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To segregate, or to discriminate – that is the question: experiment on identity and social preferences

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To segregate, or to discriminate – that is the question: experiment on identity and social preferences^{*}

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How do various sources of social identity affect segregation and discrimination decisions? In our laboratory experiment, social identity originates either from similar preferences, income, ability, randomly or from shared socioeconomic status. For the latter, we exploit Colombia's unique (public information) stratification system which assigns households to socioeconomic strata based on its residential block amenities. Subjects decide with whom to interact in a Dictator and Trust Game. We find high socioeconomic status senders segregate against out-group receivers in the Dictator Game, while low socioeconomic ones do so in the Trust Game. This segregation pattern is partly explained by payoff-maximizing behavior. In the Trust Game, we gather evidence for statistical discrimination. In the Dictator Game, evidence points to a taste for redistribution when identity originates from socioeconomic status or income level. No matter the source of identity, our subjects expect being segregated but not discriminated against. JEL codes: C91, D91, J15, Z13

Keywords: Socioeconomic status, stratification, segregation, dis-

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Segregar o discriminar – esa es la cuestión: Un experimento sobre identidad y preferencias sociales*

By Mariana Blanco, José-Alberto Guerra

¿Cómo afectan las distintas fuentes de identidad social las decisiones de segregación y discriminación? En nuestro experimento de laboratorio. la identidad social se origina ya sea a partir de preferencias, ingresos, o habilidades similares, del azar o de un estatus socioeconómico compartido. Para esto último, explotamos el sistema de estratificación de Colombia (que es información pública) que asigna hogares a estratos socioeconómicos en función de los recursos de sus cuadras residenciales. Los sujetos deciden con quién interactuar en el juego del dictador y de confianza. Encontramos que los remitentes de alto nivel socioeconómico segregan a los receptores que no pertenecen a su mismo grupo en el juego del dictador, mientras que los remitentes de bajo nivel socioeconómico lo hacen en el juego de la confianza. Este patrón de segregación se explica en parte por un comportamiento maximizador de beneficios. En el juego de la confianza, encontramos evidencia a favor de discriminación estadística. En el juego del dictador, la evidencia apunta a un queto por la redistribución cuando la identidad se origina en el estatus socioeconómico o en el nivel de ingresos. No importa la fuente de identidad, nuestros sujetos esperan ser segregados pero no discriminados.

Clasificación JEL: C91, D91, J15, Z13

Palabras Clave: Estatus socioeconómico, estratificación, segregación, discriminación, experimento de laboratorio.

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I. Introduction

In many cities across the world, different social groups (p.eg. based on *non-economic* characteristics such as race, religion, or any other type of social identity) reside in different locations with no, or little, interaction between them. This might be the outcome of self-selection based on public amenities or housing prices, but it could also be the result of an active desire to form homogeneous units concerning *non-economic* characteristics (i.e. segregation, Schelling 1969). It is also common to observe that once heterogeneous groups are formed, individuals otherwise identical receive a differential treatment systematically correlated with these *non-economic* characteristics (i.e. discrimination, Becker 1957).

This dissimilar treatment among individuals belonging to different social groups may lead to coordination failures (Miguel and Gugerty 2005), lack of public participation (Alesina and La Ferrara 2000), and other inefficiencies that are ultimately associated to poverty, violence (Montalvo and Reynal-Querol 2005) and productivity meltdown (Benabou 1993). Such challenges seem more acute in Latin American cities, where socioeconomic polarization is widely spread despite low levels of ethnic or cultural fractionalization (Fearon 2003).

In this paper, we answer the question of whether people choose to segregate or discriminate based on socioeconomic status (SES) differences. To do this, we take advantage of one unique feature of Colombia. In Colombian cities, households are classified into 6 strata. Such stratification policy was made into law in 1994 (Law 142 of 1994, Chapter IV) to grant cross-subsidies from rich households to its poorest residents: People living in upper layers (strata 4, 5, and 6) pay higher electricity, water and sewage rates to subsidize lower strata consumption. This methodology was defined at the nationwide level, making it compulsory for urban local authorities to classify each residential block of their city into one of these 6 groups. The stratum is assigned to each block, not to a household. Gallego, Lopez and Sepulveda (2015) show evidence that stratum is strongly correlated to household income and expenditure.

Specifically, this paper tackles the following questions: *i*) When allowed to form groups to start a potential interaction, do individuals prefer homogeneous groups in terms of SES, proxied by their strata? (i.e. segregation); *ii*) Do individuals use SES to pursue a differential treatment once the interaction is in place? (i.e. discrimination); *iii*) As SES is a function of various dimensions – it is related to wealth, to social group identity, and a particular set of abilities or preferences – do these dimensions play differential roles in explaining discrimination and segregation decisions?

We thus make the distinction between discrimination in the extensive margin (i.e. segregation) and discrimination in the intensive margin. We study the determinants of both following an experimental approach similar to Fershtman and Gneezy (2001), where individuals play a Dictator (Berg, Dickhaut and McCabe 1995) and a Trust Game (Kahneman, Knetsch and Thaler 1986). The nature of interaction in the latter is such that it is profitable to both parties if they can

trust each other. In the former, only a reallocation of the initial endowment is possible, which does not depend on trustworthiness but a taste for discrimination. Our innovation is to allow individuals to choose whom to interact with based on social types. Therefore, we can study what determines individuals' decision to segregate based on social types and not only decision to discriminate. We also elicit incentivized first-order beliefs for senders and receivers. The latter allows us to study whether participants expect to be segregated and discriminated based on their social type and source of social identity.

One important feature of our design is that we vary the source of social identity. Previous to playing these games, each individual is assigned one of two possible social types. In a between-subject design, the social type is assigned according to individuals' socioeconomic strata (*strata treatment*), individuals' preferences for art (*preferences treatment*), individuals' maths-skills (*ability treatment*), individuals' experimentally induced endowment level (*income treatment*) or based on a randomly allocated number (*random treatment*). The level of in-group identification is different in each treatment and is expected to be minimum in the latter. This enables us to study not only how segregation and discrimination react to information on SES, but also, how other defining features of this social identity affect them.

Our main findings suggest that when the social label is based on SES, it induces higher segregation than all other treatments. In particular, the difference is statistically significant for the *Income* treatment, irrespective of the nature of the strategic situation. We take this as evidence that the segregation observed in the *Strata* treatment cannot be attributed to income differences, at least when this difference stems from a non-meritocratic environment like in our set up.

As for discrimination behavior, we observe that in the *Strata* and *Income* treatments, high type senders show less in-group favoritism than in the *Random* treatment for both games. For the Trust Game, this is in line with statistical discrimination, while for the Dictator Game this is evidence in favor of a taste for redistribution. Finally, also in the *Strata* and *Income* treatments, low-type receivers are significantly more trustworthy, but less reciprocal, towards their same-type senders when compared to receivers in the *Random* treatment. Additionally, while we do not find evidence of expected discrimination, all receivers expect being segregated against, regardless of the social label treatment.

The rest of the paper is organized as follows: we present related literature in the next subsection. Section II describes the experimental design, section III presents the results and section IV concludes

A. Related literature

Numerous experiments in psychology and economics show that people behave differently depending on whether they interact with peers from the same social group – based on some predetermined or artificially induced identity (Lane 2016).¹ When an identity is randomly generated, people tend to favor those sharing their same label (Chen and Li 2009, Tremewan 2010). In contrast, when an identity is based on a predetermined communal characteristic, experimental evidence is not as definitive. People can engage in discriminatory behavior if incomes associated with subjects' districts are salient (Falk and Zehnder 2013), or avoid discriminating based on ethnicity (Fershtman and Gneezy 2001). Chuah, Gächter, Hoffmann and Tan (2016) find religiosity might explain statistical discrimination and Weng and Yang (2014) observe subjects' geographic origin leads to in-group favoritism.

A predetermined identity is composed of multiple dimensions, thus, any action conditional on it might represent a response to stereotypes held over a particular aspect. For instance, a person's socioeconomic stratum is, simultaneously, a group label, a signal correlated to wealth, a proxy for an underlying ability, or a particular set of preferences. In this paper, we exploit a predetermined characteristic (i.e., socioeconomic stratum) together with artificially induced social identifiers, to study whether pro-social behavior is sensitive to various underlying dimensions of SES.

Some papers have employed proxies of SES to determine whether individuals from wealthier backgrounds are more pro-social than those from poorer ones (Andreoni, Nikiforakis and Stoop 2017, Kosse, Deckers, Pinger, Schildberg-Hörisch and Falk 2020). Two studies are similar to each other and close to ours. One is Bogliacino, Lozano and Reves (2018)'s, that implements a similar setup as Fershtman and Gneezy (2001) but in a lab-in-the-field experiment with inhabitants of Bogotá. They exploit, as we do in this paper, socioeconomic strata division instead of ethnic backgrounds to categorize individuals between High (strata 6-5), Medium (4-3), and Low (1-2) status groups. Individuals face a between-subject design including the Trust and the Dictator Game with role reversal. Second mover behavior is elicited using the strategy method. Their design differs from ours in that decisions are not conditional on first mover's social stratum. They find no evidence of statistical discrimination nor of a taste for discrimination, although on average, every stratum believes that members from different strata will discriminate them. In the second one, Bigoni and Rattini (2018) use an online experiment to assess whether disparities in SES within Bologna, Italy, correlate with trust, trustworthiness, and altruism. They do not encounter out-group discrimination in any of the games. Differences arise when comparing the behavior of participants according to their area of residence: those from the High SES area trust more, are more trustworthy, and expect their counterpart to be more trustworthy than those from the Low SES area. We add in exploiting a naturally occurring social identity (i.e. socioeconomic stratum), that is unique to the Colombian society, highly correlated to SES. This comes with the added advantage that Colombians are used to revealing theirs and accessing information about

 $^{^{1}}$ An additional strand of the literature investigates how does revealing individuals' social identity might affect their own performance (Hoff and Pandey 2006).

others' socioeconomic stratum. This alleviates concerns that giving subjects information about SES in an experiment might strike them as odd and trigger some experimenter demand effect.

Independently on how studies define social identity, the literature has focused on examining the level of discrimination among members who have been exogenously assigned to pairs or groups. However, less attention has been focused to study segregation decisions based on such social identity, which may also depend on the nature of the potential interaction: either beneficial to both parties or a simple resource reallocation between individuals. In Aksoy, Eckel and Wilson (2018) Dictator Game recipients are presented with pictures of two dictators at a time and have to select the one they want to interact with. Interestingly, the only trait that affects the receiver's choice is the perceived reliability inferred from the dictator's picture. Castillo, Petrie and Torero (2012) investigate whether subjects use physical appearance to determine with whom they want to form a group in a linear public goods game. They find that more attractive individuals enjoy a higher chance of being chosen than an unattractive person.² Our paper contributes to this literature by investigating how various social identifiers, and the different nature of the Dictator and Trust games, are used to condition group formation decisions, as well as beliefs about the extent of segregation and discrimination behaviors.

II. Experimental design

A. General Setup

We ran a laboratory experiment with 575 students of four different strata from Bogotá city (stratum 3 to 6).³ Experimental sites were based at two leading Colombian private universities: Rosario Behavioral and Experimental Economics Lab - REBEL (304 students) and Universidad de los Andes (271 students). Participants faced two different games in a within-subject design: the Trust Game – TG (Berg et al. 1995) and a modified version of the Dictator Game – DG (first proposed by Kahneman et al. 1986). The nature of the interaction is different across both games: while in the TG it is monetarily profitable to both parties depending on trustworthiness, the DG allows only for a reallocation of the initial endowment among individuals.⁴

Previous to playing these games, regardless of the treatment, every session started with the following activities:

1) Participants had to report their household stratum. Colombians are used

²Mobius and Rosenblat (2006) also find a "beauty premium" in a labor market setup.

 $^{^{3}}$ More details on the experimental setup and instructions subjects faced can be found in the Appendix A.A2.

 $^{^4\}mathrm{We}$ control for order effects, 52% of subjects faced first the TG followed by the DG. The remaining faced the reverse order of the games.

to revealing this information in many standard forms they fill out during their lifetime.

- 2) Participants were given five minutes to add randomly generated strings of five two-digit numbers.
- 3) They had to choose between a Klee and a Kandinsky painting the one they liked the most.

Then each individual was assigned a "social type", either A or B based on a social group assignment that differs across treatments, following a betweensubjects design. All individuals are informed of their assigned social type and the corresponding procedure before starting the decision stage. Social groups were assigned in the following way: in the *Strata Treatment*, an individual social type was based on self-declared household stratum (A if stratum was 5 or 6, B if stratum was 3 or 4); in the Preferences (Art-Taste) Treatment it was based on preferences over paintings (A if the chosen painting was a Kandinsky, B if it was a Klee one); in the *Ability Treatment* we ranked participants according to their performance at adding up strings of five two-digit numbers within five minutes (A if individual's performance was above or at the median, B if performance was below). In the *Income Treatment*, subjects received an additional lump sum payment, which was either 10 Experimental Currency Units (ECU) or 5 ECU^5 and was determined randomly by the computer. Subjects that received 10 ECU were assigned type A and the remaining type B. Finally, in the Random Treatment, half of our subjects were randomly assigned to social type A and the other half to type B.

Notice the level of in-group identification is decreasing across the previous social group treatments: a household stratum is known to inhabitants of Colombian cities and is related to the SES of an individual, a proxy for other unobservable characteristics; mathematics proficiency may signal group members' skill and how worthy their social type is; groups based on taste for paintings guarantees members of the same type share their preferences for art. The *Income Treatment* aims to capture differences in material well-being. Finally, the randomly allocated social label has the minimum property of in-group identification.

After the social type stage, individuals were then assigned a role: either as a sender (a.k.a the first mover) or as a receiver (a.k.a. the second mover). Then participants made contingent decisions that we detail below. Table 1 summarizes the number of observations in each group treatment, social type, and role in our sample. It is worth emphasizing that each subject played both games (TG and DG) and kept his role and type across them.

– Table 1 here–

 $^{^5\}mathrm{At}$ an exchange rate of 3 ECU equals 1 USD. The average payment was 10 USD.

TRUST GAME. — In the TG treatment, senders received an endowment of 10 ECU and had to decide how many ECU they wanted to transfer to an (endow-less) receiver. The amount passed by the sender was tripled by the experimenter and passed to the receiver, who had to decide how much of the received amount he wanted to transfer back to the first mover.

