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# Responding to (Un)Reasonable Requests

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## Abstract

We consider the notions of static and dynamic reasonableness of requests in a trust game experiment. We vary systematically the experimental norm of what is expected from trustees to return to trustors, both in terms of level of each request and in terms of sequence of the requests. Static reasonableness matters in a self-biased way, in the sense that low requests justify returning less but high requests tend to be ignored. Dynamic reasonableness also matters, in the sense that, if requests keep increasing, trustees return less than if requests of different size are presented in random or decreasing order. Requests never systematically increase trustworthiness, but may decrease it.

**Keywords:** trust; trustworthiness; norms; reasonableness; moral wiggle room; moral licensing.

**JEL classification codes:** C91; D01; D03; D63.

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## 1. Introduction

It is commonly believed that compliance is ubiquitous in social life. People may respond to explicit and implicit requests by modifying their behavior according to what they are requested to do. Managers in organizations may find this particularly helpful, and there is a variety of other contexts where it can also be useful, such as tax compliance and public good contribution (Cadsby, 2006; Silverman et al., 2014). An overlooked factor that may influence compliance is the reasonableness of the request. When you explicitly or implicitly ask someone to do something, it is likely that her willingness to fulfil your request depends on how reasonable such a request is perceived. We try to operationalize the idea of reasonableness and to study its effect on compliance in the context of a fiduciary relationship.

Our baseline is a simple trust game in which the trustor has to decide whether to send or not her entire monetary endowment and the trustee, in turn, has to decide what proportion, if any, to send back. We investigate whether and to what extent merely asking the trustees to send back positive amounts helps in bring about more or less socially beneficial outcomes, and whether this depends on the reasonableness of the request.

The request is simply a message to the trustee saying that the experimenters expect him or her to send back to the trustor a given share of what she received. We make clear that the subjects are free to do whatever they want, and we vary whether the truster knows this message or not, with having this knowledge (or lack thereof) being known to the trustee. The traditional interpretation of trust responsiveness (Guerra and Zizzo, 2004; Bacharach et al., 2007; Pelligra, 2005, 2010) or guilt aversion in the context of the trust game (Dufwenberg and Gneezy, 2000) is that providing such information, if believed as affecting the belief of the trustor, could increase the sensitivity of the trustee to the request. An alternative interpretation is that experimental demand (Zizzo, 2010) is

sufficient to fulfil the role of inducing guilt aversion (Dufwenberg, 2002; Battigalli and Dufwenberg, 2007; Chang et al., 2011) or conformist preferences (Naef and Sontuoso, 2015), as it helps shape what is the appropriate social norm to be followed.<sup>1</sup> Our information manipulation relates to Ellingsen et al.'s (2010) manipulation of disclosing the first order expectation by the truster to the trustee and determining whether this is correlated with the return rate.<sup>2</sup> In the context of our experiment, it works as a robustness test of our findings.

We argue that the experimentally induced norm is taken into account if reasonable. Reasonableness is defined both along a *static* dimension and a *dynamic* dimension. The static dimension relates to the absolute size of the request being made. Assume that a request coincides with the trustee's prior, e.g. her or his understanding of the social norm to be followed. Such a request can be considered reasonable. Assume that a request is lower than the trustee's understanding of the social norm to be followed. In our model, such a request will also be reasonable and leads to an adjustment of the amount returned along the lines of the request. Now assume that the request is higher than the trustee's understanding of the social norm to be followed. Such a request will be deemed unreasonable and the trustee will stick to her or his prior. Our analysis bears a relationship to research on 'self-serving' biases (Babcock and Loewenstein, 1997; Konow, 2005; Valdesolo and DeSteno, 2008; Xiao and Bicchieri, 2010), 'moral wiggle room' (e.g., Dana et al., 2007; Grossman, 2014; Regner and Matthey, 2015; Khalmetski, 2016), as well as on how excuses are sought for engaging in more negative behavior (e.g., Hargreaves Heap and Zizzo, 2009; Abbink and Herrman, 2011; Karakostas and Zizzo, 2016). It relates to Naef and Sontuoso (2015), which find a self-biased response to information about peer behavior.

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<sup>1</sup> Or, equivalently, one could think of trust responsiveness *towards the experimenter*.

<sup>2</sup> Based on the finding of a lack of correlation, Ellingsen et al. (2010) argue that a false consensus effect drives evidence for guilt aversion. Khalmetski et al. (2015) show that heterogeneity in the responses to such knowledge may be an explanation for such lack of correlation. In different experimental settings, Vanberg (2008) and Kawagoe and Narita (2014) also argue against guilt aversion relative to alternative explanations. Evidence in support of guilt aversion relative to alternative explanations includes Reuben et al. (2009), Bellemare et al. (2011), Bracht and Regner (2013), Khalmetski (2016), Attanasi et al. (2016) and Ederer and Stremitzer (2016). In a dictator game setting, Hauge (2016) finds evidence both of an aversion to letting down others' belief and an aversion to letting down moral standards.

The dynamic dimension reflects the fact that the reasonableness of the request may be shaped by experience with previous requests. Intuitively, if the requests keep becoming higher, this may be seen as more unreasonable than if requests keep becoming lower. In the second case, the subject may be all too happy to comply with the lower request; in the first case, and insofar as previous requests are partially used as anchors for what is reasonable, the subject may find offers more unreasonable.

The idea that an increasing sequence of requests may be seen less favorably than a decreasing sequence of requests is compatible with experimental evidence that an increasing sequence of prices leads to lower sales than a decreasing sequence of prices (Sitzia and Zizzo, 2012). It is also consistent with evidence that in bargaining settings better outcomes may be obtained by starting tough and then becoming softer than vice versa (Hilty and Carnevale, 1993). There is also a connection between our approach and that on reference-dependent altruism (e.g., Breitmoser and Tan, 2013, 2014) and on normative expectations (e.g., Bicchieri, 2015; Andreoni and Bernheim, 2009), as well as (in its dynamic reasonableness aspect) with adaptation theory in marketing (Morris and Gene, 1990), decision by sampling in cognitive psychology (Stewart et al., 2006) and the debate on “foot-in-the-door” and “door-in-the-face” techniques of obtaining compliance within organizational psychology (Cialdini and Goldstein, 2004).

As in Cadsby (2006) and Silverman et al. (2014), and as discussed methodologically in Zizzo (2010), we deliberately use experimental demand as a treatment manipulation, i.e. in our study experimental demand is not a confound but rather a tool of the experimental design – in the case of our paper, to study the reasonableness of demands. The reason this tool is useful in our context is because it enables an exogenous and systematic manipulation in both the level and the order of the requests. By doing this, we can have possible requests across the whole range (from 10% to the

whole of the pie) and have them systematically for all of the trustees; and we can have systematically different orders in which we present the requests.

Our key results provide support for the relevance of both the static and the dynamic reasonableness of the requests. We find that requests are either ineffective in raising trustworthiness, or, if lower than trustees' priors, perversely effective in reducing it. The rest of the paper is organized as follows. Section 2 more precisely defines static and dynamic reasonableness and our experimental hypotheses in the context of our trust games. Section 3 presents the experimental design, while sections 4, 5 and 6 contain the results, discussion and conclusions respectively.

