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Gender differences in giving in the Dictator Game: the role of reluctant altruism

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Abstract

The Dictator Game has been a helpful tool to study whether men or women are more generous. But recent work suggests that motivations other than generosity also influence behavior in this game. Image concerns and expectations management may cause dictators to "give reluctantly"; that is, to share money with the recipient if asked to, but to renege on their gifts if they can do so without being detected. We provide evidence from two separate experiments that females are more likely than males to give reluctantly in the Dictator Game. After accounting for retraction of gifts, males and females transfer similar amounts to the recipient in expectation. The results suggest that gender differences in non-payoff-related motivations may play a role in producing gender differences in giving in the Dictator Game.

Keywords Gender · Dictator Game · Reluctant altruism

JEL codes C91 · J16 · D64

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1 Introduction

Understanding whether and under what circumstances men and women differ in their social preferences has important economic implications. Gender differences in social preferences may play a role in producing differences in the labor market (Bertrand 2011). And differences in charitable preferences may call for gender-specific fund-raising strategies (De Wit and Bekkers 2016). One way by which the economists study gender differences in social preferences is by looking at how males and females allocate money in the Dictator Game (Forsythe et al. 1994).

The body of evidence from Dictator Games is unclear on whether males or females are more generous, although a robust finding seems to be that males are more efficiency-oriented and females are more focused on equity (Andreoni and Vesterlund 2001 for a first result; Niederle 2016 for a review). While this literature centers its attention on examining gender differences in preferences over payoffs—efficiency, equity, pure and impure altruism—another line of work unrelated to gender has shown that non-payoff-related motivations such as expectations management and image concerns may also influence giving in the Dictator Game (Dana et al. 2006; List 2007; Bardsley 2008; Andreoni and Bernheim 2009). There is growing evidence that such motivations may cause individuals to behave as "reluctant altruists", sharing money when asked to, but avoiding the situation or reneging on their gifts if they can do so without being detected (Broberg et al. 2007; Lazear et al. 2012; Cain et al. 2014).

In this paper, we draw from these literatures to examine whether males and females display different rates of reluctant altruism, and what this may mean for how we interpret gender differences in giving in the Dictator Game. We find consistently across two laboratory studies (total $N = 634$) that females give more in the Dictator Game, but are also more likely to retract their gifts, to the extent that expected transfers in the end become similar across gender. Our results suggest that females are influenced by non-payoff-related motivations to a larger degree than males, and this may explain at least in part the initial gender differences in giving. Our study is, however, unable to tease out in detail the different mechanisms that may drive the results, although we discuss some possibilities.

2 Experiment design

We conduct two laboratory experiments, one at the Pittsburgh Experimental Economics Laboratory, and one at the Centre for Experimental Social Sciences in Santiago, Chile, that follow similar procedures. In both the experiments, participants in a session are randomly and anonymously matched in pairs. Each participant makes two decisions over an allocation of money for the pair. At the end of the experiment, only one allocation from one member of the pair is randomly selected for payment. Participants make the first decision not knowing the instructions for the second decision.

For the first decision, participants play a Dictator Game in the role of dictator and recipient ex ante. Each participant privately decides how to allocate the endowment between herself and the partner, while the partner makes the same choice. In Pittsburgh, the endowment is 10 US Dollars (USD) and must be divided in multiples of 1 USD. In Santiago, the endowment is 5000 Chilean Pesos (CLP) and must be divided in multiples of 500 CLP.[1] Participants see payoffs expressed in local currency. However, to simplify comparisons across experiment locations, throughout the paper we express payoffs in terms of ECU, where 1 ECU equals 1 USD in Pittsburgh and 500 CLP in Santiago. Thus, in both locations, participants have 11 possible allocations of ECU to choose from (10–0, 9–1, …, 0–10).