In our setup, senders made contingent decisions: they decided how much to transfer to a receiver whose social type was "A" and how much to a receiver whose social type was "B". After this, senders were informed they could choose which of the two decisions they wanted to be implemented by the experimenter. That is, they were able to decide which receiver's social type, A or B, they would prefer to interact with. This provides us with a measure of the willingness to segregate.

It is plausible that after facing the decision on how much to transfer to each receiver type, in the second decision, a sender can anticipate that even though he is making a decision that would affect two different players, he would then have to decide which player he is actually interacting with. If this were the case, then a sender would not have an incentive to answer truthfully when asked about whether he wants to interact with a receiver type he knows he would not choose. This kind of behavior affects our measure of segregation. To avoid this, senders were informed that their partner choice would be implemented with 0.6 probability. With complimentary probability, 0.4, a random draw decided the type of receiver he was matched with.⁶

To identify if the observed pattern corresponds to taste for segregation or it is just statistical segregation, we elicited incentivized senders' beliefs on expected receivers' trustworthiness. This means that each sender was asked to reveal the amount he expected to receive back from each receiver's social type. We paid participants according to the accuracy of these beliefs using a quadratic scoring rule.⁷

Receivers also had to make contingent decisions. They had to answer, via the strategy method, how much would they send back for *each possible amount* they could receive from *each possible sender type*. These answers give us measures of conditional trustworthiness and reciprocity. We also recover receivers' beliefs about the amount they expected to receive from each sender type and how likely (i.e., very likely, somewhat likely, very unlikely) it was that every sender's type would choose them. These measures are related, respectively, to expected discrimination as well as to expected segregation. Beliefs elicitation regarding the expected amount was incentivized in the same way as senders' beliefs. Beliefs about expected segregation were incentivized depending on the percentage

⁷Which is defined as $T\left[1-\left(\frac{x_{j_i}-x_i^e}{\hat{x}_j}\right)^2\right]$ where T Maximum Tokens; x_{j_i} transfer from j_i matched to i; x_i^e stated beliefs of i on amount sent by j_i , and \hat{x}_j is the maximum possible number of tokens.

⁶Individuals' decisions had a larger likelihood to determine the payoffs of the other player, so their partner's social type choice was salient.

of senders of each type choosing a receiver of a given type. If such percentage was above (below) 2/3 (1/3) and a receiver specified that such event was very (un)likely, she received 6ECU, while any percentage between [1/3, 2/3] paid 6 ECU to the receiver if he stated that such event was somewhat likely.

DICTATOR GAME. — Besides the TG, participants also played the DG. In the DG, the sender was also endowed with 10 ECU and had to decide how much to transfer to an endow-less recipient, who received the tripled amount transferred by the sender. In this game, the recipient had no action set. We modified the original game by tripling the amount of the transfer to keep monetary incentives comparable to the TG. Just like in the TG, the sender made two contingent decisions: the amount he would transfer to a recipient if he is matched with a *Type-A* recipient and the transfer to a *Type-B* recipient. After this decision, the sender had to choose which of his decisions he wanted to be implemented, that is, whose recipient type he wanted to interact with. The first decision provides a measure of taste for discrimination and the second decision allows us to measure a taste for segregation. We measured a recipient's beliefs about the size of the transfer he expected to receive from every sender social type, and how likely he expected to be chosen by each of them. Both decisions were incentivized using the quadratic scoring rule.⁸

B. Additional details

As subjects played both games, only one of them was chosen, with equal probability, for the final payment. This allows us to keep incentives salient in both games and avoids compensatory behavior across games. Both things are crucial to retrieve subjects' preferences in each game. The final payment was composed by the actual outcome from decisions and stated beliefs. Blanco, Engelmann, Koch and Normann (2010) show that if the hedging opportunity is not too salient, participants do not hedge between the belief elicitation task and the choice task. To avoid the saliency of the hedging opportunity, the maximum payment from the belief elicitation task represented only 30% of the maximum payment of the choice task.

Let us now briefly explain in more detail the choice of our treatments. The *Strata Treatment*, where subjects were assigned a social type "A" or "B" according to the stratum where they live in, gives us a clean way to identify segregation and discrimination stemming from socioeconomic differences. However, the stratum is

⁸The scoring rule for the contingent amount sent by first movers expected by second movers follows the same logic as for first movers. However, for their beliefs on first movers contingently selecting them it follows $T \times g\left(\left|\overline{d} - d_{2_i^n d}^e\right|\right)$ where \overline{d} is the percentage of senders choosing a Type-A receiver. Correspondingly, $d_{2_i^n d}^e$ is *i*-second mover's belief on the percentage of senders choosing a Type-A receiver. $g(\cdot)$ is a decreasing monotone function.

a mixture of characteristics: it provides information about the socioeconomic level of a person; it is a source of group identity; and, two persons living in the same stratum can end up sharing similar preferences. To disentangle these dimensions, we pursue three additional treatments, apart from the *Random Treatment* which has a minimum in-group identification property:

- 1) Ability Treatment, where subjects were assigned social type "A" or "B" according to their performance in adding strings of five two-digit numbers. In a meritocratic environment, type-As are worthy of their label due to their above-median performance.
- 2) *Preference (Art-Taste) Treatment*, where subjects had to choose, between two paintings, the one they liked the most guarantees that two participants with similar preferences share the same social type.
- 3) *Income Treatment*, in which subjects labelled with type "A" received a larger additional endowment than those labelled "B", apart from attaching, to each individual, a social label, it makes salient to subjects that such label is correlated with their income.

Finally, notice that by allowing senders to decide whom to interact with, given our between-subjects social types assignment, we are addressing whether individuals use SES, or any of its fundamental dimensions, to segregate, maintaining comparability to the previous literature on discrimination decisions. And, thanks to our within–subject design for the two games played, we can investigate how the nature of the potential interaction determines segregation and discrimination decisions. Given we have so little experimental evidence on what determines segregation this paper constitutes a general analysis of its determinants given different sources of social identity.

III. Results

We now turn to our experimental results. We begin by briefly analyzing general results for the TG and DG. After that, we focus on the specific goals of the paper; we start with senders' willingness to segregate since it is our main contribution. We then turn to the results of discrimination and reciprocity. Finally, we present the results for expected segregation and expected discrimination.

A. Trust and Dictator Game transfers

We start by analyzing transfer decisions in the TG and DG. We just provide average and standard deviation figures, since this is not the main focus of the paper. TG transfers range between 36% (in the *Strata* treatment) and 20% (in the *Ability* and *Random* treatments) of the endowment. In the DG, the average proportion of the endowment sent to the receiver is lower. This was expected and in line with the literature (Lane 2016). Dictator average amount given is between 23% (from the Type A sender to his out-group in the *Income* treatment) and 11% (for the Type B sender in the *Preference* treatment).⁹

Figure 1 shows the average percentage transfer by treatment, sender, and receiver type, with 95% confidence intervals. As can be seen, transfers in the DG are lower than in the TG for each treatment and sender-receiver type pair. However, for each treatment, the behavioral pattern across games is similar. In particular, for the *Strata* treatment we observe that the Type-A senders transfer a larger proportion of their endowment to their out-group counterpart in each game, while the Type-B senders show in-group favoritism.

– Figure 1 here

Nonetheless, we note that the observed differences in average transfers are not statistically significant and regression analysis is needed to add controls and investigate further. However, it is out of the scope of this paper to compare DG to TG behavior, so we refrain to do so and we focus on our results of interest, which are segregation and discrimination decisions.

B. Segregation

Whether people choose to interact with others that they perceive similar to themselves has not been extensively studied before. Our experiment addresses this issue. Overall, 46% of the sample choose to interact with his own type in the TG, 43% do so when facing the DG, and 27% make that choice in both instances. A Pearson chi-square test for segregation in the TG and the DG rejects the null hypothesis of the variables being independent, suggesting that the decision to segregate in the TG is correlated to the decision to segregate in the DG (Pearson $\chi^2(1) = 20.87$, p-value = 0.000).

Figure 2 shows the relative frequency in which senders choose receivers of their same type (i.e. an in-group receiver), by treatment and game. The panel on the left corresponds to the DG and the one on the right corresponds to the TG. If social types were not important in determining with whom they would like to interact, then in half of the cases they should choose a receiver of his own type. The dashed horizontal line in the figure depicts the 50% reference point.

– Figure 2 here

The figure shows several interesting facts. First, for both games, the choices in the *Random* treatment are virtually on the 50% line, as expected. Second, for both games as well, the treatment *Strata* presents the highest relative frequency

 $^{^{9}}$ Note that the DG's transfer of Type A senders to his out-group is the only one that breaks the 20% barrier. This does not come as a surprise. Recall that in the *Income* treatment, we induce an unequal income distribution between Type A and Type B participants and the type assignment is random. The dictator transfer of Type A towards Type B participants seems aimed at closing this gap.

of choices of a receiver of the same type. This difference is statistically significant when compared with the treatments depicting the lowest relative frequency of same type choices: the *Ability* and *Income* treatments for the DG; and the *Preference* and *Income* treatments for the TG. Finally, for the DG, the *Ability* and *Income* treatments show significantly less segregation than the *Random* treatment. Therefore, information about socioeconomic strata seems to affect segregation decisions in another way than when income differences are salient, at least in our setup, where the latter cannot be attributed to a meritocratic process.

Table 2 presents results from linear regressions where the dependent variable takes value one when the sender chooses a receiver of his same type and zero otherwise. In the first panel (i.e. columns 1-4) the results correspond to the DG, and the last panel (i.e., columns 5-8) to the TG. We include social treatment dummies as independent variables, being *Strata* the excluded treatment.

As our subjects decide twice per game (i.e. one for each receiver type) we compute robust standard errors clustered at the individual level to adjust for dependencies across decisions. In the first two columns of both panels we perform the analysis by pooling all observations. In the third and fourth columns of each panel, we show results for social type-A and type-B respectively. Except for the first column of each panel, in all other regressions, we control for the difference between the amount sent to an in-group minus out-group receiver. We do so to account for the payoff maximizing counterpart choice given transfer decisions. We also control for the order in which individuals face the DG and TG, and individual characteristics (gender, university, and age). We also control by sender's belief on the amount sent back from receivers of each type.¹⁰ Although the latter variable is collected under the TG, we control for it in the DG to check whether receiver's perceived trustworthiness affects redistributing preferences. At the bottom of the table, we report the p-value of the null hypothesis testing whether group treatment coefficients are equal.

- Table 2 here -

For the DG, the first two columns of Table 2 confirm senders under the *Strata* treatment are more likely to choose a receiver of their same type than their peers in *Ability* and *Income* treatments. Also, larger amounts transferred to an in-group versus an out-group lead to a lower probability of segregating against out-groups, which is consistent with payoff maximization. In the experiment, subjects first made contingent decisions on how much they would transfer to a receiver of each possible social type. Hence, when subjects were asked to choose their recipient type, they could make a choice that maximizes their own payoff. Note, however, that payoff maximizing behavior does not attenuate the observed differential treatment effects.

Results in columns 3 and 4 suggest that treatment effects are mainly driven by the behavior of type-A senders. Furthermore, type-A senders in the *Strata* treat-

¹⁰Results are robust to excluding these last two variables from the regressions.

ment, also segregate significantly more than those in the *Random* and *Preferences* treatments. All in all, for type-A senders, Strata treatment carries significantly different information from all other conditions: they are about 30 percentage points more likely to choose a receiver of their same type. Under the Strata treatment, 71.4% of type-A senders are willing to segregate in favor of their same social group receivers, while only 46.5% of type-B senders do so. This suggests high socioeconomic strata subjects are more willing to segregate against other social types than low socioeconomic strata ones.¹¹ The aim of introducing the Preference, Ability and Income treatments was to tease out the aspect of the Strata label that drives the *Strata* treatment effect, if there is one. For the case of segregation behavior in the DG, the component of the Strata label that seems more likely to explain the observed treatment effect is the aspect of shared preferences. The *Preference* treatment effect is the weakest and smallest, while segregation behavior for this game in this treatment is not statistically different than the one observed in *Random*. However, it significantly differs from *Income* and *Ability*, as behavior in *Strata* does.

For the TG, results show a similar pattern that the one observed for the DG. The first two columns of the second panel in Table 2 show that results observed in 2 still hold. Again, the treatment effects observed for the pooled sample are mainly driven by type-A senders. Type-A senders under the *Strata* treatment are more likely to segregate than their peers under any of the other treatments except *Random*. That is, while segregation decision does not differ between *Strata* and *Random* treatments, those under *Preference*, *Ability* and *Income* treatments are less likely to choose an in-group recipient. Note, however, that the observed choice of an in-group in the *Strata* treatment is comparable to the one observed in the minimum group identity treatment. Therefore, we do not find supporting evidence of a clear pattern of segregation behavior by type-A senders in the TG.

On the other hand, type-B senders in the *Strata* treatment segregate significantly more than those in the *Random* variation, which implies that socioeconomic stratification is meaningful for segregation decisions above and beyond minimum group identity. Additionally, note that the same statistically significant difference for the *Random* treatment holds for type-B senders in the *Ability* treatment. Hence, here, the Strata aspect that seems to be driving behavior is the shared ability. Contrary to what happens in DG, according to Table A1, types A and B seem equally likely to choose an in-group receiver when facing the TG (a chance of around 60%).

Finding 1 Type-A senders are more likely to choose in-group receivers in the DG when compared to all other treatments, and their choice in the TG is not statistically different from the one made under the minimal group identity specification (i.e. Random Treatment).

¹¹See table A1 in the Online Appendix. In this table, we include regressions for a fully saturated model where we additionally include interaction terms between Game and Social Group Treatments. Also, table A2 where we report base levels of segregation.

For type-B senders we have the opposite result: there are no treatment effects for the DG, but in the TG their recipient choice favors their in-group, both in the Strata and Ability treatments, relative to Random treatment.

C. Discrimination, trustworthiness and reciprocity

We now analyze the decision to discriminate for both, senders and receivers. Senders can discriminate by transferring different amounts according to the receivers type, both in the TG and in the DG. Receivers can discriminate only when facing the TG since they make contingent decisions on how much to send back to each sender type. One could interpret it as to how trustworthy receivers are. Additionally, as receivers make these contingent decisions for every possible senders transfers and both sender types, we also have a measure of differential reciprocity.

SENDER. — All in all, in the TG, 28% of the sample chooses a larger transfer for their in-group relative to their out-group. Following the literature, we refer to this as in-group favoritism. For the DG this figure is 21%. Only 11% of the sample chooses to favour their in-group in both games. A Pearson chi-square test allows rejecting the null hypothesis that in-group favoritism is independent across games (Pearson $\chi^2(1) = 23.4210, p - value = 0.000$).