## **2. Defining Reasonableness and Experimental Hypotheses**

### **2.1 The Basic Setup**

In this section we define static and dynamic reasonableness using a very stylized model. In our modified 2-player version of the trust game, Player A can either send his or her monetary endowment ( $e$ ) to B or not. If A invests, player B can send back any amount between 0 and  $3e$ . B has a belief ( $b'$ ) of what is expected of her in terms of amount to return. The experimenter may send a request ( $S$ ) with regard to this expectation, and, depending on the treatment,  $S$  is also shared with A. We extend Dufwenberg (2002) and Battigalli and Dufwenberg (2007) (BD henceforth) to consider the role of the experimenter in influencing the expectation via the request. Specifically, we assume that player B is guilt averse and that guilt is an increasing function of what is expected of her by the experimenter. If we make the further assumption that knowledge of such expectation is perceived to lead to a change in the first order belief by A on how much B will return, guilt is an increasing function of what is expected of her by player A as well. We further extend BD's intuition by assuming that guilt is also mediated by the (un)reasonableness of A's (or the experimenter's) expectations. While we frame the analysis in terms of guilt, it could be equivalently be framed in

terms of social image costs from deviations from the defined experimental norm (Ellingsen et al., 2010), and therefore in terms of the reasonableness of such experimental norm.

We take as benchmark for reasonableness, B's "natural" level of trustworthiness, that is, what she sends back when there is no request and consider as reasonable all those requests that are lower than the "natural" level and as unreasonable those requests that are higher than the benchmark.

Reasonable requests affect player's utility as in the BD's model, by inducing guilt in case the player decides not to fulfil them. Guilt, in turn, depends on a subjective sensitivity parameter and on player's second order beliefs about the other player's (or the experimenters', in our setting) expectations. When the requests become unreasonable (higher than the reasonable payoff), the effect of guilt fades away.

## 2.2 Static Reasonableness

Static reasonableness is a subjective measure equal to what the trustee sends back to the trustor when there is no explicit request (as in round 1 of our experimental set-up). We denote  $\pi_A^n$  be B's baseline prior level of trustworthiness, that is, A's payoff given by what B sends back to her without any explicit request;  $\pi_A(a, b')$  denotes A's expectation about her payoff, when she plays strategy  $a$ , and she believes B plays strategy  $b$  ( $b'$  represents A's first order belief about B's strategy). Analogously,  $\pi_A(a', b'')$  is B's belief about A's payoff given that B thinks A plays  $a$  and A believes that B plays  $b$  ( $b''$  represents B's second order belief). This belief, when the experimenters send their request, is assumed to be equal to the request.

When the difference  $R_A = \pi_A^n - \pi_A(a', b'') \geq 0$ , the expectation is reasonable. If  $R_A < 0$ , the expectation is unreasonable (or, at any rate, less reasonable). We also denote with  $G_B$ , player B's subjective sensitivity to guilt.

Reasonableness acts on B's utility as a filter  $\pi_A^F(a', b'')$  on his beliefs about A's or the experimenter's expectations. Reasonable requests enter the utility function as  $\pi_A^F(a', b'') = \pi_A(a', b'')$ ; for unreasonable requests, the expectations are filtered as  $\pi_A^F(a', b'') = \pi_A^n$ . In other words, reasonable requests are perceived by the trustee at their face value, while unreasonable ones are equated to his subjective natural level of trustworthiness ( $\pi_A^n$ ).

The "guilt factor" is formed by the "guilt sensitivity parameter" ( $G_B$ ) and the difference between A's payoff and B's second order "filtered" beliefs ( $\pi_A^F(a', b'')$ ).

The guilt factor enters into B's extended utility function of the form

$$U_B(a, b) = \pi_B(a, b) - [\pi_A(a, b) - \pi_A^F(a', b'')]G_B$$

The two key predictions of the static reasonableness model following from this analysis are:

**H1.** There is a positive relationship between requests and return rate. For a sufficiently high request, the relationship becomes weaker.

**H2.** Lower requests than the baseline priors reduce trustworthiness, but higher requests than the baseline priors do not increase it.

An increase in the requests will yield higher return rates via higher guilt up to the point that such requests are reasonable according to the individual priors, and is then ineffective.

Our analysis does not make the strength of the requests a function of whether the requests are communicated to player A and player B knows this. However, it may be that guilt is greater if this is the case, that is  $G_B$  is higher. We formalize this as a further hypothesis:

**H3.** The relationship between requests and return rate is stronger if player A is informed of the request and player B knows this.

### 2.3 Dynamic Reasonableness

As noted earlier, an upward spiral of requests may be considered less reasonable than if requests get lower. Intuitively, reasonableness may, at least in part, be evaluated in a reference-dependent manner, where previous experiences of requests may shape what is considered more or less reasonable.

Dependence on past requests can be modelled in different observationally equivalent ways. The simplest way is to let the perceived request at time  $t_0$  depends on the request received at time  $t_{-1}$ . In this sense  $\pi_A^F(a', b'')$  will be equal to  $\frac{1}{2}(\pi_A(a', b'')_{t_0} + \pi_A(a', b'')_{t_{-1}})$ , as long as requests are reasonable; otherwise, as in the case of static reasonableness  $\pi_A^F(a', b'') = \pi_A^n$ . That means that, when the order of the requests is increasing, the perceived expectation  $\pi_A^F(a', b'')$  will be lower than the expectation itself; symmetrically, when the order is decreasing it will be higher. Therefore, in the former case the signals will be less effective in eliciting compliance than in the case of signals sent in random order in the former and, a fortiori, with respect with signals sent in decreasing order.

The following hypothesis follows from the notion of dynamic reasonableness:

**H4.** Under increasing requests, the return rate will be lower than if requests are presented in decreasing or random order in successive rounds.

### 3. Experimental Design

A total of 120 subjects (mean age of 24 years, 43% male) participated in the experiment. Paper-and-pencil sessions took place at the BERG Lab of the University of Cagliari, Italy in May 2014. On average, the experimental subjects received €16.85 (including a €5 show-up fee) for an about 1 hour

experiment. Subjects were students enrolled at the University of Cagliari (Schools of Business and Law). The conversion rate between experimental points and Euro was 1 point = €0.25. The experimental instructions are in online appendix A.

Each experimental session was divided in two stages. In the first stage, each subject first played eight rounds of the trust game in the role of the trustor (player A). In the second stage, each subject played eight rounds of the trust game, corresponding to the ones played in the first stage, but this time in the role of the trustee (player B).<sup>3</sup> No feedback about actions or gains was provided before the end of the whole experimental session. In order to implement an incentive-compatible payment mechanism, at the end of each experimental session half of the subjects taking part in the experiment were randomly actually assigned to the role of player A and the other half to that of player B. Each A was then randomly matched with a B, one out of the eight games was randomly drawn, and the outcomes generated by the correspondent individual decisions were implemented and paid out in cash.

In our version of the trust game, A had a binary choice whether to send 50 points or 0 points to B (intermediate values were not allowed). If A transferred his or her 50 points to B, they were multiplied by 3 and became 150 points that B determined how to split between himself or herself and A. Excluding rounds 1 and 8, in which no requests are made, in each of the other rounds a request ranging between 0% and 100% of B's points (0, 30, 60, 90, 120 and 150 points) was made to B as the proportion of the money to be returned to A.<sup>4</sup> We employed the strategy method so as to be able to collect a full profile of responses (i.e., for each level of request) from B players in terms

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<sup>3</sup> We explain the reason for this specific sequence below.

<sup>4</sup> Player B: "In this scenario you are free to decide how many points to return to Player A, however if Player A has sent to you 50 points, we request you to return X% (Y points)". The full experimental instructions are contained in online appendix B.

of how much they would be willing to return conditionally on A having chosen to transfer his or her 50 points.<sup>5</sup>

We employed a between-subjects 2 x 3 factorial design (see Table 1) based on two different information settings (Communication vs. No Communication) and three different orders of the trust games and associated requests (Increasing, Decreasing and Random). We explain these next.

[Insert Table 1 about here.]