For the second decision, each participant faces two possible allocations between herself and the partner: (i) the allocation she selected for the first decision, and (ii) 9 ECU for herself and 0 ECU for the partner. The computer randomly assigns (i) or (ii) to the participant as the allocation that counts for this part, but before assignment, the participant must indicate the probability with which she wants to be assigned option (ii). The probability must be between 10 and 90 percent (inclusive) and the complement probability is the chance that she gets assigned (i). Once the participant indicates a probability, the computer randomly selects an option using these weights. At the end of the experiment, if this part is selected for payment, one member of the pair is randomly selected, and only the option assigned to this member is revealed to the partner and implemented for payment. Participants are never informed of the probabilities selected by their partners.

The first decision provides a measure of the dictator's generosity from 0 to 10 ECU. The second decision provides a measure, between 10 and 90 percent, of the dictator's willingness to retract her allocation and instead receive 9 ECU and leave the partner with 0 ECU. This is a quiet, or discreet, retraction, in the sense that if 9–0 realizes, the recipient never learns how the dictator divided the 10 ECU in the first decision or what probability she selected in the second decision. The recipient cannot even precisely infer that the dictator moved the odds at all in favor of the 9–0 option, because there is always at least a 10 percent probability that this option realizes regardless of the dictator's choice. Note that if dictators allocate money in the Dictator Game based solely on payoff considerations, they have no incentive to select a retraction probability larger than 10 percent, since doing so increases the chance they obtain a monetary outcome that is strictly less efficient than the initial transfer, and for which an option existed in the Dictator Game that increases either the dictator's payoff (10–0) or the recipient's payoff (9–1) without hurting the other party. But if dictators divide the endowment influenced by other motivations, such as a concern for not appearing selfish (to themselves or to the recipient) or for not disappointing expectations, then dictators may find it attractive to retract quietly. Conditional on giving at least 2 ECU in the Dictator Game, dictators who select a larger retraction probability increase the expectation of their own payoff at the expense of the recipient's, without letting the recipient know that they are doing this.

[1] Endowments are fairly similar in purchasing power across locations: at the time of sessions in Santiago, 5000 CLP exchange for approximately 8 USD.

Dictators may even be able to convince themselves that such behavior is not selfish, by reasoning that there remains at least a 10 percent chance that their initial allocation gets implemented. Or they may be able to rationalize to themselves that the computer is now to blame for the final outcome. Our experiment cannot disentangle these and other potential motivations, but it can begin to examine whether they influence males and females to different extents. If they do, this may suggest that the gender differences in giving in the Dictator Game may stem in part from differences in non-payoff-related motivations.[2]

To conclude this section, we describe the differences between the Pittsburgh and Santiago experiments. In Pittsburgh, the decisions described previously are made within a larger experiment on charitable donations (Klinowski 2016). In that experiment, prior to playing the Dictator Game, participants earn money from a slider task (Gill and Prowse 2012) and a clicking task. The purpose of these tasks in the experiment is to endow participants with money they earn, and to make the experiment's question of interest less obvious to the participants. The tasks are designed such that it is fairly easy for participants to earn the maximum possible (15 ECU). After completing the tasks, participants have an opportunity to donate any fraction of their earnings to a charity. After deciding whether and how much to donate, participants face the Dictator Game (over 10 additional ECU) and the retraction choice. Final earnings in the experiment are the sum of the task earnings net of donations, plus the earnings from the Dictator-and-Retraction Game. Earnings prior to the Dictator Game and net of donations are 14.20 ECU for males and 13.94 ECU for females (t test $p=0.104$). In our analysis here, we present results with and without controlling for task earnings net of donations.

We designed the Dictator-and-Retraction Game in Pittsburgh as a secondary tool in the larger experiment, with the goal of constructing a "reluctance measure" that might explain donation behavior. We did not anticipate to find gender differences in this measure. But after observing such differences, we considered them interesting and valuable enough to merit separate treatment, which led to the writing of an earlier version of this paper. Following comments from an anonymous referee, we conducted a second experiment that only involved the design components discussed in this paper and that examined the robustness of the results. This is the Santiago experiment.

