Gender Discrimination and Social Identity: Evidence from Urban Pakistan[1]

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Abstract

This paper investigates how gender discrimination depends on the social identities of interacting parties. We use data from economic decision-making experiments to identify gender discrimination and randomly matched 2,836 male and female students pursuing bachelors-equivalent degrees in three different types of institutions that represent distinct identities within the Pakistani society. Our main finding is that gender discrimination is not uniform in intensity and nature across educated Pakistani society and varies as a function of the social identity of both individuals who interact. While we find no evidence of higher socio-economic status men discriminating against women, men of lower socio-economic status and higher religiosity tend to discriminate against women –but only women from lower socio-economic status who are closest to them in social distance. Moreover, this discrimination seems to be largely taste-based.

JEL Classification: C72; C91; J16; Z10

Keywords: trust; discrimination; expectations; identity; gender; other-regarding preferences.

1. Introduction

Gender-unequal treatment in developing countries – be it in educational attainment, labor market earnings, or asset ownership–is well documented (e.g., Sen 2001; Duflo 2012). Beyond the implication for women's well-being, this unequal treatment also has ramifications for the economic development of these countries. For example, the International Monetary Fund reports that reducing the gender wage gap in the Middle East, North Africa, Afghanistan and Pakistan region to levels twice as large as those found in emerging markets could generate extra GDP of $1 trillion in a decade to the region.[1] In this paper, we use economic decision-making experiments from Pakistan to investigate (i) whether and how young educated Pakistani women of heterogeneous backgrounds are discriminated against by socially disparate groups of highly-educated young men, (ii) evaluate the nature of this discrimination (taste-based versus statistical), and (iii) analyze how the nature of the discrimination varies by the social status of both genders.

We focus on Pakistani society because gender inequality is particularly pronounced in South Asia. Klasen (1994) and Sen (2001) have highlighted Pakistan as a country where this imbalance is the starkest, with a population sex ratio most recently estimated to be 108.5 males for every 100 females (Pakistan Census Organization 1998). In the labor market, women aged 20 to 30 with a college degree earn on average 28% less than their male counterparts.[2] Moreover, gender discrimination in Pakistan appears paradoxical, with women having on the one hand prominent political leadership (e.g., Pakistan's former Prime Minister Benazir Bhutto was the first woman to lead an Islamic state) but facing severe discrimination on the other hand: for example, an estimated 13 percent of women are "missing," the gender gap in literacy is increasing, the rate of violence against women is alarming, and the female labor force participation rate is 15%, which is low compared to other countries with similar GDP per capita (Klasen and Wink 2003; Coleman 2004; Human Right Commission of Pakistan 2008).

To investigate the interplay between gender discrimination and social identity, we recruited 2,836 students pursuing bachelors-equivalent degrees, from three types of educational institutions in urban Pakistan that represent three very different identities in terms of socioeconomic background, religiosity and exposure to Western ideas. Our focus on interactions of inter-elite groups, defined as college-level students, is of particular interest because individuals belonging to these groups are likely to

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[1] Source: The Express Tribune from Nov. 12 2013, available at http://tribune.com.pk/story/630894/imf-urges-pakistan-mena-central-asia-cut-gender-gap-to-boost-gdp/.

[2] Source: Authors' calculations based on the 2007-08 and 2008-09 Pakistan Labour Force Survey.

become policy makers or be influential in their communities. We use the student's institutional affiliation as a measure of his/her social identity. Our definition of social status is therefore based on real groups rather than induced groups (as, for example, in Fershtman and Gneezy 2001; Goette et al. 2006; Haimanti and Dugar 2014). The first type of institution consists of male-only Madrassas (religious seminaries). The Madrassa curriculum uses ancient religious texts and does not impart any secular teaching. The second type of institution—Islamic Universities—teach a Liberal Arts curriculum combined with Islamic teachings in gender-segregated campuses. The third type are Liberal Universities which are similar to American universities— campuses are mixed, classes are taught in English and students are widely exposed to Western ideas. While Madrassas tend to be free and hence cater primarily to the poor, Islamic Universities are usually public and are therefore accessible to low and middle income groups. Liberal Universities, on the other hand, charge expensive tuition and thus serve the wealthy segment of the population. On the socioeconomic status (SES) scale, students at Liberal Universities rank on average highest, followed by Islamic University students, with Madrassa students being the lowest on this scale. In addition, these three groups also differ in their levels of religiosity. Self-reported religiosity (on a scale from 0 to 10) is 9.2 among the Madrassa students, 6.3 among male Islamic University students and 5.3 among the male Liberal University students.