Figure 3 depicts the difference between the amount sent by senders to an ingroup receiver minus the amount sent by senders to an out-group receiver. A strictly positive difference is evidence of discrimination favoring the same group members (i.e., in-group bias). On the left (right) hand side we show that difference for the DG (TG). For each game, we vary, on the horizontal axis, the social group treatment. Although the difference is positive, in both games, for Strata, Preferences, and Ability treatments, only for the Preferences one, under the TG, this difference is statistically different from zero. Note, however, that there are some significant differences across treatments. For the DG, senders in the *Preferences* treatment on average choose to transfer a larger amount of their endowment to a receiver of their own type than to someone of the opposite one, while average behavior in the *Random* and *Income* treatments is the opposite. For the TG, the average difference between the amount sent to an in-group versus an out-group in the *Preferences* treatment is larger than in all other treatments apart from *Random* treatment. As we note below, these differences are not statistically significant once we include controls in the regression analysis.

– Figure 3 here –

The regression analysis for discrimination follows the same structure as the one for the segregation decision. We run the same model separately for each game.¹²

 $^{^{12}}$ This allows controlling for the sender's first-order beliefs about the trustworthiness of each receiver's

- Table 3 here -

Table 3 shows these results for the TG. Columns 1 to 3 include only treatment dummies and the usual controls. Columns 4 to 6 also include the difference between the sender's first-order beliefs for the same receiver's type versus the other type. Column 1 presents the results for the pooled data (i.e. without differentiating senders by their social type). The only significant treatment effect compared to the Strata treatment is seen in the Preference treatment. In the latter, although it is not significantly different than the *Random* treatment, we observe higher discrimination than *Income* and *Ability* treatments. Columns 2 and 3 show results by the sender social type. For type-A senders, the Strata treatment induces significantly less in-group favoritism than Random, Preferences and *Ability* treatments. The element of the SES that seems to be prevailing in the trust decision for type-A senders is the income level, since behavior under *Income* treatment is statistically similar to the one exhibited under *Strata* treatment. For type-B senders, we observe more in-group favoritism under Strata than under Ability. This means that the low performers in the only meritocratic treatment show a lower difference in the amount sent to a recipient of their same type vs the one sent to a high performer. But this is only statistically significant when compared to the *Strata* and the *Preference* treatments.

However, results in columns 4 to 6 show that most of these treatment effects vanish once we control for the differences in senders' first-order beliefs. The only effect that is robust to the addition of the belief control is for type-A senders, who exert significantly higher discrimination under *Ability* compared to *Strata* and *Income* treatments. Interestingly, group treatment effect coefficients for type-B senders are all negative, although not statistically different than zero, compared to *Strata* treatment. Suggesting that, if anything, both social type senders are willing to forego larger amounts to type-A receivers in any treatment apart from *Strata*. The fact that treatment effects shown in columns 1 to 3 do not survive the addition of the difference in senders' first order beliefs suggests that the described effects are due to statistical discrimination, as opposed to a taste for discrimination. That is, senders send less to their out-group receiver than to their in-group not because they achieve a higher utility when discriminating, but because they expect their in-group counterpart to be more trustworthy than the out-group one.

To determine whether our subjects have a taste for discrimination we now investigate the results for the DG (Table 4). For the data where we pooled sender types (Column 1), there are no significant treatment effects. However, when we examine behavior by sender social type we see that type-A senders in

social type. It is well documented that in the TG, the amount sent by the first mover depends on the beliefs he holds about the amount that the receiver will send back to him (Camerer 2011, see Chapter 2). Hence, in our analysis is crucial to control for the difference in the sender's beliefs about the amount that a receiver of his same type will send back to him versus an out-group receiver. Since the sender's beliefs are only collected for the TG, this precludes us to use a specification that pools the data for both games into one single regression. See also Table A3 in the Online Appendix for a fully saturated model using the pooled sample for both games.

the Strata treatment show less in-group favoritism than those under Preferences, Random and Ability treatments. We note two additional things, first, the ingroup favoritism under the minimal group identity paradigm is not statistically different than the one under the meritocratic treatment, which is striking. The other is that the Income treatment shows the same treatment effects that Strata, when compared with all others. Hence, once again, it seems that the feature of the SES dimension that is prevailing in the Strata treatment is income differences. For type-B senders, similarly to our findings for the TG, all the group treatment coefficients are negative, meaning that, when compared to the Strata treatment, senders in the other treatments transfer more to high type receivers than to low type ones.

However, the only statistically significant differential effect, with respect to *Strata*, is the *Random* treatment. Taken together, results for the DG suggest that high SES senders have a taste for redistribution, that is, they are willing to transfer larger amounts of their endowment to low SES receivers.

– Table 4 here –

Finding 2 In both games, we find evidence of type-A senders under Strata and Income treatments show less in-group favoritism than those same type senders under Ability, Preferences and Random social treatments. While type-B senders under Strata treatment send more to their in-group receivers than under the Random treatment in the DG. For the TG, this corresponds to statistical discrimination, while for the DG there is a taste for redistribution (or positive discrimination).

RECEIVER. — We also investigate whether receivers perform any sort of discrimination, based on the sender's type, when deciding what amount to sent back to first movers. As we use the strategy method to elicit these choices, we ask receivers to choose how much, from each possible amount sent by a type-A and type-B sender (which belongs to the set $\{2, 4, \ldots, 20\}$ of ECU), they would be willing to send back. Therefore, for each receiver, we have 20 different choices: one for each amount sent by a type-A and type-B sender. Figure 4 depicts the percentage sent back by receivers from each possible amount they could receive from an in-group or out-group sender (solid and dashed lines respectively). We distinguish this decision by receiver's types (blue lines for type-A receivers, red lines for type-B ones) and by social group treatment.

– Figure 4 here –

What becomes immediately apparent from this figure is that the larger the amount sent by first movers, the larger the percentage sent back by receivers. Type-B receivers (red lines) send back substantially less under the *Income* and *Ability* treatments than type-A ones (blue lines). Both receivers types sent back

lower amounts in the *Ability* and *Random* treatments than in the *Strata* or *Preferences* treatments. For *Strata* and *Ability* treatments, type-B's elasticity of amount sent back to the amount received seems lower than type-A ones. There is no noticeable difference between the amount sent back by type-A receivers and type-B ones when facing either the *Random* or *Preferences* social group treatments.

Using these data, we first create two dependent variables: (1) the percentage sent back by a receiver to an in-group sender, (2) the percentage sent back by a receiver to an out-group sender. We regress our dependent variables on social group treatment dummies, the full support of the possible amounts that a first mover could send, and the interaction between group treatment dummies and these possible amounts. The first set of controls tells us whether there is any difference across treatments in the intercept of Figure 4, for each solid (in-group) and dashed (out-group) lines, which we relate to the base level of trustworthiness. The latter set of controls tells us if group treatments affect the sensitivity of the amount that a receiver sends back, to the amount received from the sender, which we relate to the level of reciprocity. We also control for gender, university, and age. As every receiver has 10 choices, we compute robust standard errors clustered at the individual level.

We report results for these econometric specifications in Table 5. For columns 1-3 the dependent variable is the percentage sent back by a receiver to an ingroup sender, columns 4-6 show the same figure but to an out-group sender. We report results from a pooled sample for both receiver types (Columns 1 and 4) and separately for each receiver type A and B (Columns 2-3 and columns 5-6 respectively). Note that in these regressions the constant represents the base trustworthiness of receivers in the *Strata* treatment, while the coefficient associated with the variable *Possible Amount Received* depicts their reciprocity. When pooling receiver types, the average receiver under Strata treatment gives back to an in-group (out-group) sender around 87.1% (80.4%) of the amount received. From columns 2 and 5 type-A receivers in the *Ability* treatment, send back a significantly lower percentage to their in-group and out-group senders compared to the *Income* treatment. This might be a signal that those that end up in the upper half of the ability distribution, feel they are more entitled to keep a higher share of the amount received, while those that, randomly, receive a larger initial endowment, are willing to send back a larger share of the amount received from first movers as a strategy to reduce artificial inequalities. In column 3 we see that type-B receivers under the *strata* treatment are more trustworthy than those facing *Random* social types. There are no significant treatment effects for other social group treatments, even when looking only at a particular receivers' type at a time.

Regarding reciprocity, results in column 1 and column 4 make evident that for *Strata* treatment, for every additional ECU received in the *Strata* treatment, receivers give back between 1.4pp and 1.6pp, no matter whether senders share their same social type. Other treatments do not have any additional effect. Comparing columns 2 and 5 to 3 and 6 respectively, we see that type-A receivers send back around 0.8pp to 1pp more, per every ECU received than type-B receivers no matter the social group treatment. Finally, in column 5, we see that type-A receivers under the *Ability* treatment send around 1pp more to out-group members, per ECU received, than those under the *Income* treatment.

– Table 5 here –

In Table 6 we report the results from the same specification but where the dependent variable is the difference between the percentage sent back to an in-group sender and the one sent back to an out-group one. Graphically this econometric exercise tells us the sign and magnitude of the gap between the solid and dashed lines from Figure 4, and whether it widens or shrinks with the amount received, for different social group treatments and receiver types. Interestingly, all the action seems to come from type-B receivers' behavior. Those type-B receivers facing the *Strata* or *Income* treatments give back larger percentages to their ingroup senders than to senders of their opposite socioeconomic strata, and this gap shrinks with increases in the amount received, compared to what we observe in the *Random* treatment. This means that the SES dimension that seems more important in determining differential levels of trustworthiness and reciprocity for the low socioeconomic stratum receivers is the monetary dimension.

– Table 6 here –

Finding 3 Type-B receivers under Strata and Income treatments are more trustworthy, but less reciprocal, towards their same-type senders than those under the Random treatment.

Type-A receivers under the Ability treatment are more trustworthy towards their out-group senders than those under Income treatment.

D. Correlation between discrimination and segregation behavior

Next, we look at how segregation and discrimination decisions are correlated within each game. Since our segregation variable is dichotomous while discrimination is a continuous variable, we compute the point biserial correlation coefficient for each game. For the TG, we find that decisions are negatively correlated, the calculated coefficient is -0.18 (p-value= 0.003). This means that as the difference between the amount sent to an in-group vs to an out-group receiver grows, it is less likely that the sender would choose his in-group receiver to interact with. This correlation is consistent with payoff-maximizing behavior. Though the correlation coefficient is not high, it is statistically significant. If we look at this correlation by sender type, results are in the same line. The point biserial correlation coefficient is -0.178 (p-value= 0.042) for Type-A senders and -0.197 (p-value= 0.025) for Type-B.

On the other hand, for the DG, the point biserial correlation coefficient between segregation and discrimination is positive, though small and not significant (coefficient = 0.022, p-value= 0.72). When we look at it by the sender's type, results differ. For Type-A senders the coefficient is positive and weakly significant (coefficient = 0.150, p-value= 0.086), indicating that in the dictator game the larger the in-group favoritism, the more likely they are to choose a receiver from their same type. On the contrary, for Type-B senders, the correlation coefficient is negative and not statistically significant (coefficient = -0.095, p-value= 0.283).

E. Expectations about segregation, discrimination and trustworthiness

Finally, we study whether senders and receivers hold consistent beliefs about trustworthiness, discrimination, and segregation. Receivers' beliefs give us a measure of expected segregation and expected discrimination from senders depending on their social types. Senders' beliefs about the receiver's trustworthiness can explain whether they segregate or discriminate against certain social group types as a response to their expected behavior (i.e. statistical discrimination). In that sense, they might not have a taste for segregation nor discrimination, but they react strategically according to their expectations about receivers' behavior, as our analysis for discrimination in the TG suggests.

RECEIVERS' BELIEFS. — First, we study beliefs held by receivers about extensive (related to expected segregation) and intensive (related to expected discrimination) margins of senders' actions. To get a measure of the first variable we asked receivers to state how likely they thought a sender of a given type would choose a receiver of each social type. Such variable takes values from 1 to 3, being 1 very unlikely, and 3 very likely. For the second variable, we simply asked receivers to state what amount were they expecting from a sender of each social type. As described before, both variables were measured in an incentive-compatible way.

Figure 5 depicts the difference in the receiver's belief about the likelihood of a sender choosing an in-group minus an out-group receiver. These beliefs provide a measure of expected segregation. Notice the support of this difference is between -2 (when a sender choosing an out-group receiver is thought to be more likely than an in-group receiver, that is, homophily is thought to be extremely unlikely) and 2 (when homophily is thought to be extremely likely). A value equals to zero means receivers don't expect senders using their social type to decide with whom to interact. We first note that, irrespective of the social group treatment, all receivers expect homophily – for all group treatments, the null hypothesis that the difference is statistically greater than zero cannot be rejected. Additionally, receivers facing the *Strata* treatment are the ones expecting lower levels of segregation for the TG, while for the DG it is the receivers facing the *Ability* treatment. In both games, the highest level of expected segregation is found for receivers facing the *Preferences* treatment. However, there are no statistically significant differences across group treatments.

– Figure 5 here –

In Figure 6 we show the difference between the receiver's belief about the amount sent by an in-group sender minus the amount sent by an out-group sender, which is a measure of expected discrimination. For all treatments, apart from *Income*, receivers expect senders transferring larger amounts to a second mover belonging to their same type. Only in the *Preferences* treatment, this expected discrimination is statistically different than zero for both games, and is consistently larger than expected discrimination under the *Income* treatment. Expected discrimination is larger when subjects face the TG compared to the DG.

– Figure 6 here –

To tell how robust findings from Figures 5 and 6 are, we run a linear regression for the extensive (i.e., expected segregation, see Table 7) and the intensive margin (i.e., expected discrimination, see Table 8)¹³. In columns 1 to 3, we present regressions for decisions made in the DG and in Columns 4 to 6 for the ones made in the TG.

– Table 7 here –

Results suggest that receivers, no matter the social group treatment, expect being segregated based on their social type: the constant in all regressions, apart from low SES receivers facing the TG, is positive and statistically significant different than zero. Additionally, there are almost no differences in expected segregation, across group treatments, in the DG or the TG. Type-B receivers facing the *Strata* treatment expect their same social type senders being more likely to choose a Type-A receiver when they face the TG compared to the DG. Type-B receivers facing the *Preferences* treatment and the DG expect more segregation than same receivers facing the *Ability* or *Strata* treatment. In the TG, they expect more segregation than same receivers facing the *Random, Income* or *Strata* treatment.

– Table 8 here –

On the intensive margin, the evidence in favor of expected discrimination is weak: for none of the treatments we find receivers, other than Type-A in the DG, expecting in-group bias from senders.