In Santiago, prior to playing the Dictator Game, participants solve a slider task, whose purpose is simply to make the experiment's question of interest less obvious to the participants. All but one participant earn 4 ECU in this task (the maximum possible). After completing the slider task, participants face the Dictator Game

[2] Our design is inspired by Dana et al. (2006), who run a Dictator Game with dictators and recipients sitting in separate rooms. After deciding how to allocate $10, dictators face a binary choice between implementing their allocation, or taking $9 and leaving $0 for the recipient while also leaving the recipient unaware that the game was played. In our design, we ask dictators to choose a retraction probability between 10 and 90 percent, rather than giving them a binary choice, to obtain a more granular measure of preferences over retraction, and to be able to implement the retraction quietly while dictators and recipients sitting in the same room. This also implies that instructions are common knowledge at all times in our experiment.

(over 10 additional ECU) and the retraction choice. Final earnings in the experiment are the sum of their task earnings, their earnings from the Dictator-plus-Retraction Game, and a 4 ECU show-up fee. The Online Appendix presents instructions and screenshots for the two experiments.

In Pittsburgh, 308 undergraduate students (153 males) participated in 14 gender-mixed sessions each lasting approximately 60 min. In Santiago, 328 undergraduate students (168 males) participated in 19 gender-mixed sessions each lasting approximately 30 min.[3] The experiment in Pittsburgh was programmed in zTree (Fischbacher 2007). The experiment in Santiago was programmed in oTree (Chen et al. 2016), with recruitment via ORSEE (Greiner 2015).

3 Results

3.1 Giving in the Dictator Game

We begin by examining transfers in the Dictator Game. The mean transfer is 1.80 ECU in Pittsburgh and 2.94 ECU in Santiago. 47 percent of participants transfer a non-zero amount in Pittsburgh, while 76 percent of participants do so in Santiago. More than 99 percent of participants keep for themselves at least half of the endowment in either experiment location. Thus, while participants in Santiago appear more generous than those in Pittsburgh, transfers in general are fairly in line with typical Dictator Game behavior (Camerer 2003).

We are most interested in the gender differences in transfers. Figure 1 plots the distribution of amounts transferred by dictators, separated by gender and experiment location. The height of each bar (ignoring color shades) represents the fraction of participants who transfer a given amount to the recipient. Across locations, female transfers tend to be larger than males', and females are less likely than males to be completely selfish. In Pittsburgh, females also appear more likely than males to split the endowment evenly, while no such difference exists in Santiago.

To formalize these results, we run regressions that predict (a) the amount transferred, (b) the probability that the dictator transfers nothing, and (c) the probability that the dictator splits the endowment evenly. We estimate (a) with OLS, and (b) and (c) with probit regressions. For all outcomes, we regress the outcome on a female indicator, and control for the dictator's age. For Pittsburgh data, we control in addition for the dictator's net earnings prior to playing the Dictator Game, and for whether the dictator is a native English speaker. We conduct separate regressions for each experiment location, and also regressions pooling data from both locations (in which case we include a location fixed effect). We bootstrap standard errors from 1000 replications (in these and all other regressions in the paper, significant results are unchanged if we use robust standard errors instead).

[3] Of these, two male subjects participated twice in Santiago. We dropped their second participation (two observations) from the data.