To investigate gender discrimination, we study a particular aspect of social and economic interactions: trust. Our focus on trust stems from a large literature showing that trust enhances efficiency and promotes economic growth, financial development and production efficiency (e.g., Knack and Keefer 1997; La Porta et al. 1997; Guiso et al. 2004, Özer et al. 2014). Moreover, trust is particularly important in developing countries where, because of the failure of the state, informal and traditional institutions matter considerably more (Ostrom 1990; Fukuyama 1995). In fact, evidence points to economic development being highly correlated with the ability to trust and cooperate with strangers (Buchan et al. 2009). We measure trust by randomly matching students with each other (based on gender and institutional affiliation—our measure of their social identity) to participate in a trust game (Berg et al. 1995). In the trust game, a player (sender) can decide to send ("invest") money to a partner (receiver). If the sender invests the money, the experimenter triples that amount and gives it to the receiver, who is asked to choose whether (s)he transfers any money back to the sender. Systematic differences in the decision to invest the money based on the gender of the partner would imply gender discrimination. This type of game captures important behavioral aspects of social and economic interactions, including those taking place in the labor market, and is therefore well suited to investigate gender discrimination.

Effective policies to address discrimination cannot be crafted without understanding the *nature* of discrimination, i.e., whether it is motivated by preferences (taste-based discrimination) or statistical inference on payoff-relevant information (statistical discrimination). For this purpose, we use a multiple-game design. We also ask respondents to participate in other experiments of decision-making that measure expected trustworthiness (expectations in the trust game) and unconditional other-regarding behavior such as altruism or inequity aversion (dictator game). In the dictator game, the sender is asked to split an amount of money between himself and another player, who takes no further action. Therefore, systematic differences in the amount sent to males and females in the dictator game measure taste-based discrimination (Becker 1957). In the trust game, expectations about how much participants expect back on average from their partner allow us to measure whether the discrimination is statistical.

Our main finding is that the intensity and the nature of gender discrimination depend on the social identity of *both* individuals in the match. Liberal University male students, who are (on average) the wealthiest, least religious and most exposed to Western ideas, do not discriminate against women of any social identity. Madrassa students, who come from more humble backgrounds, and are more religious and relatively unexposed to Western ideas, tend to discriminate against Islamic University (that is, middle SES) women but not Liberal University (high SES) women in the trust game. Moreover, this discrimination is entirely taste-based. However, although Madrassa students treat men relatively better than women, because they give and trust more than other male groups, they actually treat women the best in absolute terms. Finally, Islamic University male students, who fare in the middle in terms of wealth and religiosity, have a less uniform behavior: they favor Liberal University (high SES) females but they do not favor Islamic University females (middle SES), compared to their respective male counterparts, in the trust game. Importantly, while we cannot rule out taste-based discrimination playing some role, the differential behavior by gender of Islamic University students is primarily attributable to statistical discrimination.

These findings are in contrast to what we find in Delavande and Zafar (2015) in which we use the same experiments and the same institutions but focus on male-to-male interactions: the behavior of our male respondents matched with male partners does *not* differ by the institution of their match, i.e., social identity is irrelevant in the male-male interactions. In particular, there is no evidence of in- or out-group bias for madrassa students interacting with males from other segments of the Pakistani society. Moreover, counter to common stereotypes (as well as those of our sample), male Madrassa students are

found to exhibit the most other-regarding and trusting behavior. So in this context, social identity matters only in the male-female interactions.[3]

It has been argued that pushing for policies favoring economic development, such as education policy, will lead to an improvement in women's rights and status (Doepke and Tertilt 2009, Duflo 2012). Our findings, based on a subject pool where all respondents are pursuing bachelors-equivalent degrees (and hence belong to an elite group in the society), that higher socioeconomic status females (Liberal University females) are not discriminated against and are even favored in some instances by males, and that women of (relatively) lower socioeconomic status (Islamic University females) are discriminated against by certain groups of men suggests that educating women may not be a sufficient condition for women's position to improve, as their social identities continue to matter. This further suggests that social policies aimed at improving women's under-representation in the political sphere or the labor market through gender quotas (e.g., Beaman et al. 2009, Beath et al. 2013, Bertrand et al. 2014) may need to account for the interaction of gender with social identity, and possibly allocate gender quotas based on the socio-economic background of women.

