original institution is not in accord with borrowers' understandings of their legal and moral obligations under the loan agreement. These are areas in which moral intuitions about contract assignment may have noticeable effects on borrower behavior.

#### CONCLUSION

As legal and economics scholars have pointed out, the ability to freely transfer contracts is vital to modern society. It permits parties to shift risk to those who can best bear it, in turn creating a flow of credit to those who most value it. However, the psychology of an obligation changes when the

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<sup>39</sup> See, e.g., Cem Demiroglu & Christopher James, *Works of Friction? Originator-Sponsor Affiliation and Losses on Mortgage-Backed Securities* 1, 5 (2011), available at <http://www.hbs.edu/unites/finance/pdf/Frictions.pdf>.

<sup>40</sup> Tess Wilkinson-Ryan, *Breaching the Mortgage Contract: The Behavioral Economics of Strategic Default*, 64 VAND. L. REV. 1547, 1574 (2011) (finding that participants in a questionnaire study reported that they would default on a home with a higher value when the loan had been assigned).

<sup>41</sup> Jessica Diehl, *Microfinance in Emerging Markets: The Effects of the Current Economic Crisis and the Role of Securitization*, 5 BUS. L. BRIEF (AM. U.) 37, 41 (2009) (describing the costs and benefits of using securitization to fund microfinance).

<sup>42</sup> Daniel Rozas, *Throwing in the Towel: Lessons from MFI Liquidations* (2009), available at: <http://www.microfinancegateway.org/p/site/m//template.rc/1.9.38716>.



obligation is sold. Of course, moral convictions about the meaning of contract are beside the point when performance is much cheaper than breach. But when performance is costly, morals do matter. These studies offer preliminary evidence that when contracts are assigned, they have less moral force, because there is no room for reciprocity. When a debt is sold, it becomes impossible to repay one's lender and fulfill the moral obligation of loan, leaving the moral status of performance to the third party unclear. Overall, it may be easier to transfer a legal obligation than a moral one.

**Appendix: Study 3 Instructions, Quiz, and Game**

Welcome. This is an experiment in the economics of decision-making. You will be paid for your participation in the experiment, as detailed on the next page. Please do not talk or try to communicate with other participants until the conclusion of the experiment. If at any time you have a question or there is a problem with your computer interface, please raise your hand and wait for an experimenter to come by and assist you. Throughout the experiment, it is important that you not continue on to the next task until the experimenter asks you to do so. At these junctures, you will be prompted NOT to click "continue" until the experimenter asks you to do so.

This experiment does not use deception. Everything in the instructions that follow is true, including the rules and payoffs. Also keep in mind that everyone is receiving the same set of instructions.

--- Next Screen ---

For this task you will be asked to make decisions that affect yours and/or others payments in the following manner. First, each participant in the lab will be randomly assigned to a group of 3 players. The other two members of your group will be people in this room; there are no computer players. There are three different roles in the group (A, B, and C), and each participant will make a decision in each role. After all decisions have been made, the computer will randomly determine which role will be assigned to each person in your group, and you will be paid according to the decisions you made in that role as well as those of your group in their roles respectively. Please note that all decisions will be made using tokens and that each token will be worth \$0.50 when calculating your final payment. You will all be playing the following game:

Player A will begin the game with 10 tokens, Player B will begin with 0 tokens, and Player C with 11 tokens.<sup>43</sup> Player A will make the first decision and will decide whether to keep their initial 10, or keep 5 and pass 5 to Player B. If Player A decides to pass 5, that money will be tripled, and Player B will receive 15. This leaves Player A with 5, Player B with 15, and Player C with 11. Once Player B has received the 15, he or she will have an opportunity to return any amount of that money to Player A on an equal exchange rate. This means that for every dollar Player B returns, Player A gains 1 on top of the 5 they still have, and Player B loses 1 from

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<sup>43</sup> In Study 3 only, and on this screen only, players read the incorrect information that Player C would be endowed with 10 tokens. The research assistant running the sessions informed players of the mistake, which was not repeated on the following pages.

the 15 they have.