For the DG, Type-B receivers in the *Preferences* treatment expect senders to exhibit a stronger in-group bias than those in the *Strata*, *Ability* and *Income* treatments. This also holds for the TG, though somewhat attenuated.

 $^{^{13}}$ See tables A5 and A6 in the Online Appendix for these same regressions but adding controls which make treatment effect estimators more efficient but masks the baseline expected segregation levels.

Finding 4 Receivers expect to be segregated based on their social type, no matter its source or the game they faced. There is evidence that type-B receivers under the Strata treatment expect less homophily when facing the TG compared to the DG. Type-B receivers under the Preference treatment expect more in-group bias than in the Strata, Ability treatments when facing the DG, and than in the Strata, Income and Random when facing the TG. On the contrary, most receivers do not expect to be discriminated based on their social type.

SENDERS' BELIEFS. — Finally, in figure 7 we plot, on the vertical axis, the difference in sender's belief about the percentage sent back by an in-group minus an out-group receiver, by sender's social types (A and B) and across group treatments. A positive and significantly different from zero variable indicates a bias in favor of the trustworthiness of a receiver from the same type. Although in the *Strata* treatment, high socioeconomic strata senders believe that receivers from lower strata would send back around 5pp more than their high strata counterparts, we find that this difference is not statistically different than zero. Overall, we don't find evidence that senders expect statistically significant differences in receivers' trustworthiness.

– Figure 7 here –

In Table 9 we take as dependent variable the difference between the sender's belief about the amount sent back by an in-group versus an out-group receiver. Such beliefs are collected only for the TG. In column 1 we control for social group treatment dummies, in column 2 we add order effects, and we additionally control for the amount sent by Sender to an in-group and an out-group receiver, and in columns 3 and 4, we differentiate between sender social types. These results confirm what is apparent from Figure 7: there are no differences in the senders' beliefs about the receivers' trustworthiness.

– Table 9 here –

Finding 5 Senders do not expect receivers from different groups to present differential levels of trustworthiness.

IV. Conclusion

In this paper, we have studied whether individuals use various sources of social group identity to segregate or to discriminate. We took advantage of the Colombian setting where socioeconomic status is easily identifiable and salient and added other social identity treatments to disentangle which dimensions are more relevant to determine these behaviors. We investigated social group identity stemming from socioeconomic status versus preferences, ability, income, and minimum group identity paradigm. We did so for two situations involving different degrees of strategic interaction: the Dictator Game and the Trust Game.

As opposed to the previous literature, we studied discrimination both at the intensive and extensive margin (known in the literature as segregation). An additional contribution of our paper is that we studied expected segregation and expected discrimination by eliciting incentivized subjective beliefs.

We implemented two games to check whether preferences change with the nature of the strategic interaction, and we do find this. There is heterogeneity in the treatment effects found for each game and, within each game, for each player type. Our findings suggest that type-A (i.e., high socioeconomic stratum) senders segregate in favor of their in-group receivers in the DG based on socioeconomic status. This is consistent with payoff-maximizing behavior and seems to be driven by a willingness to interact with peers sharing similar preferences. On the other hand, low socioeconomic status senders are significantly more likely to segregate in favor of their own type in the TG than in the DG. Our results suggest the SES defining dimension explaining this behavior might be the shared ability one.

Regarding discrimination, in the TG we found evidence that type-A senders show significantly higher in-group favoritism in the *Ability, Preferences* and *Random* treatments, while those in the *Strata* and *Income* treatments do not. However, when controlling for first-order beliefs, the effect for *Random* and *Preferences* treatment vanishes, suggesting that observed behavior is motivated by statistical discrimination as opposed to a taste for discrimination. Nevertheless, in the DG, type-A senders in *Strata* and *Income* have a taste for positive discrimination (i.e., a taste for redistribution) compared to the treatment featuring the minimal group identity paradigm (*Random*). In the same line, the type-B senders favor their in-group receivers when comparing the *Strata* to the *Random* treatment.

Our paper also contributes to the analysis of expected segregation and discrimination. We found that receivers expect to be segregated based on their social group no matter the origin of the social types. However, Type-B receivers whose social type originated from socioeconomic status differences expect less homophily under the TG than under the DG. Type-B receivers facing the *Preferences* treatment expect more discrimination when playing the DG than in the other treatments. Senders do not expect differential levels of trustworthiness from receivers.

We acknowledge some limitations of our approach. First, because our study was conducted in two private universities in Bogotá, we only focused on recruiting students from strata 3 to 6. In such universities, is hard to find students from lower strata. Therefore, our "low strata" participants belong to the middle strata rather than strata 1 and 2. Thus, we consider that the effects we found are a lower bound of the results we would have observed if we had managed to recruit strata 1 and 2 subjects.

Future agenda should explore third party expectations of segregation and dis-

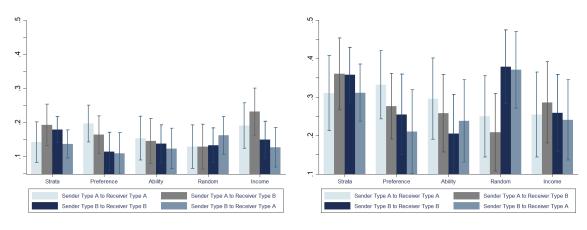
crimination based on SES, as well as social norms regarding the acceptability of such behavior.

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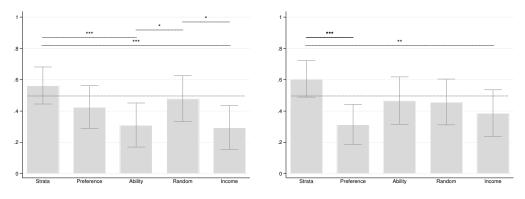
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Figures



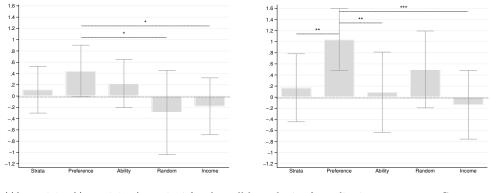
(a) % Transfer (Dictator left, Trust right)

FIGURE 1. TRANSFER BY SENDER AND RECEIVER TYPE BY TREATMENT, (DICTATOR LEFT, TRUST RIGHT)



(a) % of instances a Sender chooses an In-Group Receiver (Dictator left, Trust right) *** p < 0.01, ** p < 0.05, *p < 0.1 for the null hypothesis of equality in means across Group Treatment

FIGURE 2. Relative Frequency in which Sender chooses an Receiver of his same Type by Treatment, (Dictator left, Trust right)



*** p < 0.01, ** p < 0.05, * p < 0.14 for the null hypothesis of equality in means across Group Treatment

Figure 3. Difference in amount sent by Sender to an In vs Out-group Receiver by Game (Dictator left, Trust right) and Social Group Treatment

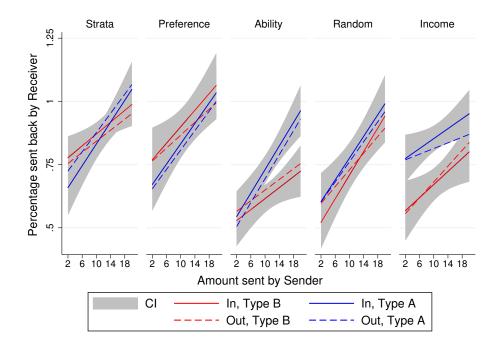
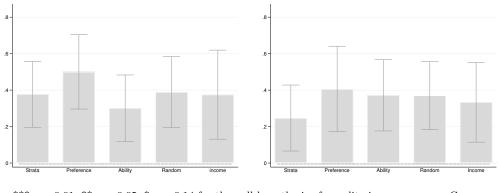
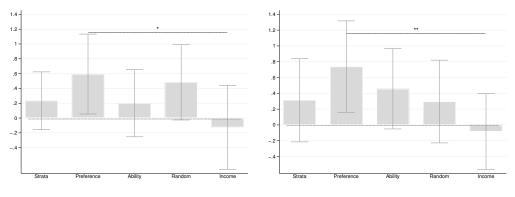


Figure 4. Percentage sent back by Receiver of amount sent by an In-Group (solid) or Out-Group (dashed) Sender. By Receiver type (B red, A blue) and social group treatment



***p < 0.01, **p < 0.05, *
 p < 0.14 for the null hypothesis of equality in means across Group Treatment

Figure 5. Difference in Receiver's belief on Sender Choosing an In vs Out-group Receiver (Dictator left, Trust right)



*** p < 0.01, ** p < 0.05, * p < 0.14 for the null hypothesis of equality in means across Group Treatment

Figure 6. Difference in Receiver's belief on Amount sent by an IN vs Out-group Sender (Dictator left, Trust right)

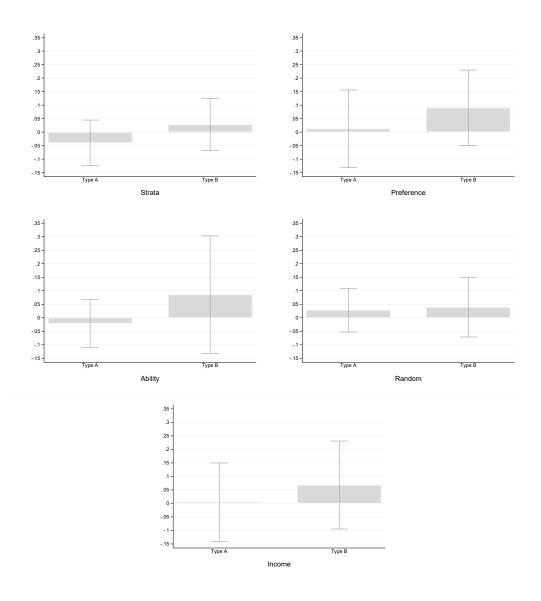


Figure 7. Difference in Sender's belief on percentage sent back by an in vs Out-group Receiver

Tables

Table 1—Number of subjects by social group treatment, role (sender or receiver) and social type (B or A) $\!\!$

Social Group	Role (Social Type)	assigned to subjects	
Treatment	Sender (B/A)	Receiver (B/A)	Total (B/A)
Strata	71 (43/28)	77 (46/31)	$148 \ (89/59)$
Preferences	54(20/34)	64 (25/39)	$118 \ (45/73)$
Ability	45(21/24)	70 (35/35)	$115 \ (56/59)$
Random	48(24/24)	54 (27/27)	$102 \ (51/51)$
Income	44(22/22)	48(24/24)	92 (46/46)
Total (B/A)	262 (130/132)	313 (157/156)	$575 \ (287/288)$

e Receiver All Types Type A Type B All Types -0.101 -0.097 -0.337^{**} 0.030 -0.136 -0.131 -0.101 -0.096 (0.143) (0.132) (0.097) (0.096) -0.1139 -0.122 -0.261^{**} -0.260^{***} -0.260^{***} -0.260^{***} -0.123 -0.122 -0.261^{***} -0.039 -0.136 -0.135 -0.1254^{***} -0.030 (0.143) (0.091) (0.091) (0.091) -0.254^{***} -0.261^{***} -0.261^{***} -0.234^{***} -0.034 -0.259^{***} -0.030 (0.118) (0.1127) (0.094) -0.259^{***} -0.025^{***} -0.024^{***} -0.234^{***} -0.234^{***} -0.259^{***} -0.268^{***} -0.024^{***} -0.234^{***} -0.234^{***} -0.259^{***} -0.026^{***} -0.024^{**} -0.234^{***} -0.234^{***} -0.259^{***} -0.026^{***} -0.264^{***} <th>es Type A Type B</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	es Type A Type B						
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		All Typ	Type B	Type A	lypes	L IIA	1 [Sender chooses same-Type Receiver]
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-0.131 0.022 -0.283**		0.030	-0.337**	-0.097	-0.101	Random Treatment
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(0.148)		(0.132)	(0.143)	(0.096)	(0.098)	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-0.278**		-0.039	-0.261^{*}	-0.122	-0.139	Preference Treatment
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(0.130)		(0.128)	(0.135)	(0.091)	(0.091)	E
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-0.289**		0.030	-0.532***	-0.261^{***}	-0.254***	Ability Treatment
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	(0.094) (0.141) $(0.130)0.234^{**} -0.259^{*} -0.182$		(0.144) -0.074	(0.118) -0.493***	(0.094)-0.268***	(0.094) - 0.259^{***}	Income Treatment
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	(0.138)		(0.127)	(0.127)	(0.090)	(0.091)	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.019	0-	0.007	-0.022	-0.025*		In group - Out group sent
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(0.028))	(0.027)	(0.029)	(0.013)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.657		0.794^{**}	0.742	0.719^{**}	0.702^{**}	Constant
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(0.448) ((0.343)	(0.457)	(0.283)	(0.285)	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Yes Yes	Yes	Yes	Yes	Yes	Yes	Controls
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		262	130	132	262	262	Observations
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.079 0.161 0.134	0.055	0.131	0.200	0.094	0.081	R-squared
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				nts	oup Treatme	ciated to Gr	p-val H ₀ on equality of coefficients assoc
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.02	0.14	0.64	0.58	0.80	0.71	H_0 : Random = Preference
0.12 0.09 0.26 0.47 0.41 0.32 0.33 0.16 0.03 0.66 0.19 0.30	0.97 0.03 0.02	1.00	0.93	0.11	0.11	0.14	H_0 : Random = Ability
	0.06	0.41	0.47	0.26	0.09	0.12	H_0 : Random = Income
	0.92	0.12	0.66	0.02	0.16	0.23	H_0 : Preference = Ability
0.80 0.54 0.80	0.80 0.89 0.66	0.54	0.80	0.08	0.13	0.20	H_0 : Preference = Income
0.96 0.94 0.73 0.49 0.36 0.33	0.83	0.36	0.49	0.73	0.94	0.96	H_0 : Ability = Income

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TABLE 3—LINEAR	REGRESSION OF	DIFFERENCE	BETWEEN	AMOUNT	SENT	$_{\rm BY}$	Sender	TO .	AN]	[n vs	Out-
GROUP RECEIVER	(DISCRIMINATION) Trust Gai	ME								

Dep Var: Diff between amount sent	(1)	(2)	(3)	(4)	(5)	(6)
by Sender to In vs Out-group Receiver	All Types	Type A	Type B	All Types	Type A	Type B
Random Treatment	0.372	1.839***	-0.614	-0.188	0.550	-0.386
	(0.461)	(0.701)	(0.588)	(0.271)	(0.381)	(0.357)
Preference Treatment	0.895**	2.216***	0.031	0.062	0.717	-0.231
	(0.416)	(0.647)	(0.486)	(0.311)	(0.495)	(0.327)
Ability Treatment	-0.033	1.783^{***}	-1.447*	-0.333	0.708*	-0.904
	(0.473)	(0.611)	(0.735)	(0.326)	(0.425)	(0.556)
Income Treatment	-0.277	0.370	-0.442	-0.413	-0.027	-0.506
	(0.447)	(0.671)	(0.531)	(0.299)	(0.458)	(0.355)
Diff in Sender's belief on amount				0.427^{***}	0.356^{***}	0.562^{***}
sent back by an In vs Out-group				(0.049)	(0.053)	(0.057)
Constant	0.434	0.146	1.210	-0.258	-0.572	-0.255
	(1.042)	(1.772)	(1.292)	(0.747)	(1.309)	(0.940)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	262	132	130	262	132	130
R-squared	0.035	0.151	0.083	0.533	0.602	0.555
p -val H_0 on equality of coefficients associ	ated to Grou	p Treatmen	at			
H_0 : Random = Preference	0.23	0.55	0.32	0.43	0.68	0.71
H_0 : Random = Ability	0.42	0.92	0.32	0.68	0.65	0.41
H_0 : Random = Income	0.17	0.03	0.79	0.48	0.14	0.79
H_0 : Preference = Ability	0.04	0.40	0.06	0.31	0.98	0.26
H_0 : Preference = Income	0.01	0.00	0.40	0.17	0.14	0.49
H_0 : Ability = Income	0.61	0.01	0.19	0.83	0.10	0.52

Note: Robust standard errors clustered at individual level in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Dep Var: Difference between amount sent by a Sender to an In vs Out-group Receiver. Sample includes the Trust Game treatment only. Random, Preference, Ability and Income treatment are dummy variables indicating that the Group Label was based on randomly drawn label, painting preferences, math skill and a randomly drawn income, respectively, compared to the default Strata Group label. The regression includes controls and has no individual fixed effects. Controls include: Order as a dummy variable identifying sessions where the Dictator Game was played first and then the Trust Game, compared to the default session that faced the Trust Game and then the Dictator Game, gender, university and age.