Our paper complements the large body of empirical evidence on gender unequal treatment in South Asia (e.g. Qian 2008; Duflo 2012), with a specific focus on the role of the social identities of the interacting parties, for which, as discussed above, the evidence is mixed for within-household interactions, and scant beyond intra-household interactions. Our paper also relates to a large literature on gender discrimination in the labor market and other market interactions, mostly in developed countries (see Altonji and Blank 1999, and List and Rasul 2011 for a review). Audit studies or sex-blind hiring (e.g., Ayres and Siegelman 1995; Neumark 1996; Goldin and Rouse 2000) and estimates of differential marginal productivity (Hellerstein et al. 1999) have been used to identify gender discrimination. Due to lack of data, however, it is generally difficult to identify the nature of this discrimination. Recent studies using either field or lab experiments have been able to directly address the nature of gender discrimination by using a multi-game design, which is able to measure both preferences and beliefs or to manipulate the market under study (e.g., Fershtman and Gneezy 2001; List 2004; Slonim and Guillen 2010; Castillo et al. 2013). Freshtman and Gneezy (2001), whose study is the closest in approach to that used in this paper, match students with typical ethnic names in Israel and find strong evidence that

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[3] Similar asymmetries have been found in other contexts. For example, in the US, Newton and Simutin (2014) find that older and male CEOs are more likely to set higher wages for male than females officers, while there is little evidence that female CEOs set wages according to the gender of the officer.

Ashkenazic women (who tend to have higher economic status) are less trusted than Ashkenazic men, while Eastern women (who tend to have lower economic status) are more trusted then Eastern men. This suggests, unlike in the Pakistani context, that discrimination against females is reduced, and even reversed, when they belong to lower socio-economic status groups.

As part of the large body of empirical evidence on gender unequal treatment in South Asia, there has been some investigation into the relationship between gender discrimination and socio-economic status or social class of the households. The resulting empirical evidence is however rather mixed. In some cases, higher economic status households are found to discriminate less against girls: Rose (1999) finds that landholdings increase the survival of girls relative to boys, and Behrman (1988) and Alderman and Gertler (1997) find that households with more income treat boys and girls more equally in terms of allocation of nutrients and medical care, respectively. However, Miller (1997) and Basu (1989) find that higher socio-economic status households (as measured by caste or income) discriminate more against girls, especially in the northwestern plains of Asia where the society is patrilineal. Similarly, Bhalotra and Cochrane (2010) show that prenatal sex detection and female foeticide are greater in relatively wealthy and educated families. Our paper contributes to the understanding of the relationship between social status and gender discrimination in South Asia beyond the one found within the household, and in a set-up relevant to labor markets.

Finally, our paper is related to the sociological theory of intersectionality (Crenshaw 1991; Collins 2000). This theory argues that women experience discrimination in varying levels of intensity, which is determined by intersectional systems of society (e.g. race, ethnicity, social class). In line with this theory, studies have found that labor market discrimination and stereotyping tends to be worse for women who fall into the bottom of the social hierarchy in terms of race (Browne and Misra 2003). Our findings that higher socioeconomic status women in Pakistan are less discriminated against are consistent with this theory.

This paper is organized as follows. We provide some background information on the institutions we surveyed and the sample in Section 2. Section 3 outlines a simple theoretical model that provides a guide for the empirical analysis. Section 4 explains the experimental design, and Section 5 presents the empirical results. Section 6 discusses some potential mechanisms for the findings while Section 7 presents concluding remarks.

2. Background

2.1. The educational institutions

Higher education in Pakistan takes place in universities and in Madrassas (religious seminaries). The enrollment rate for students aged 17-23 is 5.1%. A third of the students enrolled at university are females (Pakistan Education Statistics 2010-11). There are now 138 universities in the country recognized by the Higher Education Commission, of which 75 are public and 63 private (Higher Education Commission Pakistan 2012). There remains considerable disagreement over the extent of the penetration of Madrassas because few are registered. However, Ahmad (2004) estimates that there are about 6,000 secondary and higher Madrassas, educating about 600,000 students.

We conducted experiments in four male Madrassas, one public Islamic University, and two private Liberal Universities located in Islamabad/Rawalpindi and Lahore between May and October 2010.[4] Below we describe each of those institutions.

Madrassas base their studies on texts dating to before the 14th century and teach classes in Urdu (Fair 2006; Rahman 2008). The majority of Madrassas do not impart any secular or vocational training and it has been argued, albeit with scant evidence, that they deliberately educate their students in narrow worldviews and rejection of Western ideas, and do not train them sufficiently for the real world (Ali 2009). Claims made by policy makers and in the popular press suggest that they may be responsible for fostering militancy and Islamic extremism (see discussion in Delavande and Zafar 2015). Since Madrassas generally tend to be free, they attract students from modest backgrounds (Rahman 2004). Advanced study within the Madrassas produces an Alim (Islamic scholar and/or teacher). Most students who graduate from a Madrassa go on to work in the religious sector.