However, once Player A has given 5 to Player B, Player A can transfer the “right” to whatever amount Player B returns to the third person, Player C, for a fixed price of 6 tokens. If Player A wishes to transfer to Player C, C will be asked if they want to give A 6 tokens for the right to B’s return. If both Players A and C agree to the sale, Player A will have 11 tokens and Player C will have 5 tokens. Player B would then return any amount of their 15 tokens to Player C, and Player C would end up with their 5 tokens, plus whatever amount Player B returned to them. Please note that Player B will be aware to whom they are returning tokens.

--- Next Screen ---

A summary of the game is as follows:

- Player A begins with 10 tokens, Player B with 0 tokens, and Player C with 11 tokens.
- Player A has an option to pass 5 tokens to Player B, which then triples to 15 tokens.
- If Player A chooses to pass 5 tokens, he then has the option to transfer the right to Player B's return for 6 tokens to Player C.
- If Player A wishes to transfer the right to the return, Player C will be asked if they want to accept this transfer.
- If Player A and Player C agree to the transfer, Player B passes money back to Player C.
- If Player A does not want to transfer the right to the return, or Player C does not accept the transfer, Player B passes money back to Player A.
- If Player B returns any amount less than 6 tokens, regardless of who they are passing back to, they pay a 1-token penalty to the experimenter.

Remember, you will make decisions for three different roles, but you will only be paid for one iteration of the game. Furthermore, all three roles are equally likely to be chosen by the computer for a given person. Therefore, you should make decisions in each role in the manner that you would actually like them to be made in the case that that role determines your payment.

If you have any questions about the rules of the game, the roles, or the payment format, please raise your hand now and an experimenter will come by to assist you.

If not, please click the button below to take a brief quiz on the rules of the game.

-----Next Screen-----

The quiz is intended to test your understanding of the basic rules and instructions of the game you are about to participate in. There will be six True/False questions, and you will need to get all six correct in order to advance. If you have any questions about the instructions or the answers, please raise your hand and an experimenter will assist you.

----Next Screen----

[Each quiz question was its own screen. After clicking either “True” or “False” for each question, subjects saw an explanation of the answer. If their response was incorrect, they saw a pop-up window telling them that they had answered incorrectly and must try again.]

Question 1: Each participant in the lab will be randomly assigned to a group of 4 players.

False, each group has three players (none of whom are computer players).

Question 2: Player A makes the first decision and decides whether to keep the initial 10 tokens or to pass as many tokens to Player B as Player A likes.

False, Player A starts with 10 tokens and has the option of either keeping the initial 10 tokens or keeping 5 tokens and passing 5 tokens to Player B.

Question 3: If Player A passes 5 tokens to Player B, those tokens are then quadrupled.

False, if Player A passes the 5 tokens to Player B then those tokens are tripled. This results in Player A having 5 tokens, Player B having 15 tokens, and Player C still having 11 tokens.

Question 4: If Player A has given 5 tokens to Player B, Player A can then try to transfer the “right” to whatever amount Player B returns to a third player, Player C, for a fixed price of 10 tokens.

False, Player A can try to transfer the “right” to whatever amount Player B returns for a fixed price of 6 tokens. If Player C accepts this transfer, Player A will have 11 tokens, Player B will have 15 tokens minus whatever amount is given to Player C, and Player C will have 5 tokens plus whatever amount Player B returns.

Question 5: If Player A has given 5 tokens to Player B, then Player A can keep the returns from Player B by choosing not to transfer the “rights” to Player C.

True, Player A has the option of trying to transfer his “rights” to player C for 6 tokens or keeping the rights and taking the returns of Player B.

Question 6: Player B is not aware of whom he is returning tokens to and does not have to pay the experimenter if he returns any amount less than 6.