Dep Var: Diff between amount sent	(1)	(2)	(3)
by Sender to In vs Out-group Receiver	All Types	Type A	Type B
Random Treatment	-0.346	1.073**	-1.267*
	(0.418)	(0.414)	(0.689)
Preference Treatment	0.345	1.683***	-0.718
	(0.315)	(0.466)	(0.445)
Ability Treatment	0.161	1.202**	-0.453
·	(0.302)	(0.485)	(0.344)
Income Treatment	-0.277	0.205	-0.303
	(0.333)	(0.466)	(0.428)
Constant	-0.565	-0.826	0.135
	(0.897)	(1.908)	(0.955)
Controls	Yes	Yes	Yes
Observations	262	132	130
R-squared	0.036	0.169	0.091
p -val H_0 on equality of coefficients associ	ated Group	Treatment	
H_0 : Random = Preference	0.11	0.07	0.49
H_0 : Random = Ability	0.24	0.72	0.27
H_0 : Random = Income	0.88	0.01	0.21
H_0 : Preference = Ability	0.56	0.27	0.57
H_0 : Preference = Income	0.07	0.00	0.45
H_0 : Ability = Income	0.19	0.02	0.73
Note: Bobust standard errors clustered at individual	lovel in parenth	0eoe *** n < 0	01 **

TABLE 4—LINEAR REGRESSION OF DIFFERENCE BETWEEN AMOUNT SENT BY SENDER TO AN IN VS OUT-GROUP RECEIVER (DISCRIMINATION) DICTATOR GAME

Note: Robust standard errors clustered at individual level in parentheses. *** p < 0.01, ** p < 0.05, *p < 0.1. Dep Var: Difference between amount sent by a Sender to an In vs Out-group Receiver. Sample includes only the Dictator Game treatment. Random, Preference, Ability and Income treatment are dummy variables indicating that the Group Label was based on randomly drawn label, painting preferences, math skill and a randomly drawn income, respectively, compared to the default Strata Group label. The regression includes controls and has no individual fixed effects. Controls include: Order as a dummy variable identifying sessions where the Dictator Game was played first and then the Trust Game, gender, university and age.

Dep Var: Percentage sent back by Receiver to	(1)	(2) In-Group	(3)	(4)	(5) Dut-Group	(6)
	All Types	Type A	Type B	All Types	Type A	Type B
Possible amount received	0.016***	0.022***	0.012**	0.014***	0.019***	0.011**
	(0.004)	(0.007)	(0.005)	(0.004)	(0.007)	(0.005)
Random Treatment	-0.127	-0.014	-0.215*	-0.100	-0.081	-0.112
	(0.101)	(0.167)	(0.122)	(0.101)	(0.169)	(0.121)
Preference Treatment	0.005	0.025	0.038	-0.020	-0.060	0.058
	(0.100)	(0.153)	(0.142)	(0.096)	(0.149)	(0.134)
Ability Treatment	-0.123	-0.077	-0.143	-0.147	-0.191	-0.096
	(0.095)	(0.152)	(0.126)	(0.090)	(0.143)	(0.121)
Income Treatment	-0.014	0.167	-0.169	-0.040	0.100	-0.172
	(0.100)	(0.150)	(0.139)	(0.101)	(0.161)	(0.129)
Possible amount received \times Random	0.007	-0.000	0.012	0.004	0.001	0.006
	(0.006)	(0.010)	(0.007)	(0.006)	(0.011)	(0.007)
Possible amount received \times Preference	0.003	-0.001	0.005	0.002	0.000	0.002
D 1 1	(0.006)	(0.010)	(0.007)	(0.006)	(0.010)	(0.007)
Possible amount received \times Ability	0.001	0.002	-0.001	0.003	0.005	-0.000
Desciple amount mercined of Income	(0.006)	(0.010)	(0.007)	(0.006)	(0.009)	(0.007)
Possible amount received \times Income	-0.004	-0.012 (0.010)	0.001 (0.009)	-0.004	-0.013	0.005
Constant	(0.007) 0.871^{***}	(0.010) 0.807^{**}	(0.009) 0.914^{**}	(0.007) 0.804^{***}	(0.011) 0.816^{**}	(0.008) 0.759^{**}
Constant	(0.259)	(0.380)	(0.360)	(0.240)	(0.349)	(0.351)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,130	1,560	1,570	3,130	1,560	1,570
R-squared	0.113	0.108	0.136	0.104	0.113	0.107
p -val H_0 on equality of coefficients associated to Gro			0.150	0.104	0.115	0.107
H_0 : Random = Preference	0.25	0.82	0.12	0.47	0.90	0.26
H_0 : Random = Ability	0.97	0.70	0.61	0.65	0.48	0.91
H_0 : Random = Income	0.32	0.26	0.77	0.60	0.30	0.68
H_0 : Preference = Ability	0.23	0.49	0.26	0.20	0.33	0.30
H_0 : Preference = Income	0.87	0.33	0.23	0.86	0.30	0.14
H_0 : Ability = Income	0.31	0.09	0.87	0.30	0.05	0.59
H_0 : Received x Random = Received x Preference	0.57	0.90	0.36	0.82	0.95	0.63
H_0 : Received x Random = Received x Ability	0.40	0.86	0.11	0.86	0.69	0.44
H_0 : Received x Random = Received x Income	0.11	0.27	0.25	0.29	0.22	0.92
H_0 : Received x Preference = Received x Ability	0.80	0.74	0.50	0.95	0.60	0.78
H_0 : Received x Preference = Received x Income	0.30	0.30	0.71	0.40	0.21	0.74
H_0 : Received x Ability = Received x Income	0.40	0.16	0.82	0.34	0.07	0.56

TABLE 5—LINEAR REGRESSION OF PERCENTAGE, OF AMOUNT RECEIVED, SENT BACK BY RECEIVER TO AN: IN-GROUP (COLUMNS 1-3) AND OUT-GROUP (COLUMNS 4-6) SENDER

Note: Robust standard errors clustered at individual level in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Dep Var: Columns (1)-(3) Percentage sent back by Receiver to In-Group; Columns (4)-(6) Percentage sent back by Receiver to Out-Group. Random, Preference, Ability and Income treatment are dummy variables indicating that the Group Label was based on randomly drawn label, painting preferences, math skill and a randomly drawn income, respectively, compared to the default Strata Group label. The regression includes controls and has no individual fixed effects. Controls include: Order as a dummy variable identifying sessions where the Dictator Game was played first and then the Trust Game, compared to the default session that faced the Trust Game and then the Dictator Game, gender, university and age.

TABLE 6—LINEAR REGRESSION OF DIFFERENCE BETWEEN PERCENTAGE, OF AMOUNT RECEIVED, SENT BACK BY RECEIVER TO AN IN VS OUT-GROUP SENDER

Dep Var: Diff percentage sent back by Reciever	(1)	(2)	(3)
to an In-group vs Out-group Sender	All Types	Type A	Type E
Possible amount received	0.001	0.003	0.001
i ossible alloulit received	(0.001)	(0.003)	(0.001)
Random Treatment	-0.027	0.067	-0.103*
Italidolli Heatilielli	(0.039)	(0.070)	(0.048)
Preference Treatment	0.025	0.084	-0.020
	(0.037)	(0.072)	(0.040)
Ability Treatment	0.024	0.114	-0.047
riolity from the	(0.043)	(0.078)	(0.050)
Income Treatment	0.026	0.067	0.003
niconic ricatiliciti	(0.054)	(0.096)	(0.060)
Possible amount received \times Random	0.003	-0.001	0.006**
	(0.002)	(0.001)	(0.003)
Possible amount received \times Preference	0.000	-0.002	0.003
	(0.002)	(0.002)	(0.002)
Possible amount received \times Ability	-0.002	-0.003	-0.000
	(0.002)	(0.004)	(0.003)
Possible amount received \times Income	-0.001	0.002	-0.003
	(0.003)	(0.005)	(0.003)
Constant Constant	0.068	-0.009	0.155*
	(0.090)	(0.146)	(0.086)
Controls	Yes	Yes	Yes
Observations	3,130	1,560	1,570
R-squared	0.008	0.018	0.036
p -val H_0 on equality of coefficients associated to Gro			
H_0 : Random = Preference	0.10	0.67	0.06
H_0 : Random = Ability	0.18	0.37	0.29
H_0 : Random = Income	0.29	1.00	0.09
H_0 : Preference = Ability	0.96	0.57	0.57
H_0 : Preference = Income	0.98	0.82	0.67
H_0 : Ability = Income	0.96	0.58	0.42
H_0 : Received x Random = Received x preference	0.21	0.76	0.18
H_0 : Received x Random = Received x Ability	0.07	0.53	0.04
H_0 : Received x Random = Received x Income	0.19	0.47	0.01
H_0 : Received x Preference = Received x Ability	0.38	0.70	0.21
H_0 : Received x Preference = Received x Income	0.64	0.40	0.04
H_0 : Received x Ability = Received x Income	0.79	0.31	0.40

Note: Robust standard errors clustered at individual level in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Dep Var: Difference between percentages sent back by Reciever to an In vs Out-group Sender. Random, Preference, Ability and Income treatment are dummy variables indicating that the Group Label was based on randomly drawn label, painting preferences, math skill and a randomly drawn income, respectively, compared to the default Strata Group label. The regression includes controls and has no individual fixed effects. Controls include: Order as a dummy variable identifying sessions where the Dictator Game was played first and then the Trust Game, compared to the default session that faced the Trust Game and then the Dictator Game, gender, university and age. Table 7—Linear regression of Receiver's belief on Sender choosing an In vs Out-group Receiver (Expected Segregation) by Game without CONTROLS

Don Vien. Difference in Do	control bollof on		al as mained	0.14 million		
Dep var: Dinerence in Acceiver's Dener on Senate choosing an 111 vs Our-group Acceiver Dictator Game Trust (Dictator Game	me	vs Out-Broup	Trust Game	le
	All Types	Type A	Type B	All Types	Type A	Type B
Random Treatment	0.012	0.016	0.016	0.124	-0.017	0.218
	(0.133)	(0.225)	(0.156)	(0.130)	(0.204)	(0.162)
Preference Treatment	0.123	0.004	0.329^{*}	0.159	-0.208	0.608^{***}
	(0.137)	(0.204)	(0.192)	(0.148)	(0.197)	(0.220)
Ability Treatment	-0.077	-0.012	-0.134	0.125	-0.016	0.219
	(0.129)	(0.204)	(0.172)	(0.134)	(0.184)	(0.196)
Income Treatment	-0.002	-0.105	0.109	0.087	0.030	0.098
	(0.151)	(0.248)	(0.184)	(0.142)	(0.217)	(0.183)
Constant	0.377 * * *	0.355**	0.391^{***}	0.247^{***}	0.387^{***}	0.152
	(0.091)	(0.158)	(0.110)	(0.091)	(0.137)	(0.121)
Controls	No	No	No	No	No	No
Observations	313	156	157	313	156	157
R-somared	0 007	0.002	0.040	0.005	0.013	0.060

Robust standard errors clustered at individual level in parentheses. *** p < 0.1, ** p < 0.05, * p < 0.1. De Var. Difference in Receiver's level in parentheses. belief on Sender choosing an Invs Out-group Receiver. Columns (1)-(3) corresponds to Dictator Game and (4)-(6) to the Trust Game $0.07 \\ 1.00$ $\begin{array}{c} 0.49 \\ 0.11 \\ 0.03 \end{array}$ 0.56 $\begin{array}{c} 0.36\\ 1.00\\ 0.84\\ 0.31\\ 0.28\\ 0.83\\ 0.83\end{array}$ $\begin{array}{c} 0.81\\ 0.99\\ 0.80\\ 0.82\\ 0.65\\ 0.79\\ 0.79\end{array}$ $\begin{array}{c} 0.38\\ 0.61\\ 0.03\\ 0.31\\ 0.31\\ 0.22 \end{array}$ $\begin{array}{c} 0.96\\ 0.89\\ 0.63\\ 0.93\\ 0.64\\ 0.69\end{array}$ $\begin{array}{c} 0.93 \\ 0.15 \\ 0.43 \\ 0.62 \end{array}$ 0.51 H_0 : Random = Income H_0 : Preference = Ability H_0 : Preference = Income H_0 : Random = Ability H_0 : Ability = Income

p-val H_0 on equality of coefficients associated to Group Treatment

0.43

 H_0 : Random = Preference

0.11

randomly drawn label, painting preferences, math skill and a randomly drawn income, respectively, compared to the default Strata Group Treatment. Random, Preference, Ability and Income treatment are dummy variables indicating that the Group Label was based on label. Regression doesn't include controls and has no individual fixed effects. Although not reported here, a regression including individual fixed effects leaves Trust Game Treatment dummy statistically insignificant TABLE 8-LINEAR REGRESSION OF RECEIVER'S BELIEF ON AMOUNT SENT BY AN IN VS OUT-GROUP SENDER (EXPECTED DISCRIMINATION) BY GAME WITHOUT CONTROLS