Islamic Universities provide a liberal arts curriculum combined with Islamic teachings and courses. For example, economics is taught with a focus on Islamic principles of finance. These universities have segregated campuses for males and females, and classes are taught in Arabic or English. They tend to be public and, therefore, are accessible to low and middle income groups. Moreover, a relatively large proportion of students at such universities have typically studied for some time at Madrassas before enrolling. Females account for about 40% of the student body at Islamic University.

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[4] There are few female Madrassas, and the proportion of females pursuing a Bachelor-equivalent degree (the relevant population for our purposes) is even smaller. Since large sample sizes are needed for the randomizations in the experiment, we did not include them in our sample.

Liberal Universities are similar to American colleges. They provide a liberal arts curriculum, teach classes in English, and have gender-mixed campuses. Tuition at such institutions tends to be very expensive so they cater to wealthy students. Females account for about 25 to 30% of the student body at the two institutions we surveyed.[5]

2.2. Descriptive statistics of the sample

Data collection was conducted by the Survey Center (SC) affiliated with the Islamic University. The institutions in our sample are amongst the five largest and well-regarded institutions in their respective category in each city. Among all the institutions we contacted, one university and one Madrassa refused to participate. We sampled the senior-most students in the 4 Madrassas since they are similar in age to university students, and are pursuing degrees that are equivalent to Bachelor degrees. Though participation was voluntary, almost everyone in the Madrassas participated in the study. At the other institutions, a random sample of students (unconditional on gender) was selected to participate based on a listing of students provided by the registrar's office. The average response rate at the universities was about 70%. To signal credibility of the study to the students, members of the staff of the institution at which data was being collected were also hired for the data collection. Overall 2,836 students participated in the experiments, of which 489 were female. The ethnic composition of students is quite similar across the institutions.

Table 1 presents the characteristics of the participants by group (educational affiliation) and gender. For comparison purpose, the table also shows the characteristics of a random sample of respondents from Islamabad/Rawalpindi and Lahore (*City* sample) obtained from a separate survey we conducted in 2010. The average age of students varies between 21 and 22.

Table 1 highlights the differences across the three types of institutions.[6] The sorting in terms of observables into these institutions is very drastic but as expected. As we move across the columns from the Liberal University (denoted by HighSES) towards the Islamic University (denoted as MidSES) and the Madrassas in Table 1, the average socioeconomic characteristics deteriorate. For example, the monthly parental income of male and female students at HighSES is about 7 times that of students in the

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[5] In Delavande and Zafar (2015), we separate the two Liberal Universities we interviewed. In the present context, we find very similar behaviour toward females so keep them as one group to simplify the presentation of results.

[6] Since we find no significant differences within the Madrassas either in terms of demographic characteristics or in their experimental behavior, we combine the four Madrassas into one group to keep the tables and analysis simple.

Madrassas, and father's years of education is almost twice as many. If we compare the students to the City sample (last two columns of the table), we see that Madrassa students seem to come from less well-off backgrounds than the general populations in the cities, while all other institutions fare better in terms of most indicators of wealth. Females at HighSES and MidSES tend to come from slightly more privileged backgrounds than their male counterparts: on average, they have higher parental income, parental education and asset ownership. This difference is more marked at MidSES.

Students from the various groups also show different levels of self-reported religiosity and the number of prayers per day. Students were asked to rate how religious they considered themselves to be on a scale from 0 (not religious at all) to 10 (very religious). Religiosity increases as we move across columns of Table 1; the average religiosity is 5.6-5.7 for HighSES males and females compared to 9.2 in the Madrassas. The former also pray much less frequently each day (2-2.4 times vs. 4.9).

Finally, students are exposed to different types of information and different peer groups. While only 23% of the Madrassa students report watching BBC and CNN, at least 59% of the students of the other groups report watching it. Within HighSES, female students tend to watch those international news channels more than male students. Also, the proportion of male respondents who have ever attended a religious institution on a full-time or part-time basis increases from 35% for HighSES students to 45% for MidSES students. In addition, while fathers of only 11% (5%) of male (female) students attending HighSES spent more than 2 years studying in a Madrassa on either a part-time or full-time basis, the corresponding proportion for Madrassa students is 20%. This suggests that the various groups in our setting interact with and have exposure to each other at some level, but that the extent of exposure varies by institution.

In short, the table shows that there is substantial sorting on observables into institutions. Students attending these three types of institutions clearly represent very different social and religious identities within the Pakistani society. At one end of the spectrum we have young males from poorer backgrounds who attend religious schools. At the other end of the spectrum we have wealthy students exposed to Western-type of education and high exposure to international media.