The first experimental manipulation is about whether or not A is aware of the experimenters' request to trustee B represents. In the *Communication* experimental condition (Com), player A is aware of the experimenters' request to player B, and B knows that this information is common knowledge.<sup>6</sup> Under the *No Communication* (NoCom) condition, A is not informed about the requests of the experimenters to B, and B is aware that A is not informed about these requests.<sup>7</sup> Because of the NoCom condition, we always had to have subjects play first as A in the first stage and then as B in the second stage; had they played first as B, players A would or could have naturally inferred that B had been made a request by the experimenters.<sup>8</sup> The rest of the structure of the game is common knowledge under both conditions.

The sequence in which the different requests are made in successive trust games constitutes the second experimental manipulation. In the *Increasing* (Inc) experimental condition, the sequence of the requests is organized following an increasing order from round 2 to round 7 (0, 30, 60, 90, 120,

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<sup>5</sup> See Charness and Brandts (2011) for a survey of the use of strategy method, based on which they conclude in no case do they find that a treatment effect from an experiment with the strategy method is not observed if the strategy method is not used.

<sup>6</sup> To the text in footnote 4, the following was added for players B: "Player A is aware of this request". Player A's corresponding instructions read: "Player B receives the following message: 'In this scenario you are free to decide how many points to return to player A, however if Player A has sent to you 50 points, we request you to return X% (Y points)'".

<sup>7</sup> To the text in footnote 4, the following was added for players B: "Player A is not aware of this request".

<sup>8</sup> A secondary reason for our stage sequence is that our interest in this experiment is all about player B's behavior. By playing in the role of player A first, we ensured greater understanding of the game being played when they had to choose as players B.

150 points in successive rounds). In the *Decreasing* (Dec) experimental condition, the sequence of requests follows a decreasing order from rounds 2 to 7 (150, 120, 90, 60, 30, 0 points in successive rounds). In the *Random* (Rand) experimental condition, the ordering of the requests is randomly determined between rounds 2 and 7. In all conditions, and as a control for any potential effect that just having a request (whatever that may be) may have, there are no requests in rounds 1 and 8. Based on the above abbreviations, we label the experimental treatments as NoCom Inc, Com Inc, NoCom Dec, Com Dec, NoCom Rand and Com Rand.

#### 4. Results

Define the trust rate as the percentage of players A that sent their 50 points to B and the mean return rate as the average points (out of 150 points) returned by players B to A. Round 1 return rates provide a baseline for the *a priori* reasonableness of requests. The mean round 1 return rate was 57.57 points, with some insignificant variations across treatments.<sup>9</sup>

[Insert Table 2 about here.]

Table 2 shows, in square brackets, mean return rates in the different treatments under the different levels of request; the corresponding trust rates are reported in standard brackets. While our focus in this paper is not on players A, it is worth noting that, in all three treatments with communication, the trust rate follows an inverted U shape with respect to the size of the requests. These are the treatments where players A know that the requests have been made and can therefore decide whether to send or not based on what they see as the expected reaction from players B to the requests. Table 2 shows that, in all three treatments, trust rates are in an upward trend as requests go

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<sup>9</sup> The individual return rate in round 1 is regressed against treatment dummies: no coefficient turns out to be statistically significant (see online Appendix B, Tables B1 and B2). All tests in this paper are two sided, even where one sided hypotheses are tested. Mean return rates in round 1 and 8 were identical (57.57 vs. 56.18, Signed Mann-Whitney  $p = 0.95$ ).

from 0 up to a peak between 60 and 120 points and then, in all three cases, go down, though markedly so (by as much as 25%) only in the Com Inc treatment. This suggests that, on average, players A believe that players B adapt their behavior to the requests, though the effects are seen to level out with a sufficiently high requests, and, when requests have been presented in an increasing order, in a way that is especially detrimental to the likelihood of players B returning money to players A. This pattern is suggestive of some taking into account of the static and dynamic reasonableness of the requests. It is not found in the treatments without communication.

[Insert Figure 1 about here.]

Figure 1 summarizes the Table 2 data in terms of the order sequence: under Dec and Rand, return rates increase with the request, albeit not on a one-to-one basis, and reach around 70 points when the request is for 150 points. The story is different under Inc: Figure 1 shows that mean return rates are always lower than under Dec and Rand (Mann-Whitney  $p=0.03$  and  $0.06$ , respectively).<sup>10</sup> This could be in part be explained by different priors, which will be controlled for in the regression analysis. Figure 1 compares round 1 baseline return rates with return rates when there are requests. It shows a clear asymmetry: decreasing requests tend to lower return rates more than requests higher than the prior baseline tend to increase them.

[Insert Table 3 about here.]

Table 3 reports a battery of Tobit regressions in order to assess the causal effect generated by the experimental manipulations on the amount of points returned by B to A.<sup>11</sup> The regressions include dummy variables for the experimental manipulations (Inc, Dec and Com, equal to 1 in the respective treatments, else 0), for the value of the request (Request\_30 for a request of 30 points,

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<sup>10</sup> In this and later across-subjects bivariate tests with multiple observations per subject, we use mean values by subject as the independent observation to avoid within-subject non-independence of observations.

<sup>11</sup> Since the outcome variable ranges in the truncated interval between 0 and 150, the adoption of Tobit models is a natural choice. Robust standard errors of the estimates (clustered at individual level since each subject plays repeatedly) are reported in brackets.

Request\_60 for one of 60 points, and so on) and, depending on the model, for round dummies (Round 8 = 1 for a round 8 decision, and so on).

Models 1-4 include observations from all rounds and, given the value of the request as well as round dummies, has as a baseline the prior reasonableness each subject reveals from their round 1 choices. As such, they are especially useful to test H2 (on the effect of requests relative to baseline priors). However, as there is no experimental manipulation in rounds 1 and 8, and indeed round 1 takes place before any experimental manipulation takes place, experimental treatment effects are likely to be noisy and diluted in these regressions. We therefore also estimate models 5-8, which include only observations from rounds 2-7 where the experimental manipulations took place, and which more accurately test for the effects of our experimental manipulations and therefore for H3 (on the effect of knowledge of player A being informed of the request) and H4 (on the effect of requests order). The baseline for these regressions is the case where the request is 150. While the baselines are different, we can use both sets of models to look at H1 (on the relationship between requests and return rate).

The regressions also include a Rand\*Com interaction term to exploit the factorial nature of the treatment manipulations. Further regressions including Inc\*Com and Dec\*Com can be found in online appendix B, and do not change any of the results below. Depending on the regression model, we also include demographic variables referring to age and gender, religion and economics background, or neither. Online appendix B contains further regressions that remove the request order (Inc and Dec) dummies. Again, our results are robust. Round and demographic coefficients are never statistically significant and do not affect the other coefficients.

**H1 is supported. There is evidence of a positive relationship between requests and return rate, but this tends to disappear for a sufficiently high request.**

Visual inspection of Figure 1 and Table 2 suggests the existence of a positive aggregate

relationship between request levels and return rates of player B. The regression analysis of Table 3 supports this. It shows that the point coefficients are consistently increasing in the size of the request up to a request of 120, though with strong effects particularly evident for low request values and coefficients for requests of 90 and above not statistically different from the baseline prior return rates (for models 1-4) or a request of 150 (for models 5-8). Focusing on the most encompassing models 4 and 8, the coefficients on Request\_0 are statistically lower than those on Request\_60 and higher request values (Wald  $p < 0.05$  or better);<sup>12</sup> those on Request\_30 are statistically lower than those on Request\_90 and higher request values (Wald  $p < 0.05$  or better). Conversely, the coefficients on Request\_90 are not different from the ones on Request\_150 in regressions 1-4 (Wald  $p > 0.1$ ); and we have the same picture from the lack of significance of Request\_90 in models 5-8, as this denotes the lack of significant difference relative to a request of 150 that constitutes the baseline for these regression models.