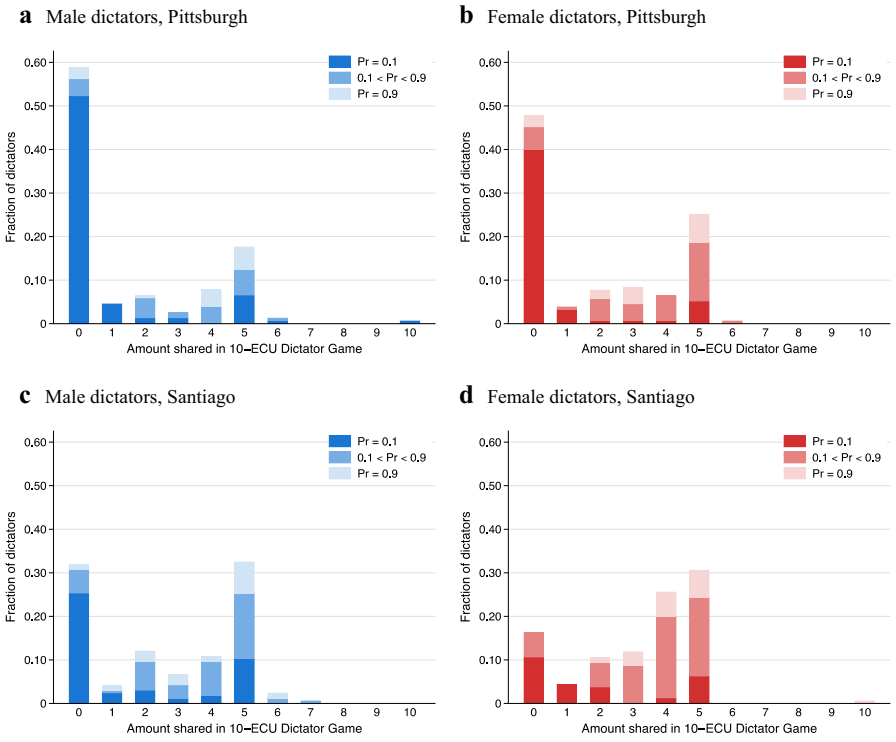

Fig. 1 Distribution of amount shared in the Dictator Game. Color shades indicate the fraction of dictators who select a retraction probability equal to 10 percent (dark shade), larger than 10 and smaller than 90 percent (medium shade), and equal to 90 percent (light shade) (color figure online)

Table 1 presents the results (Table A1 in the Appendix replicates the regressions without controls, with similar results).

Relative to male, female transfers are on average 0.403 ECU larger in Pittsburgh ($p=0.098$), 0.562 ECU larger in Santiago ($p=0.012$), and 0.495 ECU larger when the data are pooled ($p=0.003$). In the pooled data, a Mann–Whitney U test rejects that male and female transfers come from the same distribution ($p=0.009$). Females are also significantly less likely to keep the entire endowment for themselves, by 11.8 percentage points in Pittsburgh ($p=0.037$), 15.6 percentage points in Santiago ($p=0.001$), and 13.6 percentage points when the data are pooled ($p<0.001$). In the pooled data, a Fisher's exact test rejects that the proportion of participants who keep the entire endowment for themselves is the same for males and females ($p<0.001$). Finally, we find inconsistent evidence that females are more likely than males to split the endowment evenly: they are 8.2 percentage points more likely to do so in Pittsburgh ($p=0.083$), but there are no statistical gender differences in Santiago or when pooling the data. In the pooled data, a Fisher's exact test fails to reject that males and females are equally likely to share the endowment evenly ($p=0.474$), but finds females to be more likely than males to share 4 or 5 ECU ($p=0.018$).

Table 1 Giving in the Dictator Game

	a. Amount transferred			b. Prob. transfer nothing			c. Prob. split evenly		
	Pittsburgh	Santiago	Pooled	Pittsburgh	Santiago	Pooled	Pittsburgh	Santiago	Pooled
Female	0.403* (0.244)	0.562** (0.223)	0.495*** (0.169)	−0.118** (0.057)	−0.156*** (0.046)	−0.136*** (0.038)	0.082* (0.047)	−0.017 (0.054)	0.031 (0.034)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.091	0.046	0.087	0.051	0.056	0.089	0.054	0.012	0.025
N	308	326	634	308	326	634	308	326	634

Marginal effects on the (a) amount of ECU transferred by dictators, (b) the probability that the dictator transfers nothing to the recipient, and (c) the probability that the dictator splits the endowment evenly with the recipient. Estimates from OLS in (a) and probit regressions in (b) and (c), that control for the dictator's age, and in Pittsburgh in addition for the dictator's net earnings prior to the Dictator game and for whether the dictator is a native English speaker. Pooled regressions include a location fixed effect. Bootstrapped standard errors from 1000 replications in parentheses

*$p<0.1$

**$p<0.05$

***$p<0.01$

Thus, on balance, females appear to be more altruistic than males in the Dictator Game, as they transfer larger amounts on average and are less likely to keep the entire endowment for themselves. These results are largely in line with those of Andreoni and Vesterlund (2001), who find that females are less likely than males to be perfectly selfish and more likely to seek equality.