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1	
All Types Type A Type B tt 0.248 -0.404 0.723 ent 0.360 -0.723 1.570^{***} ent 0.360 -0.723 1.570^{***} 0.3333 0.4711 0.404 0.723 0.3333 0.4711 0.404 0.130 0.3333 0.4711 0.404 0.130 0.3433 0.5261 0.434 0.130 0.3433 0.5234 0.130 0.233 0.2344 0.2344 0.130 0.233 0.2344 0.2344 0.233 0.2343 0.2344 0.2344 0.233 0.253 0.2344 0.258 0.233 0.233 0.2343 0.2444 0.233 0.233 0.2343 0.2343 0.233 0.233 0.2343 0.2343 0.233 0.233 0.2343 0.2343 0.233 0.233	Trust Game	le
t 0.248 -0.404 0.723 ent 0.3200 (0.418) (0.482) 0.360 -0.723 1.570^{***} (0.333) (0.471) $(0.482)-0.350 -0.723 1.570^{***}(0.333)$ (0.471) (0.404) $(0.438)-0.359$ -0.691 $-0.203(0.343)$ (0.526) (0.434) $(0.434)(0.234) (0.774^{***} -0.130(0.234) (0.774^{***} -0.130(0.196)$ (0.288) (0.253) (0.253) $(0.233)(0.196)$ (0.288) (0.253) $(0.253)(0.1016)$ (0.288) (0.253) $(0.253)(0.1016)$ (0.288) (0.253) $(0.253)(0.1016)$ $0.0951.570.015$ 0.019 $0.0951.571.56$ $1.570.019$ $0.0951.571.56$ 0.51 $0.0190.095Income 0.76 0.51 0.010$	ypes Type A	Type B
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15 0.038	-0.052
ent $0.360 -0.723 1.570^{***}$ (0.333) (0.471) (0.404) -0.034 -0.374 (0.404) 0.359 (0.404) (0.438) -0.359 -0.691 -0.203 (0.343) (0.526) (0.434) $0.234 (0.754^{***} -0.130)$ (0.196) (0.288) (0.253) No No No No No 313 156 157 0.015 0.019 0.095 ty of coefficients associated to Group TreatmentPreference 0.76 0.51 0.10Knowledge 0.41 0.94 0.28Income 0.11 0.59 0.09	<u> </u>	(0.527)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	27 0.306	0.652
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Č	(0.417)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-0.119
$\begin{array}{cccccccc} & -0.359 & -0.691 & -0.203 \\ & (0.343) & (0.526) & (0.434) & 0.234 & 0.774^{***} & -0.130 \\ & (0.234) & 0.774^{***} & -0.130 \\ & (0.196) & (0.288) & (0.253) & 0.253 \\ & No & No & No & No \\ & No & No & No $		(0.434)
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$\begin{array}{ccccc} 0.015 & 0.019 & 0.095 \\ \hline m \ equality \ of \ coefficients \ associated \ to \ Group \ Treatment \\ dom = \ Preference & 0.76 & 0.51 & 0.10 \\ dom = \ Knowledge & 0.41 & 0.94 & 0.28 \\ dom = \ Income & 0.11 & 0.59 & 0.09 \\ \end{array}$	4 156	158
	0	0.032
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6 0.64	0.12
0.11 0.59 0.09	6 0.49	0.89
		0.40
H_0 : Preference = Knowledge 0.27 0.46 0.00 0.47		0.03
H_0 : Preference = Income 0.07 0.96 0.00 0.03	13 0.30	0.01
H_0 : Knowledge = Income 0.37 0.55 0.51 0.12	2 0.20	0.39

Group label. Regression doesn't include controls and has no individual fixed effects. Although not reported here, a regression including

individual fixed effects leaves Trust Game Treatment dummy statistically insignificant

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TABLE 9—LINEAR REGRESSION OF DIFFERENCE BETWEEN SENDER'S BELIEF (AS A PERCENTAGE) ON AMOUNT SENT BACK BY AN IN VS OUT-GROUP RECEIVER

Dep Var: Diff in Sender's belief on percentage	(1)	(2)	(3)	(4)
sent back by an In vs Out-group Receiver	All Types	All Types	Type-A	Type-B
, 0 I		51	51	
Random Treatment	0.032	0.028	-0.074	0.070
	(0.047)	(0.050)	(0.050)	(0.071)
Preference Treatment	0.039	0.028	-0.089	0.017
	(0.061)	(0.061)	(0.071)	(0.077)
Ability Treatment	0.027	0.025	-0.083	0.130
	(0.063)	(0.071)	(0.054)	(0.086)
Income Treatment	0.035	0.047	0.002	0.065
	(0.062)	(0.060)	(0.064)	(0.081)
Constant	0.002	0.259	0.204	0.113
	(0.033)	(0.158)	(0.202)	(0.163)
Controls	No	Yes	Yes	Yes
Observations	262	262	132	130
R-squared	0.002	0.054	0.432	0.333
$\overline{p\text{-val }H_0}$ on equality of coefficients associated t	o Group Tree	atment		
H_0 : Random = Preference	0.90	1.00	0.81	0.56
H_0 : Random = Ability	0.94	0.96	0.86	0.51
H_0 : Random = Income	0.97	0.76	0.22	0.95
H_0 : Preference = Ability	0.87	0.96	0.92	0.51
H_0 : Preference = Income	0.95	0.79	0.24	0.58
H_0 : Ability = Income	0.92	0.77	0.19	0.52

Robust standard errors clustered at individual level in parentheses. *** p < 0.1, ** p < 0.05, * p < 0.1. Only Observations from the Trust Game are used. Dep Var: Difference in Sender's belief(as a percentage) on amount sent back by an In vs Out-group Receiver. Preference and Ability treatment are dummy variables indicating that the Group Label was based on painting preferences and math skill, respectively, compared to the default Strata Group label. Controls include: Order is a dummy variable identifying sessions where the Dictator Game was played first and then the Trust Game, compared to the default session that faced the Trust Game and then the Dictator Game, gender, University and age.

Online Appendix

A1. Additional Figures and Tables

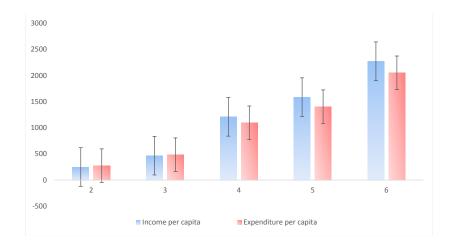


Figure . Average per capita household income by strata in 2015 COP thousands

Dep Var:	(1)	(2)	(3)	(4)	_ (5)	(6)
1 [Sender chooses same-Type Receiver]	All Types	Type A	Type B	All Types	Type A	Type B
	0.007	0.015	0.000	0.040	0.105	0.1.40
Trust Game Treatment	0.027	-0.015	0.069	0.042	-0.107	0.140
	(0.037)	(0.055)	(0.051)	(0.074)	(0.109)	(0.100)
Random Treatment	-0.119	-0.159	-0.125	-0.087	-0.296**	0.048
	(0.077)	(0.112)	(0.106)	(0.096)	(0.139)	(0.130)
Preference Treatment	-0.210***	-0.270**	-0.076	-0.134	-0.221*	-0.031
	(0.075)	(0.107)	(0.115)	(0.092)	(0.131)	(0.131)
Ability Treatment	-0.190**	-0.412^{***}	0.055	-0.247^{***}	-0.507***	0.005
	(0.076)	(0.097)	(0.107)	(0.093)	(0.118)	(0.144)
Income Treatment	-0.241^{***}	-0.379^{***}	-0.126	-0.265^{***}	-0.475^{***}	-0.102
	(0.072)	(0.097)	(0.104)	(0.092)	(0.128)	(0.127)
Trust Game x Random				-0.063	0.274	-0.348^{**}
				(0.115)	(0.171)	(0.145)
Trust Game x Preference				-0.153	-0.099	-0.090
				(0.105)	(0.150)	(0.133)
Trust Game x Ability				0.113	0.190	0.099
				(0.117)	(0.162)	(0.170)
Trust Game x Income				0.049	0.198	-0.049
				(0.118)	(0.183)	(0.151)
Constant	0.489^{**}	0.708^{**}	0.462^{*}	0.481**	0.754**	0.427
	(0.220)	(0.309)	(0.278)	(0.223)	(0.312)	(0.282)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	524	264	260	524	264	260
R-squared	0.048	0.131	0.084	0.056	0.153	0.105
				0.050	0.155	0.105
p -val H_0 on equality of coefficients asso				0.04	0.50	0 50
H_0 : DG Random = Preference	0.25	0.27	0.70	0.64	0.58	0.59
H_0 : DG Random = Ability	0.38	0.01	0.15	0.11	0.09	0.79
H_0 : DG Random = Income	0.12	0.03	1.00	0.08	0.19	0.29
H_0 : DG Preference = Ability	0.80	0.09	0.29	0.24	0.01	0.77
H_0 : DG Preference = Income	0.70	0.26	0.69	0.17	0.05	0.62
H_0 : DG Ability = Income	0.52	0.67	0.14	0.85	0.78	0.49
H_0 : TG Random = Preference				0.43	0.03	0.06
H_0 : TG Random = Ability				0.16	0.64	0.01
H_0 : TG Random = Income				0.38	0.70	0.06
H_0 : TG Preference = Ability				0.02	0.07	0.25
H_0 : TG Preference = Income				0.09	0.10	0.78
H_0 : TG Ability = Income				0.61	0.97	0.41

TABLE A1—LINEAR REGRESSION OF SENDER CHOICE OF SAME-TYPE RECEIVER FOR INTERACTION (SEG-REGATION)

Note: Robust standard errors clustered at individual level in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Dep Var: equals one when Sender chooses a Receiver of the same Type. Trust Game Treatment is a dummy variable that equals one for cases where subjects decided under the Trust Game compared to the default Dictator Game. Strata, Preference and Ability treatment are dummy variables indicating that the Group Label was based on socioeconomic strata, painting preferences and math skill, respectively, compared to the default Random Group label. The regression includes controls and has no individual fixed effects. Controls include: Order as a dummy variable identifying sessions where the Dictator Game was played first and then the Trust Game, compared to the default session that faced the Trust Game and then the Dictator Game, Sender beliefs on amount sent back by Receiver of Type A and Type B is the value a Sender though a Receiver of each Type would sent him back when deciding under the Trust Game; gender, university and age. Although not reported here, a regression including individual fixed effects leaves Trust Game Treatment dummy statistically insignificant.

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	(1)	(2)	(3) (4) Dictator Game	$^{(4)}$ Game	(q)	(9)	(2)	(8)	(9) Trust	(9) (10) Trust Game	(11)	(12)
1 [Sender chooses same-Type Receiver]	L IIA	Types	Type A	e A	Type	e B	L IIA	l Types	Typ	Type A	Type	e B
Random Treatment	-0.084	-0.076	-0.339^{**}	-0.322^{**}	0.118 (0.129)	0.099 (0.129)	-0.147	-0.136	-0.065	-0.017	-0.230^{*}	-0.262^{**}
Preference Treatment	-0.137	-0.115	-0.273^{**}	$-0.253^{(0.121)}$	-0.065	-0.066	-0.291^{***}	-0.260***	-0.372^{***}	-0.316^{**}	-0.155	-0.156
Ability Treatment	-0.252***	(0.090) -0.254***	(0.123)	-0.531^{***}	(0.01.0) 0.011	(101.0) -0.029	-0.139	-0.142 -0.142	-0.357^{***}	$(0.124) - 0.311^{**}$	(161.0)	(0.043 (0.043
Income Treatment	(0.092) -0.268***	(0.092) -0.276***	(0.117) -0.487***	(0.123) -0.484***	(0.136)-0.101	(0.143) -0.116	(0.095) - 0.219^{**}	(0.092) - 0.230^{**}	(0.130) - 0.289^{**}	(0.134) - 0.279^{**}	(0.126) -0.150	(0.128) -0.174
	(0.091)	(0.090)	(0.126)	(0.126)	(0.130)	(0.130)	(0.094)	(0.094)	(0.138)	(0.137)	(0.132)	(0.132)
In group - Out group sent		-0.026^{**} (0.013)		-0.010 (0.019)		-0.025 (0.019)		-0.035^{***} (0.012)		-0.026 (0.018)		-0.042^{**} (0.016)
Constant	0.563^{***}	0.568^{***}	0.714^{***}	0.705^{***}	0.465^{***}	0.488^{***}	0.606^{***}	0.612^{***}	0.607^{***}	0.581^{***}	0.605^{***}	0.644^{***}
	(0.059)	(0.058)	(0.087)	(060.0)	(0.078)	(0.079)	(0.059)	(0.059)	(0.094)	(0.095)	(0.076)	(0.077)
Controls	No	No	No	No	No	No	No	No	No	No	No	No
Observations	262	262	132	132	130	130	262	262	132	132	130	130
R-squared	0.044	0.058	0.151	0.153	0.020	0.033	0.044	0.071	0.104	0.119	0.055	0.091
Random = Preference	0.59	0.69	0.62	0.61	0.23	0.27	0.14	0.20	0.02	0.02	0.62	0.48
Random = Ability	0.10	0.08	0.10	0.10	0.48	0.41	0.94	0.95	0.04	0.03	0.02	0.03
Random = Income	0.07	0.05	0.28	0.25	0.14	0.15	0.49	0.36	0.13	0.08	0.59	0.55
Preference = Ability	0.24	0.16	0.02	0.02	0.63	0.82	0.12	0.22	0.90	0.97	0.08	0.19
Preference = Income	0.18	0.10	0.09	0.07	0.81	0.74	0.47	0.76	0.51	0.77	0.98	0.91
Ability = Income	0.87	0.83	0.61	0.70	0.46	0.58	0.45	0.39	0.62	0.82	0.08	0.14

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Game sample and (4)-(6) to the 'Irust Game sample. Random, Prelerence, Ability and Income treatment are dummy variables indicating that the Group Label was based on randomly drawn label, painting preterences, math skill and a randomly drawn income, respectively, compared to the default Strata Group label. In Group- Out Group sent is the Difference between amount sent by Sender to In-Group minus Out-Group Receiver. The regression does not include additional controls and has no individual fixed effects.