**H2 is supported. Return rates are lower than the baseline priors when requests are lower than the baseline priors, but the converse is not true: requests higher than the baseline priors do not push return rates up.**

While Figure 1 shows preliminary evidence for this, models 1-4 enable us to test this and corroborate this result. Relative to baseline priors, requests of 0, 30 and 60 significantly decrease the return rate, by around 20-21, 13-15 and 10-11 points respectively. High requests instead do not lead to statistically significant increases, with positive point values no larger than 2.5 points for requests of 120 and 150.<sup>13</sup>

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<sup>12</sup> Here and below, we focus on tests of requests that differ by 60 points or more, as we do not have the statistical power to detect differences for requests that differ by only 30 points.

<sup>13</sup> Online appendix C provides some additional analysis based on baseline priors. It shows that the evidence for H1 and H2 is likely to be at least partially driven by trustees with an intermediate level of trustworthiness in round 1, i.e. a baseline return rate of 50 (33.3% of the amount received) or 75 (50% of the amount received).

**H3 is not supported. The relationship between requests and return rate is not stronger if player A is informed of the request and player B knows this.**

Table 2 does not show much difference in terms of effect of communication on the return rate: the average is 56.45 in the No Com treatments versus 48.01 in the Com treatments (Mann Whitney  $p=0.17$ ). The regressions reported in Table 3 also confirm this pattern: the Com dummy is never significant at conventional test levels, even in models 5-8 that should be especially suited to detect such effects.

**H4 is broadly supported. Under increasing requests, the return rate tends to be lower than if requests are presented in random or decreasing order in successive games.**

Visual inspection of Figure 1 and Table 2 suggests that the increasing order of requests on return rates reduces return rates. This receive support by the regression analysis of Table 3. It shows that coefficients on INC are always negative and statistically significant at the  $p < 0.05$  level, once we focus on models 5-8 that are suited to test H4 so as to exclude rounds 1 and 8 which have no requests. The effects appear economically meaningful in their magnitudes, with values of 28-29 points in models 5-8. The coefficients on DEC are not statistically significant and, in the relevant models 5-8, are consistently lower at the  $p < 0.1$  level than those on INC.<sup>14</sup>

## 5. Discussion

We found a positive relationship between requests and return, but one largely relying on low requests becoming lower than the baseline priors in terms of reasonable return rates, as opposed to high requests leading to higher trustworthiness. Such requests are not more effective when the trustee knows that the trustor is informed about the requests. They are however less effective when presented in increasing order, compared with random or decreasing order.

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<sup>14</sup> Wald  $p = 0.068$  in models 5 and 6 and  $0.088$  in models 7 and 8.

In order to evaluate the static and dynamic reasonableness of the requests, we had to vary systematically such requests, and this explains why an exogenous manipulation through such requests coming from the experimenter was such a useful tool in our context.<sup>15</sup> Results 1 and 2 shows that static reasonableness matters in a self-biased way: they are consistent with an experimental social norm being adjusted by the request, but only in a self-biased direction. Consistently with Ellingsen et al. (2010), the relationship is not strengthened by the trustee knowing that the trustor knows about the request. We cannot rule out some underlying response heterogeneity (Khalmetski et al., 2015), and it plausible that the experimenter request is sufficient to induce the norm and any guilt effect, without any further effect from trustor knowledge of it.<sup>16</sup>

There is a significant literature showing how moral wiggle room is exploited in self-serving ways (e.g., Dana et al., 2007; Grossman, 2014; Regner and Matthey, 2015) and that fairness is perceived in self-biased ways (e.g., Babcock and Loewenstein, 1997; Konow, 2005; Valdesolo and DeSteno, 2008; Xiao and Bicchieri, 2010), and our findings are consistent with this research. In a sender-receiver game, Khalmetski (2016) find that, when the incentives to lying are high, the trustees (the senders) tend not to take into account the trustors' (receivers) high expectations. Naef and Sontuoso (2015) consider moral wiggle room in the context of trust games and find evidence that conformist participants are so in a self-serving way. Regner and Matthey (2015) contain a good recent discussion of the moral wiggle room literature and, also in the context of trust games, find that 40% of reciprocators in their experiment exploited moral wiggle room.

Our experiment employs the experimental methodology of Cadsby et al. (2006), Silverman et al. (2014), Karakostas and Zizzo (2016) and Sonntag and Zizzo (2015) of using experimenter demand

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<sup>15</sup> For an example of use of cheap talk communication *between* trustor and trustee, see Charness and Dufwenberg (2006).

<sup>16</sup> We also cannot rule out that the trustees did not believe that the trustors' expectations would be affected by the requests.

as a tool to define the norm by which behavior is expected in the experiment.<sup>17</sup> Such requests are effective in inducing greater compliance in a tax payment game (Cadsby et al., 2006), in line with previous work showing that a ‘tax frame’ induces greater tax payment than a neutral gamble frame of a tax decision (Alm et al., 1992); in a public good game, in terms of inducing greater contribution (Silverman et al., 2014; Sally, 1995); in an obedience game, where subjects are asked to destroy money of others (Karakostas et al., 2016); and in a Cournot oligopoly setting, where greater collusion is induced (Sonntag and Zizzo, 2015). A non-experimental example of the tendency to defer to authority is Harrington (1988), who provides evidence that firms tend to comply to environmental regulation to a much greater extent than theoretically predicted, that is, even when monitoring is rare, punishment of the transgressors is unlikely and fines negligible.

When trustors were aware of the requests, their average requests followed a U curve pattern, suggesting that they also took into account the reasonableness of the requests in deciding whether or not to send their 50 points.

Result 4 shows that dynamic reasonableness matters. A “foot in the door” approach (Cialdini and Goldstein, 2004) of starting with a low request and then go higher can be problematic since the recipients of the requests can consider the ratcheting up of requests unreasonable and therefore discount these requests. This is again consistent with a self-biased perception of reasonableness. Once initially shifted downward by the initial very low requests and once a clear ratcheting up pattern is identified, reasonableness perceptions are hard to shift to the levels that we observe with a random order or a decreasing order in terms of return rates.

We did not elicit second order beliefs of the trustee in this experiment; because of the use of the strategy method in correspondence of different levels of the requests, it would have been cumbersome to do and possibly distorting of trustee behavior; nevertheless, this could be an

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<sup>17</sup> See Zizzo (2010) for a methodological discussion of deliberately using experimenter demand as an experimental tool.

interesting avenue for future research. Equally, it would be interesting to tie this research with that on cheap talk between trustor and trustee in trust games as illustrated by Charness and Dufwenberg (2006).

There is a pessimistic message to our paper, in that overall requests do not help but may harm. Given the managerial importance of requests, it is important to identify the determinants of reasonableness and under what circumstances requests can be used to elicit greater trustworthiness.<sup>18</sup> For example, the natural language phrasing of the requests – e.g. whether they are framed more or less politely – and the extent to which persuasive arguments are made to justify the requests could matter.

## **6. Conclusion**

There are two key messages from this paper. First, when requests are received, their reasonableness is taken into account in determining how to respond to them, but in a self-biased way. We have tested this intuition in the context of trust games where we found that both static and dynamic reasonableness of the requests matter when trustees decide how much to return back to trustors. Static reasonableness refers to the level of the requests: when the request is too high, it does not generate additional return back to the trustors. Dynamic reasonableness refers to the order of successive requests: if requests keep ratcheting up, trustees return less than if requests of different size are presented in a random or decreasing order.

The second message is that, in our trust game setting, requests never systematically increase return rates, but may decrease them. We interpret this in terms of moral wiggle room, and, given the importance of requests as a managerial tool for organizations, further research should identify ways of mitigating such a detrimental effect and of making requests more effective.