False, Player B is aware of who he/she is returning tokens to and does have to pay the experimenter 1 token if he/she returns any amount less than 6.

---Next Screen---

You are starting your decisions in the role of Player B. Player A’s decision to transfer money to you may depend on your willingness to return money to him or her. Please answer the following question, which we will show to Player A before he or she makes her transfer decision. If Player A transfers 5 to you, do you agree to return at least 6?

If Player A transfers 5 tokens to me, I agree to return no less than 6 to him/her.

I agree

I do not agree

---Next Screen---

You will now make your return decision as Player B. Keep in mind that since you do not know which role will count towards your payment, you should make every decision as if it will count. There is no strategic incentive to do otherwise.

Please note that Players A and C will now be given a 5 token bonus by the experimenter at the end of the experiment.

You are Player B and have been given 5 tokens by Player A, which has now tripled to 15 tokens. Player A did not transfer the right to any amount you return, so you will be returning money to Player A. Please write in the amount, if any, that you wish to give to Player A.

Remember—if you give back any amount less than 6 tokens to Player A, you will automatically pay 1 token to the experimenter.

Please write in the amount of tokens you wish to give to Player A in this box. Note that you cannot give more than your 15 token allotment. Please write the amount as XX.XX or X.XX with no asterisk sign): \_\_\_\_

---Next Screen---

You will now make another decision in the role of Player B.

You are Player B and have been given 5 tokens by Player A, which has now tripled to 15 tokens. Player A has since transferred the right to any amount you return to Player C, and Player C has accepted the transfer. Please write in the amount, if any, that you wish to give to Player C.

Remember—if you give back any amount less than 6 tokens to Player C, you will automatically pay 1 token to the experimenter.

Please write in the amount of tokens you wish to give to Player c in this box. Note that you cannot give more than your 15 token allotment. Please write the amount as XX.XX or X.XX with no asterisk sign): \_\_\_\_

---Next Screen---

You are now making decisions in the role of Player A. Please keep in mind that you will now be given a 5 token bonus at the end of the experiment.

As Player A, you have been given 10 tokens from the experimenter and must choose how it is used. You may keep the 10 tokens now, or you may pass 5 tokens to Player B.

If you pass 5 to Player B, that money will be tripled to 15 and Player B, who started with 0, may send you back any amount up to 15 tokens. Your final payment would therefore be made up of the 5 tokens you still have, plus the amount given back to you by Player B (if any).

However, once you have passed the 5 to Player B, you may also try to transfer the right to any money returned by Player B to a third player, Player C, for a set price of 6 tokens. If you choose to transfer the right to Player B's return for 6 tokens, Player C will decide whether they wish to accept this transfer for the rights to B's return for 6 tokens, and if they do, your final payment will be the 11 tokens (the 5 you have plus the 6 from transferring the rights).

If Player B AGREED to return no less than 6 to you, please decide whether you would like to keep the 10 tokens or give 5 tokens to Player B.

Keep the 10       Give 5 to Player B

---Next Screen---

You are now making decisions in the role of Player A. Please keep in mind that you will now be given a 5 token bonus at the end of the experiment.

As Player A, you have been given 10 tokens from the experimenter and must choose how it is used. You may keep the 10 tokens now, or you may pass 5 tokens to Player B.

If you pass 5 to Player B, that money will be tripled to 15 and Player B, who started with 0, may send you back any amount up to 15 tokens. Your final payment would therefore be made up of the 5 tokens you still have, plus the amount given back to you by Player B (if any).

However, once you have passed the 5 to Player B, you may also try to transfer the right to any money returned by Player B to a third player, Player C, for a set price of 6 tokens. If you choose to transfer the right to Player

B's return for 6 tokens, Player C will decide whether they wish to accept this transfer for the rights to B's return for 6 tokens, and if they do, your final payment will be the 11 tokens (the 5 you have plus the 6 from transferring the rights).