2.3. Earnings expectations of female students

We speculate that women's social identity influences the discrimination they may suffer, in particular in the labor market. As a motivating fact for our experiments, we look at women and men's expected earnings at age 30. These expectations were elicited as follows: "*Consider the situation where*

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you graduate from [current institution]. Look ahead to when you will be 30 years old and suppose that you are working then. Think about the kinds of jobs that will be available to you. How much do you think you could earn per month on average at the age of 30 at these jobs?"

We find that at HighSES, women and men expect very similar age 30 earnings on average (Rs. 46,694 for females and Rs. 45,310 for males, with a p-value of 0.524 when testing equality of means), while at MidSES, females expect significantly lower earnings than men on average (Rs. 37,136 for females versus Rs. 44,079 for males, with a with a p-value of less than 0.001 when testing equality of means). Note that these expectations are conditional on working. Therefore, these patterns suggest that females graduating from MidSES are, on average, more likely to expect less favorable outcomes in the labor market (relative to their male counterparts) than females graduating from HighSES. This is consistent with these MidSES females expecting to be discriminated in the labor market, and if these expectations are predictive of actual future realizations (as has been shown in the literature, for example, by Dominitz, 1998), then this also means that they will actually be discriminated in the labor market. We will assess whether the experimental results are consistent with this.

3. Theoretical Framework

In this section, we present a simple stylized model of behavior in the trust and dictator games with identity (which we call social background below and refers to the institution a student belongs to) to illustrate the mechanisms that can lead to observed choices in these games. Incorporating identity directly into the utility function was introduced into economic analysis by Akerlof and Kranton (2000).

Consider a player with social background s and gender g. His utility $u_{sg}(.,.)$ is assumed to depend on his own payoff and that of his partner of characteristics (s',g'). Several papers have modeled the motivation for other-regarding behavior, i.e. deriving utility from others' payoff. It could take the form of altruism (Andreoni and Miller, 2002), warm glow (Andreoni, 1990), inequity-aversion (Fehr and Schmidt, 1999; Bolton and Ockenfels, 2000) or maximin preferences (Charness and Rabin, 2002). We are agnostic here about these underlying motivations.

For simplicity, we assume that the player's utility is linear in both his payoff and in a strictly concave function $\beta_{s,g,s',g'}(.)$ of his partner's payoff ($\beta'_{s,g,s',g'}(.) > 0$ and $\beta''_{s,g,s',g'}(.) < 0$), that equals zero if the partner has zero payoff ($\beta_{s,g,s',g'}(0)=0$). The function $\beta_{s,g,s',g'}(.)$ depends on the characteristics of both players and captures how much a player with characteristics (s,g) values the payoff of a partner

with characteristics (*s',g'*). We further assume that the utility is separable in both own and partner's payoffs, to keep the illustration simple. The hypotheses that we test are similar if they are relaxed. So if *a* and *b* are the payoffs of the player and his partner respectively, the utility the player gets is given by:

$$u_{sg}(a, b) = a + \beta_{s,g,s',g'}(b).$$

With this set-up, we present the decision rule for each game.

3.1. Trust game

In the trust game, the player must decide whether to invest the amount P in his partner, in which case the partner may return some amount $r \in [0,3P]$ back to him, or keep everything. We assume that the player formulates subjective expectations about how much the partner will send back, and that this expectation $E_{s,g,s',g'}(.)$ depends on the gender and social background of both the player and the partner. The player's expected utility is thus given by:

$$\text{Max}\{P, E_{s,g,s',g'}[r + \beta_{s,g,s',g'}(3P - r)]\}$$
$$= \text{Max}\left\{P, E_{s,g,s',g'}(r) + \beta_{s,g,s',g'}\left(3P - E_{s,g,s',g'}(r)\right)\right\}.$$

The player will choose to invest in the trust game ($i_{s,g,s',g'} = 1$) if:

$$P < E_{s,g,s',g'}(r) + \beta_{s,g,s',g'}\left(3P - E_{s,g,s',g'}(r)\right).$$

Note that the utility function of the player depends on both the player's expectations about how much the partner will send back as well as the function $\beta(.)$. Consider two players with characteristics (*s,g*), both matched with a partner of background *s'*, but of different genders. We may observe the same decision rule, but the students could still have different expectations $E_{s,g,s',m}(r)$ and $E_{s,g,s',f}(r)$ and different functions $\beta_{s,g,s',m}(.)$ and $\beta_{s,g,s',f}(.)$. In other words, observing no gender discrimination in the trust game does not rule out that expectations and tastes $\beta_{s,g,s',g'}(.)$ do not differ by gender. Similarly, if we do observe different investment decisions in the trust game, we cannot conclude whether the nature of the discrimination is taste-based (i.e., different βs) and/or whether it is statistical, i.e., different expectations about returns. However, using other games can allow us to tease this out. We discuss them below.