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<sup>18</sup> Using data from trust game variants, Cardella (2016) has recently argued that guilt induction could be used as a tool by trustors.

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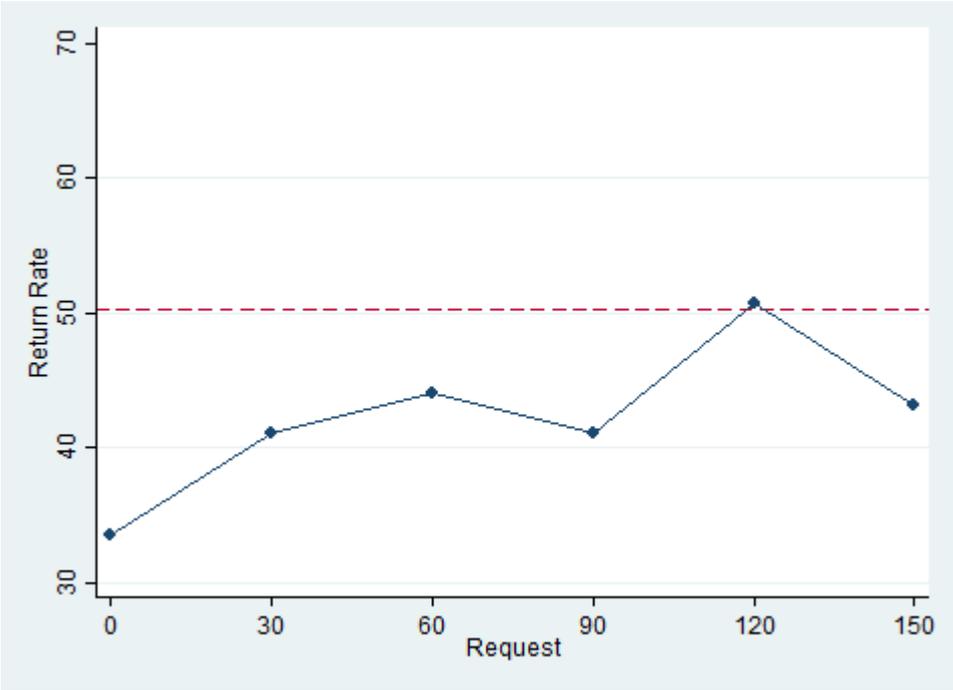
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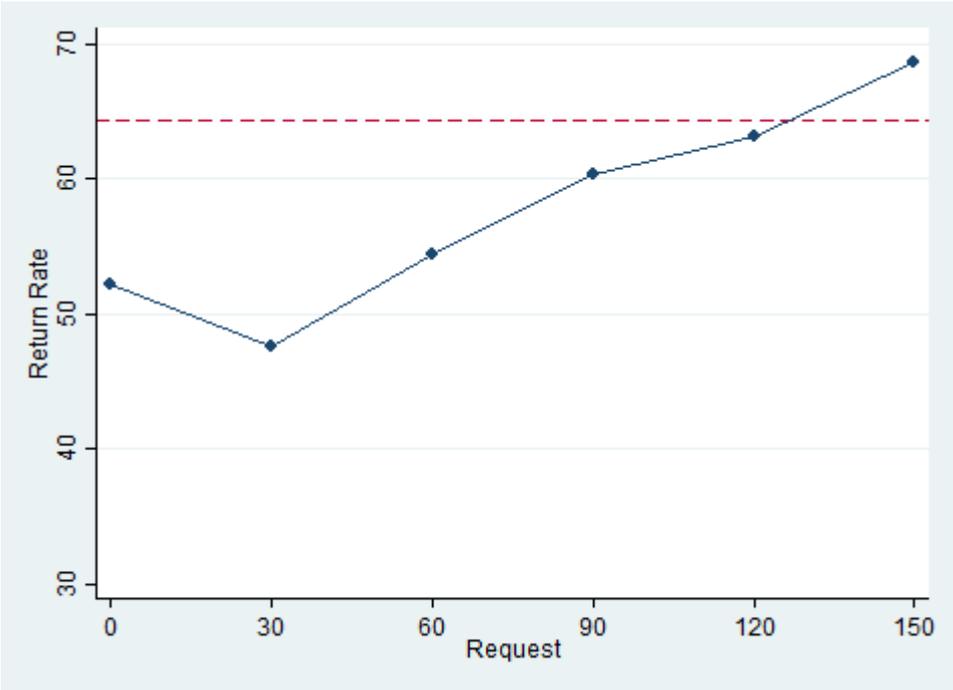
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**Figure 1: Mean return rate by Increasing / Decreasing / Random order**

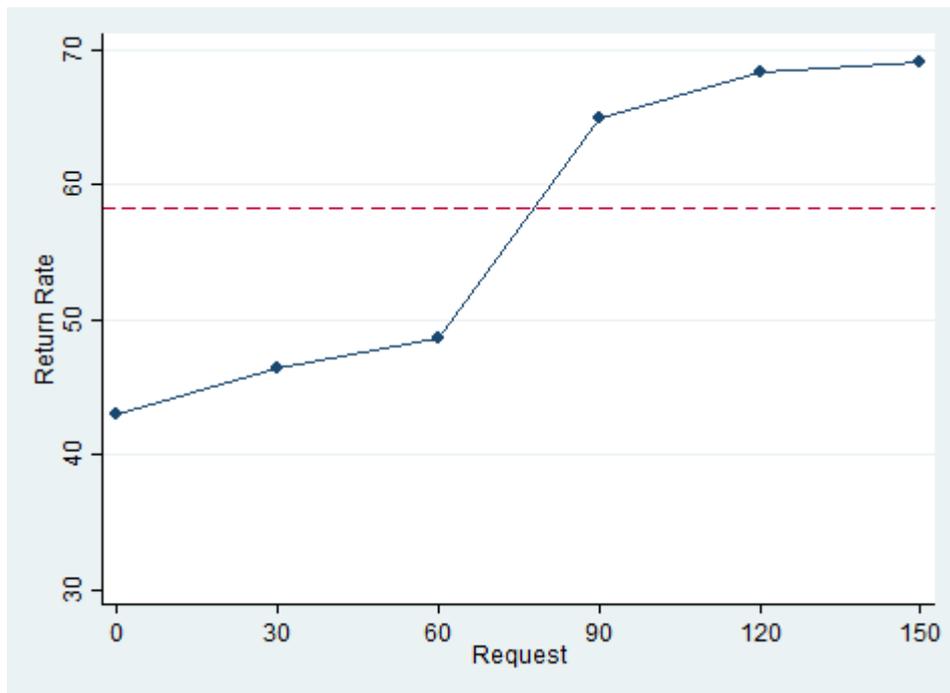
Panel A: Increasing Order



Panel B: Decreasing Order



Panel C: Random Order



*Notes:* This figure contains the return rate for each request level in the Inc (panel A), Dec (panel B) and Rand (panel C) treatments. The horizontal dotted red line indicates the corresponding round 1 baseline return rate.