If Player B DID NOT agree to return no less than 6 to you, please decide whether you would like to keep the 10 tokens or give 5 tokens to Player B.

Keep the 10       Give 5 to Player B

---Next Screen---

You are now making decisions in the role of Player A. Please keep in mind that you will now be given a 5 token bonus at the end of the experiment.

As Player A, you have been given 10 tokens from the experimenter and must choose how it is used. You may keep the 10 tokens now, or you may pass 5 tokens to Player B.

If you pass 5 to Player B, that money will be tripled to 15 and Player B, who started with 0, may send you back any amount up to 15 tokens. Your final payment would therefore be made up of the 5 tokens you still have, plus the amount given back to you by Player B (if any).

However, once you have passed the 5 to Player B, you may also try to transfer the right to any money returned by Player B to a third player, Player C, for a set price of 6 tokens. If you choose to transfer the right to Player B's return for 6 tokens, Player C will decide whether they wish to accept this transfer for the rights to B's return for 6 tokens, and if they do, your final payment will be the 11 tokens (the 5 you have plus the 6 from transferring the rights).

For the situation where B AGREED to return no less than 6 tokens, do you want to keep the rights to Player B's return, or transfer them to Player C for 6 tokens (assume that C has agreed to the transfer, otherwise you will have to accept B's return)?

Keep the rights yourself       Transfer the rights to C for 6 tokens

---Next Screen---

You are now making decisions in the role of Player A. Please keep in mind



that you will now be given a 5 token bonus at the end of the experiment.

As Player A, you have been given 10 tokens from the experimenter and must choose how it is used. You may keep the 10 tokens now, or you may pass 5 tokens to Player B.

If you pass 5 to Player B, that money will be tripled to 15 and Player B, who started with 0, may send you back any amount up to 15 tokens. Your final payment would therefore be made up of the 5 tokens you still have, plus the amount given back to you by Player B (if any).

However, once you have passed the 5 to Player B, you may also try to transfer the right to any money returned by Player B to a third player, Player C, for a set price of 6 tokens. If you choose to transfer the right to Player B's return for 6 tokens, Player C will decide whether they wish to accept this transfer for the rights to B's return for 6 tokens, and if they do, your final payment will be the 11 tokens (the 5 you have plus the 6 from transferring the rights).

For the situation where B DID NOT agree to return no less than 6 tokens, do you want to keep the rights to Player B's return, or transfer them to Player C for 6 tokens (assume that C has agreed to the transfer, otherwise you will have to accept B's return)?

Keep the rights yourself                       Transfer the rights to C for 6 tokens

---Next Screen---

You will now make your decision as Player C. What do you want to do if Player B AGREES to transfer back 6 tokens to Player A if A invests, and Player A chooses to give 5 tokens to Player B but then wishes to transfer the rights to B's return to you for 6 tokens?

If you choose to accept the transfer, you will give 6 tokens of your 11 to Player A and will receive more tokens depending on what Player B returns to you. If you decline the transfer, you will keep your 11 tokens and Player A will receive the amount returned from Player B.

Keep your current endowment of 11 tokens                       Transfer 6 tokens to Player A and receive Player C's back-transfer

---Next Screen---

Now that you've made your first choice, what do you want to do if Player B DOES NOT agree to transfer back 6 tokens to Player A if A invests, and Player A chooses to give 5 tokens to Player B but then wishes to transfer the rights to B's return to you for 6 tokens?

Remember, if you choose to accept the transfer, you will give 6 tokens of your 11 to Player A and will receive more tokens depending on what Player B returns to you. If you decline the transfer, you will keep your 11 tokens and Player A will receive the amount returned from Player B.

Keep your current endowment of 11 tokens

Transfer 6  
tokens to Player  
A and receive  
Player C's  
back-transfer

---Next Screen---

[Players then answered the questionnaire described in the Methods section of Study 1, and received their final payout information on the final screen.]