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Dep Var: Diff between amount sent	(1)	(2)	(3)	(4)	(5)	(6)
by Sender to In vs Out-group Receiver	All Types	Type A	Type B	All Types	Type A	Type B
Trust Game Treatmnet	$0.267^{*}$	$0.409^{*}$	0.123	$0.792^{**}$	$0.833^{*}$	$0.750^{*}$
	(0.162)	(0.239)	(0.221)	(0.309)	(0.484)	(0.399)
Random Treatment	0.013	$1.456^{***}$	-0.940*	-0.355	$1.039^{**}$	-1.269*
	(0.363)	(0.369)	(0.563)	(0.416)	(0.415)	(0.695)
Preference Treatment	$0.620^{**}$	$1.950^{***}$	-0.344	0.352	$1.715^{***}$	-0.697
	(0.284)	(0.399)	(0.353)	(0.310)	(0.471)	(0.439)
Ability Treatment	0.064	$1.492^{***}$	-0.950**	0.159	$1.201^{**}$	-0.428
	(0.274)	(0.337)	(0.417)	(0.299)	(0.503)	(0.340)
Income Treatment	-0.277	0.288	-0.372	-0.272	0.197	-0.280
	(0.291)	(0.360)	(0.347)	(0.330)	(0.472)	(0.414)
Trust Game x Random				0.735	0.833	0.657
				(0.479)	(0.874)	(0.557)
Trust Game x Preference				0.536	0.471	0.707
				(0.457)	(0.805)	(0.610)
Trust Game x Ability				-0.190	0.583	-1.045
				(0.572)	(0.896)	(0.803)
Trust Game x Income Treatment				-0.011	0.182	-0.184
				(0.522)	(0.928)	(0.623)
Constant	-0.199	-0.544	0.611	-0.094	-0.340	0.626
	(0.727)	(1.255)	(0.906)	(0.740)	(1.301)	(0.919)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	524	264	260	524	264	260
R-squared	0.029	0.153	0.065	0.036	0.158	0.083
$\frac{1}{p-val}H_0$ on equality of coefficients associ	ated Grown '	Treatment				
$H_0$ : DG Random = Preference	0.10	0.20	0.36	0.10	0.03	0.48
$H_0: \text{DG Random} = \text{Ability}$	0.89	0.91	0.99	0.23	0.66	0.26
$H_0$ : DG Random = Income	0.45	0.00	0.36	0.85	0.01	0.20
$H_0: DG$ Preference = Ability	0.05	0.19	0.21	0.54	0.24	0.57
$H_0: DG Preference = Income$	0.00	0.00	0.95	0.07	0.00	0.44
$H_0$ : DG Ability = Income	0.24	0.00	0.21	0.19	0.02	0.74
$H_0$ : TG Random = Preference	··= -			0.63	0.54	0.94
$H_0$ : TG Random = Ability				0.09	0.73	0.04
$H_0$ : TG Random = Income				0.12	0.39	0.18
$H_0$ : TG Preference = Ability				0.16	0.86	0.04
$H_0$ : TG Preference = Income				0.24	0.67	0.19
$H_0$ : TG Ability = Income				0.76	0.61	0.32
Note: Robust standard arrang alustand at individual		ale ale ale		05 * m < 0.1 D		

TABLE A3—LINEAR REGRESSION OF DIFFERENCE BETWEEN AMOUNT SENT BY SENDER TO AN IN VS OUT-GROUP RECEIVER (DISCRIMINATION)

Note: Robust standard errors clustered at individual level in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Dep Var: Difference between amount sent by a Sender to an In vs Out-group Receiver. Trust Game Treatment is a dummy variable that equals one for cases where subjects decided under the Trust Game compared to the default Dictator Game. Strata, Preference and Ability treatment are dummy variables indicating that the Group Label was based on socioeconomic strata, painting preferences and math skill, respectively, compared to the default Random Group label. The regression includes controls and has no individual fixed effects. Controls include: Order as a dummy variable identifying sessions where the Dictator Game was played first and then the Trust Game, compared to the default session that faced the Trust Game and then the Dictator Game, gender, university and age.

TABLE A4—LINEAR REGRESSION OF RECEIVER'S BELIEF ON SENDER CHOOSING AN IN VS OUT-GROUP
Receiver (Expected Segregation) and on amount sent by an IN vs Out-group Sender (Expected
DISCRIMINATION)

Dep Var:	(1)	(2) Dif	(3) ference in Rec	(4) ceiver's belief	(5) f on	(6)
Dep var.	Sender choosi	ng an In vs Ou	t-group Receiver	amount sent h	oy an In vs Ou	it-group Send
	All Types	Type A	Type B	All Types	Type A	Type B
Trust Game	-0.130	0.032	-0.239*	0.078	-0.516	0.478
	(0.109)	(0.178)	(0.138)	(0.289)	(0.467)	(0.363)
Random Treatment	-0.004	0.013	-0.025	0.327	-0.284	0.753
	(0.135)	(0.227)	(0.164)	(0.331)	(0.423)	(0.503)
Preference Treatment	0.116	-0.001	0.297	0.418	-0.693	1.600***
	(0.138)	(0.206)	(0.194)	(0.339)	(0.465)	(0.425)
Ability Treatment	-0.107	0.007	-0.236	0.009	-0.333	0.096
·	(0.132)	(0.202)	(0.179)	(0.307)	(0.388)	(0.485)
Income Treatment	-0.018	-0.101	0.050	-0.360	-0.662	-0.249
	(0.153)	(0.250)	(0.183)	(0.344)	(0.516)	(0.444)
Trust Game $\times$ Random	0.111	-0.032	0.202	-0.263	0.442	-0.775
	(0.134)	(0.208)	(0.179)	(0.456)	(0.602)	(0.705)
Trust Game $\times$ Preference	0.036	-0.212	0.279	0.066	1.029	-0.912*
	(0.144)	(0.216)	(0.202)	(0.513)	(0.801)	(0.551)
Trust Game $\times$ Ability	0.201	-0.004	0.353*	0.179	0.802	-0.250
5	(0.138)	(0.194)	(0.207)	(0.435)	(0.707)	(0.530)
Trust Game $\times$ Income	0.088	0.134	-0.011	-0.036	0.433	-0.312
	(0.170)	(0.259)	(0.222)	(0.391)	(0.633)	(0.482)
Constant	0.241	0.637	-0.200	-1.090	-1.233	-0.898
	(0.433)	(0.652)	(0.522)	(0.841)	(1.212)	(1.116)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	626	312	314	627	312	315
R-squared R-squared	0.011	0.010	0.083	0.025	0.045	0.074
<i>p</i> -val $H_0$ on equality of coefficient	s associated	to Group T	reatment			
$H_0$ : DG Random = Preference	0.40	0.95	0.10	0.81	0.41	0.10
$H_0$ : DG Random = Ability	0.44	0.98	0.22	0.35	0.91	0.23
$H_0$ : DG Random = Income	0.93	0.66	0.68	0.07	0.49	0.07
$H_0$ : DG Preference = Ability	0.11	0.97	0.01	0.25	0.44	0.00
$H_0$ : DG Preference = Income	0.40	0.68	0.25	0.05	0.96	0.00
$H_0$ : DG Ability = Income	0.56	0.65	0.14	0.31	0.52	0.51
$H_0$ : TG Random = Preference	0.54	0.27	0.68	0.55	0.44	0.85
$H_0$ : TG Random = Ability	0.43	0.83	0.43	0.36	0.58	0.47
$H_0$ : TG Random = Income	0.88	0.44	0.31	0.61	0.99	0.50
$H_0$ : TG Preference = Ability	0.19	0.15	0.73	0.83	0.79	0.24
$H_0$ : TG Preference = Income	0.75	0.12	0.20	0.84	0.44	0.25
$H_0$ : TG Ability = Income	0.47	0.50	0.12	0.61	0.59	0.90

Robust standard errors clustered at individual level in parentheses. *** p < 0.1, ** p < 0.05, * p < 0.1. Dep Var: Columns (1)-(3) Difference in Receiver's belief on Sender choosing an In vs Out-group Receiver; (4)-(6) Difference in Receiver's belief on amount sent by an In vs Out-group Sender. Trust Game Treatment is a dummy variable that equals one for cases where subjects decided under the Trust Game compared to the default Dictator Game. Preference and Ability treatment are dummy variables indicating that the Group Label was based on painting preferences and math skill, respectively, compared to the default Strata Group label. Trust Game×Preference and Trust Game×Ability is the interaction between both indicator variables. Regression doesn't include controls and has no individual fixed effects. Although not reported here, a regression including individual fixed effects leaves Trust Game Treatment dummy statistically insignificant

1	r's beliet on	Sender cho	osing an In	Dep Var: Difference in Receiver's belief on Sender choosing an In vs Out-group Receiver	Receiver	
	D	Dictator Game	ne		Trust Game	ne
	All Types	Type A	Type B	All Types	Type A	Type B
Random Treatment	-0.012	0.021	-0.052	0.115	-0.027	0.204
	(0.137)	(0.225)	(0.172)	(0.130)	(0.208)	(0.162)
Preference Treatment	0.109	-0.005	0.279	0.158	-0.209	$0.595^{***}$
	(0.140)	(0.204)	(0.197)	(0.146)	(0.198)	(0.225)
Ability Treatment	-0.109	0.012	-0.269	0.097	-0.002	0.150
	(0.133)	(0.196)	(0.181)	(0.138)	(0.192)	(0.211)
Income Treatment	-0.016	-0.104	0.057	0.068	0.036	0.032
	(0.154)	(0.249)	(0.181)	(0.144)	(0.217)	(0.189)
Constant	0.317	0.275	0.310	0.034	1.032	-0.949
	(0.456)	(0.712)	(0.567)	(0.505)	(0.713)	(0.639)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	313	156	157	313	156	157
R-squared	0.012	0.015	0.098	0.012	0.021	0.086
$p$ -val $H_0$ on equality of coefficients associated to Group	ints associa	ted to Grou	p Treatment			
$H_0$ : Random = Preference	0.40	0.90	0.09	0.77	0.39	0.08
$H_0$ : Random = Ability	0.47	0.97	0.20	0.89	0.90	0.78
$H_0$ : Random = Income	0.98	0.63	0.54	0.74	0.78	0.33
$H_0$ : Preference = Ability	0.12	0.93	0.01	0.69	0.29	0.08
$H_0$ : Preference = Income	0.44	0.69	0.29	0.57	0.26	0.02
$H_0$ : Ability = Income	0.54	0.62	0.08	0.85	0.86	0.58
Robust standard errors clustered at individual level in parentheses. *** $p < 0.1$ , ** $p < 0.05$ , * $p < 0.1$ . Dep Var: Difference in Receiver's belief on Sender choosing an In vs Out-group Receiver. Columns (1)-(3) corresponds to the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the provest of the Dictator Game sample and (4)-(6) to the Dictator Game sample and	vidual level in group Receiver	parentheses. * . Columns (1)-	** $p < 0.1$ , ** $p$ (3) corresponds	< 0.05, * $p < 0.1to the Dictator C$	. Dep Var: Diff Jame sample ar	erence in Receiver's id (4)-(6) to the
rus: come rreament. rannoui, rrecence; romy and moute recontent ac quantify or notes introcting that the Group zooel w based on randomly drawn label, painting preferences, math skill and a randomly drawn income, respectively, compared to the default	z preferences. 1	math skill and	a randomly drav	vn income, respec	caung una une ctively, compare	d to the default
Strata Group label. Regression includes controls and has no individual fixed effects. Controls: Order as a dummy variable identifying	controls and b	us no individu	al fixed effects. (	Controls: Order a	a dummv var	iable identifving
						,

TABLE A5-LINEAR REGRESSION OF RECEIVER'S BELIEF ON SENDER CHOOSING AN IN VS OUT-GROUP RECEIVER (EXPECTED SEGREGATION) BY GAME