**Table 1: Factorial design, number of subjects by treatments**

	NoCom	Com	(total)
INcreasing	20	20	40
DEcreasing	20	20	40
RANdom	20	20	40
(total)	60	60	120

**Table 2: Descriptives**

	<b>No Com Inc</b>	<b>Com Inc</b>	<b>No Com Dec</b>	<b>Com Dec</b>	<b>No Com Rand</b>	<b>Com Rand</b>
<b>Round 1- baseline</b>						
<b>(no request)</b>	<b>[50.5]</b>	<b>[50.5]</b>	<b>[63.5]</b>	<b>[65]</b>	<b>[63]</b>	<b>[53.35]</b>
	<b>(45%)</b>	<b>(45%)</b>	<b>(65%)</b>	<b>(65%)</b>	<b>(60%)</b>	<b>(45%)</b>
Request 0%						
(0 pts)	[31.75]	[35.3]	[56.5]	[47.75]	[56.85]	[29.25]
	(50%)	(20%)	(65%)	(30%)	(60%)	(20%)
Request 20%						
(30 pts)	[42.5]	[39.75]	[54]	[41.25]	[60.4]	[32.5]
	(50%)	(40%)	(60%)	(45%)	(55%)	(35%)
Request 40%						
(60 pts)	[40]	[48]	[56]	[52.65]	[51.55]	[45.75]
	(25%)	(70%)	(60%)	(50%)	(55%)	(60%)
Request 60%						
(90 pts)	[42.5]	[39.75]	[71.75]	[48.85]	[71.8]	[58.1]
	(60%)	(60%)	(45%)	(70%)	(70%)	(60%)
Request 80%						
(120 pts)	[48.75]	[52.5]	[67.25]	[59]	[77.05]	[59.5]
	(40%)	(60%)	(50%)	(60%)	(60%)	(75%)
Request 100%						
(150 pts)	[46.5]	[39.75]	[70]	[67.25]	[70.95]	[67.25]
	(35%)	(35%)	(55%)	(55%)	(55%)	(65%)
<b>Round 8</b>						
<b>(no request)</b>	<b>[43]</b>	<b>[59.25]</b>	<b>[63]</b>	<b>[55]</b>	<b>[64.8]</b>	<b>[52]</b>
	<b>(50%)</b>	<b>(40%)</b>	<b>(55%)</b>	<b>(80%)</b>	<b>(50%)</b>	<b>(45%)</b>

*Notes:* In square brackets: Mean trustees' (players B) return rates in points (out of 150 points), by request/treatment. In standard brackets: Trust rate, that is percentage of players A sending 50 points.

**Table 3: Tobit regressions on return rates**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
INC	-25.901* (13.838)	-25.892* (13.828)	-26.705* (14.229)	-26.693* (14.219)	-28.383** (13.808)	-28.370** (13.795)	-28.922** (14.124)	-28.905** (14.111)
DEC	-8.136 (14.013)	-8.139 (14.010)	-10.241 (14.802)	-10,238 (14.798)	-8.909 (14.047)	-8.911 (14.043)	-10.395 (14.742)	-10.390 (14.738)
COM	-2.860 (10,406)	-2.877 (10.402)	-1.874 (10.406)	-1.893 (10.402)	-5.405 (10.721)	-5.427 (10.718)	-4.566 (10.687)	-4.591 (10.683)
RAN*COM	-18.359 (18.222)	-18.376 (18.217)	-20.896 (19.671)	-20,904 (19.665)	-18.885 (18.830)	-18.906 (18.827)	-20.965 (20.117)	-20.974 (20.113)
Request_0	-20.654*** (4.241)	-21.479*** (5.290)	-20.657*** (4.252)	-21.492*** (5.304)	-23.373*** (5.904)	-23.233*** (5.868)	-23.360*** (5.913)	-23.222*** (5.877)
Request_30	-15.196*** (4.568)	-13.876** (5.699)	-15.163*** (4.573)	-13.873** (5.712)	-17.764*** (5.577)	-15.441** (5.996)	-17.739*** (5.593)	-15.432** (6.023)
Request_60	-9.956*** (3.286)	-11.203* (6.446)	-9.934*** (3.292)	-11.192* (6.453)	-12.445** (5.032)	-12.736** (6.445)	-12.421** (5.035)	-12.709** (6.451)
Request_90	-3.279 (4.329)	-4.740 (5.930)	-3.248 (4.328)	-4,722 (5.937)	-5.787 (4.935)	-6.298 (5.647)	-5.758 (4.936)	-6.266 (5.650)
Request_120	1.943 (4.365)	2.591 (-5.183)	1.969 (4.377)	2.585 (5.200)	-0.569 (4.454)	1.070 (4.870)	-0.536 (4.458)	1.086 (4.879)
Request_150	2.476 (5.039)	1.159 (5.476)	2.468 (5.047)	1.505 (5.759)				
Constant	67.801*** (10.821)	67.820*** (10.816)	68.387*** (15.355)	68.391*** (15.348)	72.434*** (10.728)	71.515*** (10.732)	73.628*** (15.652)	72.684*** (15.862)
Other round dummies	NO	YES	NO	YES	NO	YES	NO	YES
Demographics	NO	NO	YES	YES	NO	NO	YES	YES
Observations	960	960	960	960	720	720	720	720
Pseudo R <sup>2</sup>	0.00619	0.00645	0.00655	0.00682	0.00733	0.00767	0.00756	0.00790

*Notes:* Models 1-4 include observations from all rounds; models 5-8 include only observations from rounds 2-7. Robust standard errors clustered at individual level are reported in brackets. Three stars, two stars and one star refer to significant effects at the 1%, 5% and 10% level respectively.

..... **Online Appendices** .....

**A. Instructions**

Welcome and thanks for your participation. During the experiment you are asked to make decisions in different situations. In all these situations you will be matched to another subject. This random matching will be determined at the end of the session. Your decisions and the decisions of the matched subject will jointly determine the final payments. The whole interaction will be conducted in total anonymity. At the end of the experiment only one decision situation will be randomly drawn and implemented for the payment.

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PLAYER A: role

In the following situations you are Player A. You are matched with one Player B. You have an endowment of 50 points. Player B also has an endowment of 50 points. You have two options:

- Keep your 50 points.
- Send the 50 points to Player B. In this case the points are multiplied by a factor of 3. Player B receives 150 points in addition to his endowments of 50 points. Then Player B can freely decide to send you back any (discrete) amount of points between 0 and 150.

PLAYER A: action (8 rounds)

In this scenario you are Player A and you are matched with one Player B. You have an endowment of 50 points. Also Player B has an endowment of 50 points. You have two options:

- Keep your 50 points.
- Send the 50 points to Player B. In this case the points are multiplied by a factor of 3. Player B receives 150 points in addition to his endowment of 50 points. Then Player B can freely decide to send you back any (discrete) amount of points between 0 and 150.

NoCom: [no message]

Com-Increasing:

Player B receives the following message. "In this scenario you are free to decide how many points to return to player A, however if Player A has sent to you 50 points, we request you to return (--)[0%; 0p:][20%; 30p:][40%; 60p:][60%; 90p:][80%; 120p:][100%; 150p:](--)".

Com-Decreasing:

Player B receives the following message. "In this scenario you are free to decide how many points to return to player A, however if Player A has sent to you 50 points, we request you to return (--)[100%; 150p:][80%; 120p:][60%; 90p:][40%; 60p:][20%; 30p:][0%; 0p:](--)".

Com-Random:

Player B receives the following message. "In this scenario you are free to decide how many points to return to player A, however if Player A has sent to you 50 points, we request you to return (--)[60%; 90p:][80%; 120p:][0%; 0p:][100%; 150p:][20%; 30p:][40%; 60p:](--)".

I send 0 points to Player B.

I send 50 points to Player B.

---

PLAYER B: role

In the following situations you are Player B. You are matched with one Player A. You have an endowment of 50 points. Player A also has an endowment of 50 points. Player A faced a binary decision. Either send to you 0 points or send to you 50 points.

If Player A sends 50 points, they are multiplied by a factor of 3. You receive 150 points in addition to your endowment of 50 points. Then you can freely decide to send back to Player A any (discrete) amount of points between 0 and 150.