3.2 Choice of retraction probability

But this picture changes when we consider responses to the opportunity to retract allocations. Recall that dictators must select the probability (between 10 and 90 percent) with which their allocation is to be replaced by one that gives 9 ECU to themselves and 0 ECU to the recipient. Any payoff-related motivation predicts that dictators select a retraction probability equal to 10 percent; yet, we find that a large fraction of dictators in both experiment locations choose a larger probability. To illustrate this, the shades of the bars in Fig. 1 indicate the fraction of participants who select a retraction probability equal to 10 percent (dark shade), greater than 10 and smaller than 90 percent (medium shade), and equal to 90 percent (light shade). In total, 41 percent of dictators in Pittsburgh and 65 percent of dictators in Santiago select a probability larger than 10 percent. It is noteworthy that, among dictators who transfer 2 or more ECU initially, 79 percent of them in Pittsburgh and 81 percent of them in Santiago select a retraction probability larger than 10 percent, while only 13 percent in Pittsburgh and 25 percent in Santiago do so among dictators who transfer nothing in the Dictator Game. This suggests that the dictators do not choose probabilities at random, but rather do so purposely, largely to retract their transfers.[4]

As before, we are most interested in the gender differences. Across experiments, we find that females select larger retraction probabilities than males, and are more likely to select probabilities larger than 10 percent. To formalize these results, we run regressions following the specifications described previously, but change the outcome of interest to (i) the dictator's selected retraction probability (estimated with OLS), and (ii) the probability that the dictator selects a retraction probability larger than 10 percent (estimated with a probit). Table 2 presents the results (Table A2 obtains similar results without the inclusion of controls). Females select larger retraction probabilities on average than males: 9.57 percentage points larger in Pittsburgh ($p=0.005$), 6.50 percentage points larger in Santiago ($p=0.054$), and 7.68 percentage points larger when that data are pooled ($p=0.001$). In the pooled data, a Mann–Whitney U test rejects that male and female retraction probabilities come from the same distribution ($p<0.001$). Females are also more likely than males to select a retraction probability larger than 10 percent: 17.6 percentage points more likely in Pittsburgh ($p=0.002$), 17.4 percentage points more likely

[4] This is not to say that transferring 0 ECU and then selecting a retraction probability larger than 10 percent is a mistake or noise in the data. This behavior can also be rationalized by non-payoff-related motivations, such that the dictator is willing to give up 1 ECU to hide from the recipient the fact that they acted selfishly in the Dictator Game, or that the dictator is engaging in "moral cleansing" or "conscience accounting" after having acted selfishly in the Dictator Game (Sachdeva et al. 2009; Gneezy et al. 2014).

Table 2 Choice of retraction probability

	a. Retraction p			b. Prob. retraction $p > 10\%$		
	Pittsburgh	Santiago	Pooled	Pittsburgh	Santiago	Pooled
Female	9.569*** (3.401)	6.500* (3.372)	7.676*** (2.385)	0.176*** (0.057)	0.174*** (0.052)	0.172*** (0.037)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.0407	0.0206	0.0560	0.0395	0.0416	0.0647
N	308	326	634	308	326	634

Marginal effects on the (a) dictator's selected retraction probability and (b) the probability that the retraction probability is larger than 10 percent. Estimates from OLS in (a) and probit regressions in (b), that control for the dictator's age, and in Pittsburgh in addition for the dictator's net earnings prior to the Dictator game and for whether the dictator is a native English speaker. Pooled regressions include a location fixed effect. Bootstrapped standard errors from 1000 replications in parentheses