3.2. Dictator game

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In the dictator game, the player must decide how to allocate an amount A between himself and his partner. His decision problem of how much to allocate to the partner (that is, d) is therefore:

$$\text{Max}_d\{A - d + \beta_{s,g,s',g'}(d)\} \text{ s.t. } d \in [0, A].$$

We have a corner solution where the player allocates zero to the other player if the function $\beta_{s,g,s',g'}(d) < 1 \; \forall \; d \in [0, A]$, and A if the function is greater than 1 over the range of d. Otherwise, the first-order-condition gives the optimal amount $d^{s,g,s',g'}$ as follows:

$$\beta'_{s,g,s',g'}(d^{s,g,s',g'}) = 1.$$

Consider two players with characteristics (s,g), both matched with a partner of background s', but of different genders. Observing different allocations to the partners of different genders means that there is gender discrimination. Moreover, this discrimination is taste-based.

3.3. Expectations

Respondents are asked to guess the average amount that students from the partner's institution chose to send back to their matched partner from the respondent's institution in the trust game. They should report: $E_{s,g,s',g'}(r)$. Consider two players with characteristics (s,g), both matched with a partner of background s', but of different genders. Different reports of expectations by gender would mean that there is gender discrimination; moreover, this discrimination is statistical.

4. Experimental Design

We now discuss the experimental design.

Procedure: The experiments were conducted at the students' institutions in sessions of 50-100 students in a classroom large enough to ensure respondent anonymity. The instructions were given to each participant, read aloud by the experimenters and projected on a computer projector. Respondents played the games on a paper questionnaire and were matched with an actual partner ex-post, so they did not learn the identity or action of their partner while playing the game. The questionnaire was administered in Urdu at all places except one of LUs where it was conducted in English, since students there are more used to reading and writing in English.[7] Moreover, the questionnaires were identical across all the institutions up to the section leading into the experiments.

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[7] The translation was supervised by Zafar who speaks English and Urdu fluently to ensure that nothing was lost in translation.

Games: Students were asked to play the following games:

- *Trust game:* Player A (the sender) is given a fixed amount of money (Rs. 300) and decides whether to keep it or invest it by giving it to Player B (the receiver). If given to Player B, the experimenter triples that amount and gives it to Player B who is asked to choose whether to transfer any money back to Player A (which can be any amount between zero and Rs. 900). The efficient outcome is for Player A to invest the money by transferring it to Player B, while the subgame perfect equilibrium is to keep the money. Lack of trust towards the partner may lead to inefficiencies. This is a binary version of the "trust game" introduced by Berg et al.(1995)—it is binary in the sense that Player A can choose to send either nothing or the entire amount. In our setting, all respondents played the role of Player A and the role of a Player B (but as we explain below, students were compensated at most for one of these roles chosen at random). When put in the role of Player B, we use the strategy method and ask the respondent to report the amount he/she would like to send back conditional on Player A deciding to invest.

- *Dictator game:* This is a one-stage game in which Player A (the sender) decides on the division of a fixed amount of money (Rs 400) between himself/herself and Player B (the receiver). Player B does not make any choice. Again, respondents play the role of both Player A as well as Player B.[8]

- *Expectations:* Respondents were asked to guess the average amount that students from their partner's institution (that is, institution of the student in the role of Player B) chose to send back to their matched partners – Player A (who were all students at the respondent's own institution) – in the trust game. Note that when students are asked to provide their expectations, they are asked about the average payoffs for a pair of partners that is identical in terms of gender and institution of the match. Also expectations were elicited after the respondent had made the decision in the games and were incentivized.[9]

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[8] We chose a binary trust game and a continuous dictator game in order to make the differences in the decisions salient to the respondents. Since our sample pool is quite different from standard experimental settings and we were concerned about the literacy of the respondents and their ability to understand the decisions, we kept the games as simple and as distinct as possible from each other.