PLAYER B: action (8 rounds)

In this scenario you are Player B and you are matched with one Player A. You have an endowment of 50 points. Player A also has an endowment of 50 points. Player A can freely decide to send you 0 points or 50 points.

NoCom-Increasing:

In this scenario you are free to decide how many points to return to Player A. However, if Player A has sent to you 50 points, we request you to return(--)[0%; 0p:][20%; 30p:][40%; 60p:][60%; 90p:][80%; 120p:][100%; 150p:](--) Player A is not aware of this request.

Com-Increasing:

In this scenario you are free to decide how many points to return to Player A, however if Player A has sent to you 50 points, we request you to return (--)[0%; 0p:][20%; 30p:][40%; 60p:][60%; 90p:][80%; 120p:][100%; 150p:](--) Player A is aware of this request.

NoCom-Decreasing:

In this scenario you are free to decide how many points to return to Player A, however if Player A has sent to you 50 points, we request you to return (--)[100%; 150p:][80%; 120p:][60%; 90p:][40%; 60p:][20%; 30p:][0%; 0p:](--) Player A is not aware of this request.

Com-Decreasing:

In this scenario you are free to decide how many points to return to Player A, however if Player A has sent to you 50 points, we request you to return (--)[100%; 150p:][80%; 120p:][60%; 90p:][40%; 60p:][20%; 30p:][0%; 0p:](--) Player A is aware of this request.

NoCom-Random:

In this scenario you are free to decide how many points to return to Player A, however if Player A has sent to you 50 points, we request you to return (--)[60%; 90p:][80%; 120p:][0%; 0p:][100%; 150p:][20%; 30p:][40%; 60p:](--) Player A is not aware of this request.

Com-Random:

In this scenario you are free to decide how many points to return to Player A, however if Player A has sent to you 50 points, we request you to return (--)[60%; 90p:][80%; 120p:][0%; 0p:][100%; 150p:][20%; 30p:][40%; 60p:](--) Player A is aware of this request.

I send \_\_\_ # \_\_\_ points to Player A.

**B. Additional Regression Analysis**

**Table B1 - Tobit regression on return rate in round 1, controlling for treatment combinations**

VARIABLES	Return Rate in round #1
NoCom Inc	-15.11 (15.80)
Com Inc	-14.68 (15.82)
NoCom Dec	-0.22 (15.73)
Com Dec	1.33 (15.73)
Com Rand	-8.52 (16.97)
Constant [NoCom Rand]	58.99*** (11.19)
Observations	120
Pseudo R <sup>2</sup>	0.0022

Standard errors in parentheses.  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1  
 Baseline treatment: NoCom Rand

**Table B2 - Tobit regression on return rate in round 1, main effects only**

VARIABLES	Return Rate in round #1
DEC	4.857 (11.289)
INC	-10.610 (11.635)
COM	-2.171 (9.157)
Constant	55.773*** (10.421)
Observations	120
Pseudo R <sup>2</sup>	0.00200

Standard errors in parentheses.

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

**Table B3 - Tobit regressions on return rate (based on rounds 1-8 data)**

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Return Rate	model							
INC					-29.116*	-29.102*	-31.730*	-31.707*
					(14.939)	(14.927)	(16.199)	(16.186)
DEC					-5.016	-5.030	-6.812	-6.822
					(15.114)	(15.112)	(15.344)	(15.341)
COM	-9.156	-9.177	-9.025	-9.046	-21.202	-21.240	-23.915	-23.944
	(8.685)	(8.682)	(8.913)	(8.910)	(14.892)	(14.890)	(16.586)	(16.582)
COM_DEC					12.107	12.146	13.552	13.586
					(20.809)	(20.808)	(20.999)	(20.997)
COM_INC					24.784	24.791	31.429	31.416
					(21.078)	(21.070)	(24.920)	(24.909)
Request_0	-19.498***	-21.346***	-19.508***	-21.356***	-19.631***	-21.466***	-19.621***	-21.470***
	(3.864)	(5.331)	(3.879)	(5.347)	(3.871)	(5.291)	(3.886)	(5.313)
Request_30	-14.204***	-13.823**	-14.148***	-13.795**	-14.185***	-13.876**	-14.150***	-13.888**
	(4.090)	(5.720)	(4.082)	(5.729)	(4.079)	(5.697)	(4.074)	(5.712)
Request_60	-8.900***	-11.140*	-8.873***	-11.118*	-8.959***	-11.215*	-8.941***	-11.215*
	(2.720)	(6.447)	(2.713)	(6.450)	(2.736)	(6.444)	(2.733)	(6.455)
Request_90	-2.210	-4.627	-2.186	-4.611	-2.256	-4.727	-2.210	-4.699
	(3.785)	(5.951)	(3.787)	(5.960)	(3.794)	(5.924)	(3.792)	(5.932)
Request_120	2.964	2.687	2.990	2.682	2.946	2.586	2.972	2.566
	(4.070)	(5.211)	(4.074)	(5.226)	(4.054)	(5.179)	(4.060)	(5.199)
Request_150	3.596	1.628	3.584	1.616	3.481	1.515	3.470	1.492
	(4.769)	(5.732)	(4.775)	(5.747)	(4.757)	(5.740)	(4.762)	(5.754)
Round dummies	NO	YES	NO	YES	NO	YES	NO	YES
Demographics	NO	NO	YES	YES	NO	NO	YES	YES
Constant	55.477***	56.465***	54.063***	55.036***	66.794***	67.829***	68.885***	69.908***
	(6.860)	(7.001)	(11.097)	(11.298)	(10.634)	(10.810)	(15.568)	(15.779)

Observations	960	960	960	960	960	960	960	960
Pseudo R <sup>2</sup>	0.00300	0.00327	0.00343	0.00370	0.00643	0.00670	0.00699	0.00727

*Notes:* These regressions present variants on models 1-4 of Table 3 in the paper. Robust standard errors clustered at individual level are reported in brackets. Three stars, two stars and one star for significant effects at the 1%, 5% and 10% level respectively.

**Table B4 - Tobit regressions on return rate (based on rounds 2-7 data)**

Outcome: Return Rate	(1) model	(2) model	(3) model	(4) model	(5) model	(6) model	(7) model	(8) model
INC					-31.419** (14.905)	-31.392** (14.887)	-33.493** (16.003)	-33.453** (15.983)
DEC					-5.976 (15.209)	-5.990 (15.206)	-7.284 (15.378)	-7.293 (15.375)
COM	-11.956 (8.980)	-11.982 (8.978)	-11.846 (9.231)	-11.872 (9.228)	-24.276 (15.418)	-24.318 (15.418)	-26.568 (17.026)	-26.597 (17.023)
COM_DEC					13.003 (21.483)	13.049 (21.484)	14.295 (21.623)	14.333 (21.623)
COM_INC					24.967 (21.782)	24.961 (21.772)	30.563 (25.288)	30.526 (25.275)
Request_0	-23.345*** (5.918)	-23.218*** (5.888)	-23.331*** (5.926)	-23.204*** (5.897)	-23.355*** (5.909)	-23.216*** (5.873)	-23.327*** (5.923)	-23.190*** (5.888)
Request_30	-17.913*** (5.599)	-15.497** (6.020)	-17.858*** (5.611)	-15.465** (6.047)	-17.759*** (5.577)	-15.437** (5.994)	-17.729*** (5.593)	-15.436** (6.022)
Request_60	-12.523** (5.042)	-12.780** (6.476)	-12.487** (5.045)	-12.743** (6.479)	-12.454** (5.028)	-12.745** (6.441)	-12.430** (5.031)	-12.720** (6.449)
Request_90	-5.843 (4.919)	-6.281 (5.662)	-5.813 (4.921)	-6.252 (5.664)	-5.771 (4.937)	-6.282 (5.647)	-5.725 (4.939)	-6.235 (5.653)
Request_120	-0.680 (4.461)	1.068 (4.885)	-0.641 (4.464)	1.081 (4.891)	-0.571 (4.452)	1.070 (4.868)	-0.535 (4.458)	1.079 (4.878)
Round dummies	NO	YES	NO	YES	NO	YES	NO	YES
Demographics	NO	NO	YES	YES	NO	NO	YES	YES
Constant	60.185*** (7.884)	61.173*** (8.282)	59.744*** (12.376)	60.706*** (12.332)	72.433*** (10.723)	73.313*** (11.079)	75.003*** (16.037)	75.855*** (16.058)
Observations	720	720	720	720	720	720	720	720