*$p < 0.1$

**$p < 0.05$

***$p < 0.01$

Table 3 Amount transferred accounting for retraction

	a. Expected transfer			b. DG transfer–expected transfer		
	Pittsburgh	Santiago	Pooled	Pittsburgh	Santiago	Pooled
Female	0.021 (0.164)	0.161 (0.158)	0.121 (0.115)	0.383** (0.160)	0.401** (0.165)	0.374*** (0.113)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.0962	0.0251	0.0429	0.0546	0.0316	0.0655
N	308	326	634	308	326	634

Marginal effects from OLS regressions on (a) the expected amount of ECU transferred by dictators given the selected retraction probability, and (b) the difference between the amount transferred by the dictator in the Dictator Game and the expected transfer. Regressions control for the dictator's age, and in Pittsburgh in addition for the dictator's net earnings prior to the Dictator Game and for whether the dictator is a native English speaker. Pooled regressions include a location fixed effect. Bootstrapped standard errors from 1000 replications in parentheses

*$p<0.1$

**$p<0.05$

***$p<0.01$

in Santiago ($p=0.001$), and 17.2 percentage points more likely when the data are pooled ($p<0.001$), and a Fisher's exact test on the pooled data also rejects equality of proportions across gender ($p<0.001$).

Conditional on giving 2 or more ECU in the Dictator Game, retracting increases in expectation the dictator's advantageous inequality over the recipient (Fehr and Schmidt 1999). Since, conditional on giving at least 2 ECU, females are more likely than males to select a retraction probability larger than 10 percent (see Table A3), in this part of the experiment females appear less likely than males to seek equality and more likely to favor their own payoff at the expense of the recipients—a conclusion opposite to the one we reach by examining behavior in the Dictator Game.

3.3 Overall transfers to the recipient

How do differences in retraction affect final monetary outcomes? To examine this, we calculate the expected transfer to the recipient, accounting for the probability of retraction selected by the dictator. The expected transfer is $\left(1-p_{\text{retract}}\right)\cdot Y$, where p_{retract} is the retraction probability and Y is the amount shared in the Dictator Game. If there are no gender differences in choices over p_{retract}, gender differences in expected transfers should replicate gender differences in Y (for which we found that females tend to transfer on average significantly larger amounts than males). But what we see is that, on average, expected transfers to the recipient are statistically similar across gender. To make these results precise, we use OLS regressions that follow the previous specifications, to predict (i) the expected transfer to the recipient and (ii) the difference between the dictator's initial transfer and the expected transfer.

Table 3 presents the results (replicated in Table A5 without controls, with similar results). Across experiment locations and also when the data are pooled, mean expected transfers are statistically indistinguishable across gender: the difference

is 0.021 ECUs in Pittsburgh ($p=0.900$), 0.161 ECUs in Santiago ($p=0.307$), and 0.121 ECUs with the pooled data ($p=0.293$). However, a Mann–Whitney U test does reject that the distribution of expected transfers in the pooled data is the same for males and females ($p=0.013$); thus, there continues to be a statistical gender difference in terms of the full distributions. When we look at the difference between the Dictator Game transfer and the expected transfer, this difference is significantly larger for females than for males: by 0.383 ECUs in Pittsburgh ($p=0.016$), by 0.401 ECUs in Santiago ($p=0.015$), and by 0.374 ECUs when the data are pooled ($p=0.001$). In the pooled data, a Mann–Whitney U test rejects that the difference is distributed similarly across gender ($p<0.001$). Thus, these results suggest that the female dictators retract their transfers to a significantly larger extent than males, and that once we account for this behavior, we find that on an average males and females transfer similar amounts to the recipient in expectation.

4 Discussion

Female dictators in our experiments share larger amounts and are less likely not to share at all than males. At face value, this suggests females are more generous. Yet, females are also more likely to quietly increase their own payoff at the expense of the recipient's, resulting in a strictly less efficient, unambiguously Pareto-inferior allocation. Whatever motivations drive this behavior, they seem unable to be characterized by preferences over payoffs, and seem to be influencing females to a larger extent than males.