[9] While we want to measure the respondent's expectation of the amount his partner sends back in the trust game, we ask the respondent to guess the average amount sent back by all students of the same gender as the match from the partner's institution (who are matched with students in the respondent's institution). This is because, asking the respondent for his expectation of the amount sent back by his partner, may prompt the respondent to report expectations that rationalize his own investment decision in the trust game. We believe our approach mitigates this concern of ex-post rationalization, and is hence superior. The exact question wording was as follows: "*If you, the sender, sent Rs. 300 in this game, the responder would*

Treatment: The treatment in this experiment is the randomization of **institution** and **gender** of the matched player. Each student was randomly matched with *one* of the five following partners: a male student from a Liberal University, a female student from a Liberal University, a male student from an Islamic university, a female student from an Islamic university, or a male Madrassa student. The description of the match (with the exact name of the match's educational institution and the partner's gender) was already printed on the paper questionnaire received by each participant, so students were not aware that other participants in their session could possibly be matched with partners of different gender and educational institutions.[10] Each student was informed that they would play all the games with the *same* partner. Students were given a short description of the institution they were matched with but since the selected institutions are among the most well-known institutions, most students would have some prior knowledge of them. We therefore have a *between*-subject design. Each student was matched with only one partner of a given gender and institution, and could not have known if other students were matched with someone from a different institution/gender (and what other potential institutions may have been involved). In terms of implementation, the pairing was carried out after the experiment, with replacement, and the match was one-way. This means that multiple students could possibly have been matched with the same partner, and the partner with whom the student was matched may or may not have been matched with the same student. Table 2 presents the sample sizes for each institution, and for the various matches.[11] Because we use a one-way match, the sum in a given row does not need to match the sum in the corresponding column.

Payoffs: Respondents received financial compensation for their participation in the survey and the games. Each received a show-up fee of Rs. 200 given on the day of the session. Some tasks were then randomly chosen for determining the additional payoffs. One of the four roles (sender or receiver in the

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receive Rs. 900 and had to decide how much to return to the sender and how much to keep for themself. Now we ask you to guess the average amount (out of Rs. 900) that students of gender (where gender = {male, female}) from "institution X" chose to return to students from your institution. Your reward will depend on your accuracy. You would receive Rs. 50 for choosing the correct interval, and zero otherwise. The interval that contains the average amount is: ...".

[10] As mentioned in Section 2.1, we had two participating liberal universities. Students belonging to those and matched with someone from a liberal university were matched with someone of their own university.

[11] Students at Madrassas who were assigned a "Male Madrassa treatment" were matched either with a student at their own Madrassa or a different Madrassa (but one that belonged to the same school of thought). Because we do not find any systematic differences between the two in our analysis, the two groups are combined. Since it combines two treatments, more Madrassa students are matched with Madrassa students than with HighSES and MidSES students in Table 2.

trust game, sender or receiver in the dictator game) was randomly selected for compensation, along with one of the four expectations questions (Rs. 50 if the respondent correctly identified the interval where the actual average lies). Before making their decisions, students were informed that they would receive compensation for one of the four roles, chosen at random. Once the sessions were completed, we randomly matched students with a particular partner from the institution/gender indicated in their questionnaire (and who also had to be matched with a partner of those characteristics) and determined the payoffs. Subjects could pick up their compensation starting about one week after the completion of the experiment. Respondents earned an average of Rs. 600 from the games. The overall average compensation of Rs. 800 corresponds to about USD 10. This is the equivalent of about 3 meals out at inexpensive restaurants, or a monthly pass of local transport. The 2009 per capita GNI at purchasing power parity in Pakistan was $2,710, compared to $46,730 in the US. This means the average compensation of USD 10 corresponds to 0.4% of the GNI per capita. The US equivalent would be approximately USD 170. Therefore, the stakes involved in the experiments were large.

5. Experimental results

Our main goals are to (i) identify whether there is gender discrimination in the trust game, i.e., whether players' behavior differs by the gender of the partner, (ii) analyze the nature (statistical versus taste-based) of this potential discrimination, and (iii) investigate whether potentially discriminatory behavior varies according to the institutions of both the primary player and of the institution of his/her partner. The theoretical model in Section 3 highlights the challenge we face in the identification of discrimination. We therefore start by establishing whether there is any discrimination in the trust game, and then move on to analyze the behavior in the dictator game and the expectations data.

Because participants may treat partners from different institutions differently for reasons unrelated to gender, our test for gender discrimination will always be done by comparing how males and females from the *same* institution are treated. This comparison relies on the assumption that our respondents have the same beliefs about the distribution of observable characteristics of males and females at a *given* institution. Instead, for example, if individuals believed that MidSES females were from higher-income households (compared to MidSES males) and other-regarding preferences were declining in partner's SES background, then the propensity to send less to MidSES females (than corresponding males) would be statistical discrimination. As shown in Section 2.2, at both MidSES and

HighSES, females tend to come from slightly more advantaged backgrounds than their male counterparts. We believe it is quite unlikely that students are aware of these small differences (the gender difference in characteristics within the institutions was a surprise to us and our survey team), but we cannot rule this out entirely. Our focus is on gender discrimination by males, so in what follows, players are always males, while partners can be males or females.