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Pseudo R-squared	0.00373	0.00407	0.00403	0.00437	0.00754	0.00788	0.00791	0.00825
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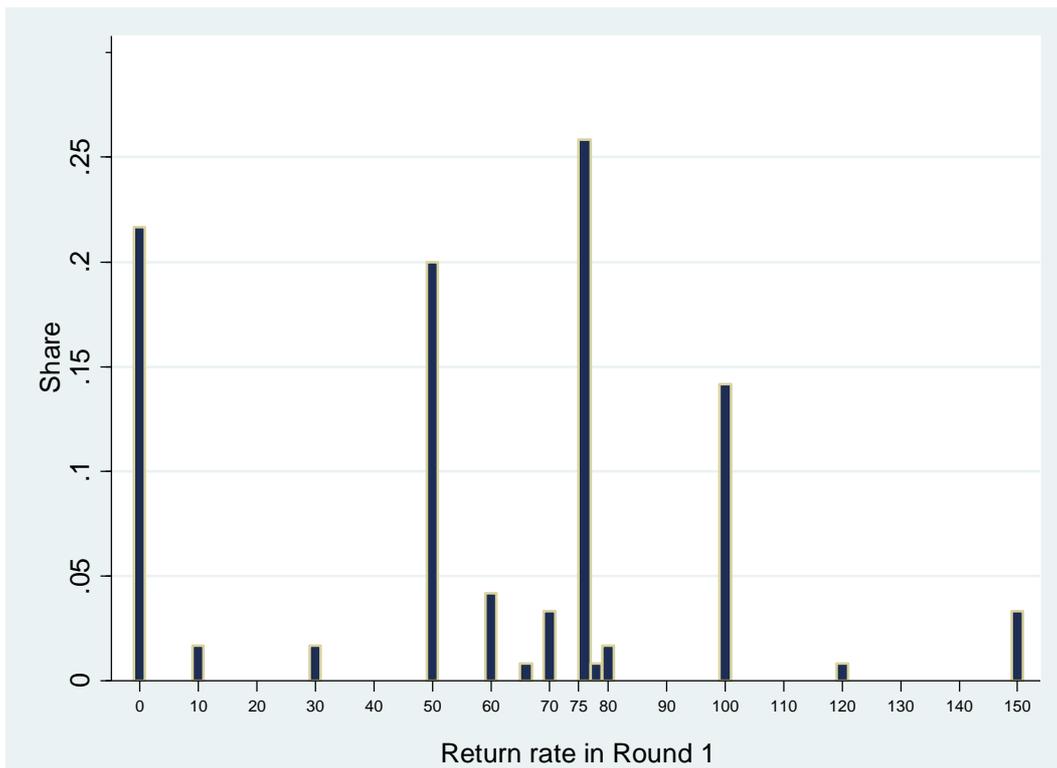
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*Notes:* These regressions present variants on models 5-8 of Table 3 in the paper. Robust standard errors clustered at individual level are reported in brackets. Three stars, two stars and one star for significant effects at the 1%, 5% and 10% level respectively.

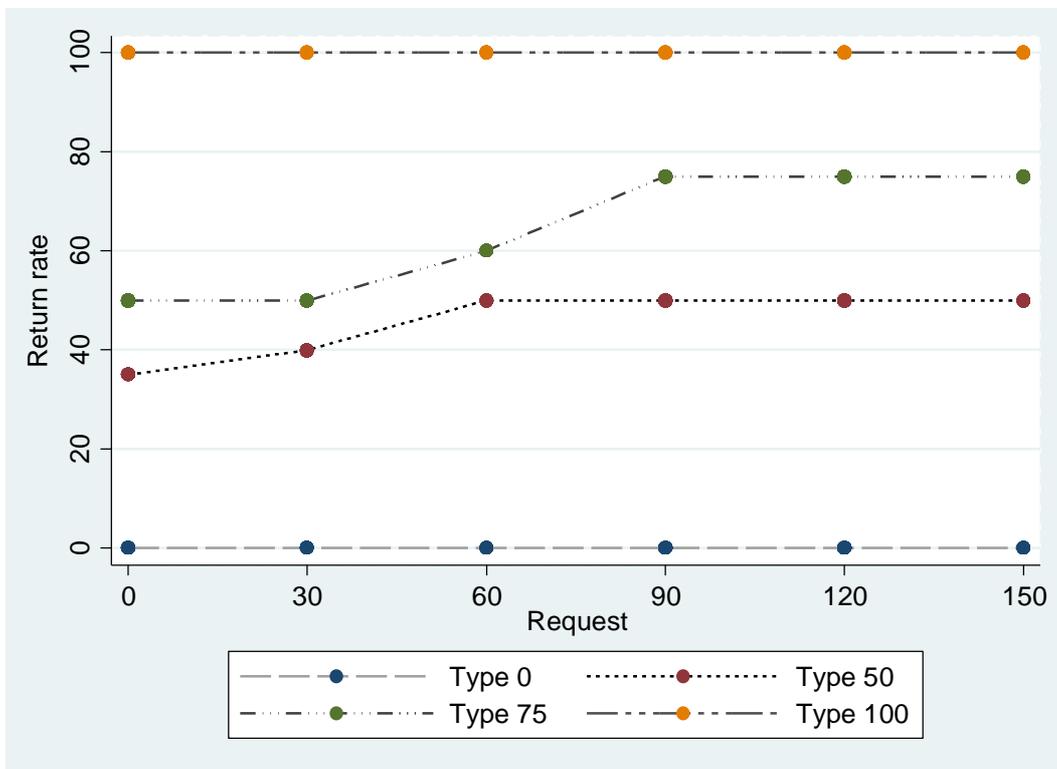
### C. Analysis by Baseline Prior Type

The return rates in round 1 constitute our measure of baseline priors that subjects have. Figure C1 contains a histogram of return rates in round 1. Four main focal levels can be defined looking at the return rates distribution: 0 (21%), 50 (20%), 75 (26%), 100 (14%). About 80% of trustees can therefore be classified as one of these four types. We do not have the statistical power to look at the behavior of these different types by treatment. Figure C2 however at least provides a sense of the median behavior of these different types in rounds 2-8 conditional on the requests received.

**Figure C1 – Histogram of Return Rates in Round 1.**



**Figure C2 – Median Return Rates by Baseline Prior Type.**



The median behavior of the 14% of subjects who always returned a median value of 100 regardless of the request value is not consistent with our model. 100 points ensure perfect equality in outcomes (100 points each) between trusters and trustees and so these may be inequality averse or altruistic subjects, whose choices are not conditional on requests.

The median behavior of the 21% of subjects who always returned a median value of 0 regardless of the request value is consistent with our model for a reasonable baseline prior of 0%. It is obviously likely to reflect mainly self-interested subjects.

The median behavior of the 46% of subjects with intermediate baseline reasonableness priors of 50 and 75 is consistent with our model and is likely to at least partially drive our aggregate support for hypotheses H1 and H2, as summarized in Results 1 and 2.