Perhaps an explanation to these findings that does not invoke non-payoff-related motivations is that males are more efficiency-oriented than females, or, alternatively, that females are simply more susceptible than males to being given an opportunity to revise a decision. Both of these explanations make no prediction over behavior in the Dictator Game, but predict that females be attracted to the 9–0 allocation more than males. However, if this alone drove the results, we would expect females to retract more than males across all levels of giving in the Dictator Game, which is not what we see. A gender difference in the likelihood of retraction appears for dictators who give 2 or more ECU in the Dictator Game (Table A3), but not for dictators who give 0 or 1 ECU (Table A4).

Given that females make larger transfers in the Dictator Game, one may argue that it is reasonable to see them retract more, because they have a larger monetary incentive to do so. Of course, they had the same monetary incentive not to share money to begin with, so we can suspect that it is not selfishness what drives retractions. In fact, we can show that the amount of money to potentially gain from retracting does not explain the decision to retract, and that females are more likely than males to retract even controlling for the monetary incentive to retract. Regressing the likelihood that a participant selects a retraction probability larger than 10 percent on the amount transferred in the Dictator Game, conditioning on transfers being at least 2 ECU, finds an insignificant effect of the amount transferred (Table A6 Column

1).[5] Moreover, the size of the gender gap in the likelihood of selecting a retraction probability larger than 10 percent, conditioning on transfers being at least 2 ECU, is unchanged when we introduce the amount transferred in the Dictator Game as additional control (compare the female coefficient in Table A6 Colum 2 vs. Column 3). This reinforces the view that motivations other than a concern for payoffs are involved, and affect females more than males.

What are these non-payoff-related motivations? We can only speculate, as our experiment alone cannot shed much light on specific mechanisms. One plausible explanation is that females have greater concern for not disappointing expectations (their own or the recipient's), or are more observant to what Camerer and Thaler (1995) call manners and etiquette in the Dictator Game. Thus, females act more generously, unless they have an opportunity to be selfish discreetly. Consistent with this explanation are findings from the charitable giving literature that males and females respond at equal rates to a door-to-door solicitation, but females become less generous when they can easily avoid the solicitor (DellaVigna et al. 2013), or that females are more image-concerned when donating to a charity (Jones and Linardi 2014) or when volunteering effort to a cause (Exley 2018). Another explanation may be that females in the experiment are more likely than males to engage in motivated reasoning over what it means to be generous when choosing a retraction probability. That is, conditional of transferring 2 or more ECU in the Dictator Game, dictators may argue to themselves that selecting a retraction probability larger than 10 percent is not a selfish act, because there remains some chance that their initial transfer gets implemented. Gino et al. (2016) survey ample evidence that individuals exploit such uncertainty to act egoistically while still feeling moral. Such behavior could explain our findings, if females are more able than males to stretch the extent to which they select a higher retraction probability while still feeling generous (though we are not aware of direct evidence that females are more likely than males to engage in motivated reasoning). Yet another explanation comes from Croson and Gneezy (2009), who review the literature on gender and preferences, and argue that differences in giving may stem from females being more sensitive to the particular context of the experiment.[6] This is consistent with our findings, if females are more likely than males to take the Dictator Game as a cue that one should share money, and to take the retraction choice as a cue that one should not share money. Evidently more research is needed to assess the merits of these and other explanations.

[5] Thus, we fail to replicate Broberg et al.'s (2007) finding that subjects who make larger donations in the Dictator Game are more prone to exit. In fact, participants who transfer 5 or more ECU in our Dictator Game are 13 percentage points less likely to select a probability larger than 10 percent than participants who transfer 2–4 ECU ($p=0.003$, from regressions analogous to Table 3b with the pooled data). This result seems to be more in line with findings of within-subject positive correlation in prosocial behavior across tasks, such as in Dariel and Nikiforakis (2014).

[6] Although Niederle (2016) suggests a different interpretation to the findings in the literature.

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