$\begin{array}{c c} & \text{Dictator Game} \\ \hline All Types Type A \\ \hline All Types Type A \\ \hline all (0.328) & (0.422) \\ and (0.328) & (0.433) \\ and (0.333) & (0.433) \\ and (0.333) & (0.333) \\ and (0.333) & (0.333) \\ and (0.333) & (0.333) \\ and (0.348) & (0.515) \\ and (0.348) & (0.333) \\ and (0.348) & (0.348) \\ and (0.348) & (0.515) \\ and $	All Types 0.080 0.498 0.498 0.498 0.498 0.498 0.498 0.498 0.493 0.172 0.397 0.297 0.397 0.365 (1.165) (1.165)	Trust Game Type A 0.195 (0.524) 0.374	ae Type B
All Types         Type         A         Type B           Random Treatment $0.311$ $-0.322$ $0.776$ Reference Treatment $0.311$ $-0.322$ $0.776$ Preference Treatment $0.403$ $-0.731$ $1.576***$ Ability Treatment $0.403$ $0.453$ $0.497$ Ability Treatment $0.333$ $0.453$ $0.421$ Income Treatment $0.308$ $0.333$ $0.449$ Income Treatment $0.348$ $0.515$ $0.449$ Constant $0.348$ $0.515$ $0.449$ Constant $0.033$ $0.515$ $0.449$ Constant $0.031$ $0.515$ $0.449$ Constant $0.033$ $0.515$ $0.449$ Constant $0.031$ $0.515$ $0.449$ Constant $0.033$ $0.515$ $0.449$ Constant $0.031$ $0.515$ $0.449$ Constant $0.031$ $0.507$ $0.171$ Seavations $0.0333$ <th>All Types 0.080 0.498 0.498 0.498 0.172 0.172 0.172 0.397 0.397 0.365 -2.065* (1.165)</th> <th>Type A 0.195 (0.524) 0.374</th> <th>Type B</th>	All Types 0.080 0.498 0.498 0.498 0.172 0.172 0.172 0.397 0.397 0.365 -2.065* (1.165)	Type A 0.195 (0.524) 0.374	Type B
t 0.311 -0.322 ent 0.328) $(0.422)$ ent 0.403 -0.731 (0.333) $(0.423)(0.333)$ $(0.433)(0.333)$ $(0.433)(0.333)$ $(0.515)(0.308)$ $(0.393)(0.348)$ $(0.515)(0.348)$ $(0.515)(0.348)$ $(0.515)(0.348)$ $(0.515)(0.348)$ $(0.515)(0.348)$ $(0.515)(0.310)$ $(1.297)Yes Yes313$ $1560.020$ $0.046$	$\begin{array}{c} 0.080\\ (0.389)\\ 0.498\\ (0.404)\\ 0.172\\ 0.172\\ 0.397)\\ -0.421\\ (0.365)\\ -2.065*\\ (1.165)\end{array}$	$\begin{array}{c} 0.195 \ (0.524) \ 0.374 \end{array}$	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} (0.389)\\ 0.498\\ 0.404)\\ 0.172\\ 0.172\\ 0.397)\\ -0.421\\ (0.365)\\ -2.065*\\ (1.165)\end{array}$	(0.524) 0.374	-0.045
ent $0.403$ $-0.731$ (0.333) $(0.453)0.025$ $-0.367(0.308)$ $(0.333)-0.336$ $-0.648(0.348)$ $(0.515)-0.348)$ $(0.515)-0.035$ $-0.232(1.009)$ $(1.297)Yes Yes313$ $1560.020$ $0.046$	$\begin{array}{c} 0.498\\ 0.404)\\ 0.172\\ 0.172\\ 0.397)\\ -0.421\\ -0.421\\ (0.365)\\ -2.065*\\ (1.165)\end{array}$	0.374	(0.583)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} (0.404)\\ 0.172\\ 0.397)\\ -0.421\\ (0.365)\\ -2.065*\\ (1.165)\end{array}$	-	0.715
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 0.172\\ (0.397)\\ -0.421\\ (0.365)\\ -2.065^{*}\\ (1.165)\end{array}$	(0.621)	(0.449)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(0.397) -0.421 (0.365) -2.065* (1.165)	0.502	-0.245
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-0.421 (0.365) $-2.065^{*}$ (1.165)	(0.620)	(0.512)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(0.365) -2.065* (1.165)	-0.244	-0.615
$\begin{array}{c cccccc} -0.035 & -0.232 \\ (1.009) & (1.297) \\ \text{Yes} & \text{Yes} \\ \text{Nes} & 313 & 156 \\ 0.020 & 0.046 \end{array}$	$-2.065^{\circ}$ (1.165)	(0.499)	(0.533)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(1.165)	-2.751	-1.495
$\begin{array}{cccc} Yes & Yes \\ yes & 13 & 156 \\ 0.020 & 0.046 \\ 0.020 & 0.046 \end{array}$	~	(1.757)	(1.411)
ns 313 156 0.020 0.046	Yes	Yes	Yes
0.020 0.046	314	156	158
The second se	0.034	0.061	0.062
$p$ -val $H_0$ on equality of coefficients associated to Group Ireatment			
$H_0$ : Random = Preference 0.81 0.41 0.12	0.29	0.75	0.10
$H_0$ : Random = Ability 0.40 0.91 0.27	0.81	0.59	0.68
$H_0$ : Random = Income 0.09 0.54 0.08	0.17	0.33	0.32
$H_0$ : Preference = Ability 0.29 0.43 0.00	0.42	0.85	0.01
$H_0$ : Preference = Income 0.06 0.88 0.00	0.02	0.26	0.00
$H_0$ : Ability = Income 0.32 0.58 0.47	0.10	0.16	0.46
Robust standard errors clustered at individual level in parentheses. *** $p < 0.1$ , ** $p < 0.5$ , * $p < 0.1$ . Dep Var: Difference in Receiver' belief on amount sent by an In vs Out-group Sender. Columns (1)-(3) corresponds to the Dictator Game sample and (4)-(6) to the Trust	< 0.05, * p < 0.1 ne Dictator Gam	. Dep Var: Diffe ie sample and (	$p<0.1,\ ^{**}$ $p<0.05,\ ^*$ $p<0.1.$ Dep Var: Difference in Receiver's rresponds to the Dictator Game sample and (4)-(6) to the Trust
Game Treatment. Random, Preference, Ability and Income treatment are dumny variables indicating that the Group Label was based on randomly drawn label mainting proferences math skill and a randomly drawn income respectively command to the default Strata	ables indicating me_resnectively	that the Group compared to th	. Label was based a default Strata
Group label. Regression includes controls and has no individual fixed effects. Controls: Order as a dummy variable identifying sessions	: Order as a dur	mmy variable id	entifying sessions
	default session th	hat faced the Tr	ust Game and then

TABLE A6-LINEAR REGRESSION OF RECEIVER'S BELIEF ON AMOUNT SENT BY AN IN VS OUT-GROUP SENDER (EXPECTED DISCRIMINATION) BY GAME

# A2. Experimental Instructions

### **INSTRUCCIONES- Segunda Parte**

En esta sección, a cada individuo le será asignado uno de dos roles: Emisor o Receptor. Esta asignación será hecha de manera tal que cerca de la mitad de las personas presentes en la sala sean Emisores y la otra mitad Receptores.

De acuerdo al rol asignado:

- 1. Cada sujeto tomará unas **decisiones individuales** y responderá unas preguntas sobre sus **expectativas** sobre el resultado de la actividad.
- 2. De acuerdo a esas decisiones individuales se determinará el emparejamiento entre las personas presentes en esta sala.
- 3. Posteriormente se calculará el pago para cada individuo.

A continuación explicamos cada una de estas etapas.

# 1. Decisiones

Cada uno de los dos Roles (Emisor y Receptor) se diferencia en el tipo de dotación personal recibida y en las decisiones que debe tomar. La persona cuyo rol es Emisor estará dotada con 20 (veinte) Unidades Monetarias Experimentales (UME). La Persona cuyo rol es Receptor tendrá una dotación inicial de 0 (cero) UME.

### Situación General

El Emisor tendrá que decidir cuánto de su dotación personal inicial quisiera darle a un Receptor. Cada UME enviada al Receptor será multiplicada por **3** (tres). Por tanto, si el Emisor decide enviar 2 UME al Receptor, el Receptor recibirá 6 (seis) UME. Si por el contrario enviara 10 (diez) UME, el Receptor recibirá 30 (treinta) UME. Por su parte, el Receptor no realiza ninguna decisión. Es decir, el Receptor recibe el monto triplicado de lo enviado por el Emisor y esta parte de la actividad termina. El Emisor tendrá que decidir cuánto de su dotación personal inicial quisiera darle a un Receptor del Grupo A y cuánto a un Receptor del Grupo B. El Emisor puede enviar cualquier monto entre 0 y 20, restringido a múltiplos de dos. Es decir, puede enviar 0 o 2, o 4, o 6, así hasta 20 UME. Cada una de estas dos decisiones del Emisor es independiente. Por tanto, el monto total sobre el cual se debe tomar cada una es la dotación personal inicial, 20 UME. Luego, será emparejado únicamente con un receptor y el computador implementará la decisión tomada por el Emisor de acuerdo con el grupo del receptor.

El Emisor podrá elegir con cuál Grupo de Receptores preferiría ser emparejado. Luego el computador decidirá si toma en cuenta o no esa elección, asignando un 60% de probabilidad a implementar la elección del Emisor y un 40% de probabilidad a escoger emparejar el Emisor con un Receptor elegido al azar entre todos los receptores en la sala.

Por su parte, el Receptor elegido por el Emisor o por el computador recibe el monto triplicado.

Nota: Las instrucciones sobre sus expectativas aparecerán en su pantalla una vez usted haya terminado de decidir de acuerdo al rol que le ha sido asignado.

### 2. Emparejamiento

El emparejamiento entre un Emisor y un Receptor dependerá de las preferencias del Emisor sobre el Grupo del Receptor con el cuál le gustaría ser emparejado, y del azar, puesto que dichas preferencias sólo se tendrán en cuenta con un 60% de probabilidad. Es decir, con una probabilidad de 60% (equivalente a sacar un número del 1 al 6 en el lanzamiento de un dado de 10 caras) la elección del Emisor será tenida en cuenta para el emparejamiento. Esto es, si el Emisor elige a un Receptor perteneciente al Grupo A, el computador buscará a un integrante de dicho Grupo A que se encuentre en esta misma sala y ambos sujetos serán emparejados. En cambio, con una probabilidad del 40% (equivalente a sacar un número de del 7 al 10 en el lanzamiento de un dado de 10 caras) el computador obviará la decisión del Emisor sobre con quién preferiría emparejarse y en

cambio elegirá aleatoriamente a un Emisor en esta misma sala sin importar si este pertenece al Grupo A o al Grupo B.

En todo caso, dicho emparejamiento será anónimo. Es decir, en ningún momento las partes podrán identificarse. La única información que se compartirá entre las partes emparejadas es el Grupo, definido en la primera parte del experimento, de cada persona involucrada en la interacción.

Es de notar que todo Emisor tendrá siempre una pareja elegida entre aquellos individuos presentes en la sala. En cambio, existe la posibilidad de que un Receptor no sea emparejado. Esto puede suceder ya que su emparejamiento con un Receptor en la sala depende de ser elegido por alguno de ellos o bien del azar.

# 3. Pagos

Además de los 10.000 pesos por participar en la actividad, si esta es la sección que elige aleatoriamente el computador para determinar sus pagos, estos se calcularán de la siguiente manera:

Si es Emisor su pago será:

(Dotación inicial) - (Monto enviado a Receptor)

Si es Receptor y fue emparejado, su pago será:

3 x (Monto enviado por el Emisor)

Si es Receptor y NO fue emparejado, su pago será CERO.

#### **INSTRUCCIONES-** Tercera Parte

Esta sección es igual a la sección anterior, la única diferencia es que en esta parte, el Receptor tendrá la posibilidad de devolver parte de las UME recibidas al Emisor.

En esta sección usted permanece en el mismo rol que se le ha sido asignado en la sección anterior.

De acuerdo a su rol:

- Cada sujeto tomará unas decisiones individuales y responderá unas preguntas sobre sus expectativas sobre el resultado de la actividad.
- De acuerdo a esas decisiones individuales se determinará el emparejamiento entre las personas presentes en esta sala.
- 3. Posteriormente se calculará el pago para cada individuo.

A continuación explicamos cada una de estas etapas.

# 1. Decisiones

Cada uno de los dos Roles (Emisor y Receptor) se diferencia en el tipo de dotación personal recibida y en las decisiones que debe tomar. La persona cuyo rol es Emisor estará dotada con 20 (veinte) Unidades Monetarias Experimentales (UME). La Persona cuyo rol es Receptor tendrá una dotación inicial de 0 (cero) UME.

# Situación General

El Emisor tendrá que decidir cuánto de su dotación personal inicial quisiera darle a un Receptor. Cada UME enviada al Receptor será multiplicada por **3** (tres). Por tanto, si el Emisor decide enviar 2 UME al Receptor, el Receptor recibirá 6 (seis) UME. Si por el contrario enviara 10 (diez) UME, el Receptor recibirá 30 (treinta) UME. A su vez, el Receptor debe decidir cuántas UME de las recibidas quiere devolver al Emisor.

El Emisor tendrá que decidir cuánto de su dotación personal inicial quisiera darle a un Receptor del Grupo A y cuánto a un Receptor del Grupo B. El Emisor puede enviar cualquier monto entre 0 y 20, restringido a múltiplos de dos. Es decir, puede enviar 0 o 2, o 4, o 6, así hasta 20 UME. Cada una de estas dos decisiones del Emisor es independiente. Por tanto, el monto total sobre el cual se debe tomar cada una es la dotación personal inicial, 20 UME. Luego, será emparejado únicamente con un Receptor y el computador implementará la decisión tomada por el Emisor de acuerdo con el Grupo del Receptor.

El Emisor podrá elegir con cuál Grupo de Receptores preferiría ser emparejado. Luego el computador decidirá si toma en cuenta o no esa elección, asignando un 60% de probabilidad a implementar la elección del Emisor y un 40% de probabilidad a escoger emparejar el Emisor con un Receptor elegido al azar entre todos los receptores en la sala.

Por su parte, el Receptor deberá decidir cuánto quisiera devolverle a un Emisor para cada monto recibido posible. Como el Emisor puede enviar cualquier monto entre 0 y 20 en múltiplos de 2, es decir que puede enviar 11 montos posibles, entonces el Receptor deberá decidir cuánto desea devolver al Emisor para cada uno de estos 11 casos posibles. Además, esta decisión la deberá tomar para el caso en que sea emparejado con un Emisor del Grupo A y para el caso en que sea emparejado con un Emisor B.

Nota: Las instrucciones sobre sus expectativas aparecerán en su pantalla una vez usted haya terminado de decidir de acuerdo al rol que le ha sido asignado.

# 2. Emparejamiento

El emparejamiento entre un Emisor y un Receptor dependerá de las preferencias del Emisor sobre el Grupo del Receptor con el cuál le gustaría ser emparejado, y del azar, puesto que dichas preferencias sólo se tendrán en cuenta con un 60% de probabilidad. Es decir, con una probabilidad de 60% (equivalente a sacar un número del 1 al 6 en el lanzamiento de un dado de 10 caras) la elección del Emisor será tenida en cuenta para el emparejamiento. Esto es, si el Emisor elige a un Receptor perteneciente al Grupo A, el computador buscará a un integrante de dicho Grupo A que se encuentre en esta misma sala y ambos sujetos serán

emparejados. En cambio, con una probabilidad del 40% (equivalente a sacar un número de del 7 al 10 en el lanzamiento de un dado de 10 caras) el computador obviará la decisión del Emisor sobre con quién preferiría emparejarse y en cambio elegirá aleatoriamente a un Emisor en esta misma sala sin importar si este pertenece al Grupo A o al Grupo B.

En todo caso, dicho emparejamiento será anónimo. Es decir, en ningún momento las partes podrán identificarse. La única información que se compartirá entre las partes emparejadas es el Grupo, definido en la primera parte del experimento, de cada persona involucrada en la interacción.

Es de notar que todo Emisor tendrá siempre una pareja elegida entre aquellos individuos presentes en la sala. En cambio, existe la posibilidad de que un Receptor no sea emparejado. Esto puede suceder ya que su emparejamiento con un Receptor en la sala depende de ser elegido por alguno de ellos o bien del azar.

# 3. Pagos

Además de los 10.000 pesos por participar en la actividad, si esta es la sección que elige aleatoriamente el computador para determinar sus pagos, estos se calcularán de la siguiente manera:

Si es Emisor su pago será:

(Dotación inicial) - (Monto enviado a Receptor) + (Monto devuelto por Receptor)

Si es Receptor y fue emparejado, su pago será:

3 x (Monto enviado por el Emisor) - (Monto devuelto al Emisor)

Si es Receptor y NO fue emparejado, su pago será CERO.