5.1. Gender discrimination

We begin by testing the following hypothesis:

Hypothesis 1: There is no gender discrimination in the trust game, conditional on partners' institutions.

Table 3 presents the overall proportion of senders who chose to send the Rs. 300 in the trust game, conditional on the institution and gender of both the sender and the responder. In order to test for gender discrimination, we investigate whether investment behavior in the trust game varies by gender of the partner, keeping institution of the partner and gender and institution of the primary player fixed. For respondents belonging to a row institution, testing this hypothesis means testing for differences in the investment behavior when matched with HighSES males versus HighSES females, and for testing for differences when matched with MidSES males versus MidSES females. As a robustness check, we also test for differences when aggregating HighSES and MidSES males versus HighSES and MidSES females.

Table 3 provides two important results. First, HighSES males do not discriminate in their behavior according to the gender of the matched partner, even after taking into consideration the institution of the match. This is demonstrated by the fact that none of the two sets of pairwise hypothesis tests that we conduct (Wilcoxon rank-sum and t-test) between having a match with a male versus female of a given institution type is statistically significant at conventional levels of significance for HighSES males. Second, holding the institution of the matched partner fixed, we notice statistically significant differences by gender in the behavior of MidSES and Madrassa students, which reveals important interaction between gender and institutions. MidSES male students treat MidSES males and MidSES females similarly, but treat HighSES females *more* favorably that they treat HighSES males: 55% of the MidSES males sent money when matched with an HighSES male compared to 68% when matched to an HighSES female (the difference is statistically different from zero at 10%). We also find that Madrassa

students treat HighSES males and HighSES females similarly, but treat MidSES females *less* favorably than MidSES males: 80% of the Madrassas students sent money when matched with an MidSES male compared to only 68% when matched to an MidSES female (the difference is statistically significant at 1%).

The first two columns of Appendix Table A1 analyze behavior in the trust game using a linear regression framework. The dependent variable is a dummy for whether a participant sent money in the trust game. In the first column, the independent variables include dummies for every potential pair of partners. For example, the first dummy variable, *HighSESplayer ×MidSESpartner*, equals 1 for a pair where the player is a HighSES male and the partner is from MidSES. Similarly, the second dummy, *HighSESplayer × (MidSESpartner × Female)*, equals 1 for a pair where the player is a HighSES male and the partner is from MidSES and is female. The average behavior of a HighSES male student matched with a male MidSES student is captured by the first variable, while the average behavior of a HighSES male student matched with a female MidSES student is reflected by the sum of these two variables. By comparing these two coefficients, we can test for whether MidSES females are treated differently than MidSES males by HighSES males. We do find similar results as in Table 3: Madrassa males are found to treat MidSES females less favorably than they treat MidSES males; the coefficient *Madrassaplayer × (MidSESpartner × female)* indicates that they are 13.4 percentage points less likely to send money to MidSES females in the trust game (relative to when matched with MidSES males) and the coefficient is statistically significant at 5%. We also see that MidSES males treat HighSES females more favorably than HighSES males (coefficient statistically significant at 1%), while they treat MidSES males and females similarly. Notably, in column 2 when we add demographic characteristics as controls, we see that the coefficient of the dummies for the pairs are essentially unchanged.

5.2. Nature of Discrimination

These results highlight differences in how males invest (i.e., whether they send money to the matched partner) in the trust game depending on the gender of their partners, holding institutions fixed. As highlighted in the theoretical framework, there are several dimensions of preferences and beliefs that may motivate a subject to invest in the trust game. One motivation could be unconditional other-regarding preferences. Another one could be beliefs about trustworthiness of the partner (Dufwenberg

and Gneezy 2000; Cox 2004; Ashraf et al. 2006). Finally, risk preferences may play a role in the decision (Karlan 2005; Schecter 2007). [12]

Empirically, determining which one has the largest weight in influencing behavior is important to understand the nature of players' discriminatory behavior. This is of interest to academics, but of particular relevance to policy-makers since effective policies and legislation to deal with gender discrimination can be crafted only if the nature of discrimination is understood. For example, while HighSES males exhibit similar investment behavior in the trust game towards males and females conditional on match institution, as we explain in Section 3, their action could still be consistent with different levels of trust and of unconditional other-regarding behavior towards males and females.. Results from the trust game alone do not allow the identification of the relative roles of those dimensions (Cox 2004). Our multiple-game experimental design, however, allows us to separately measure unconditional other-regarding behavior and expected trustworthiness, and therefore to inform us about the nature of discrimination, under the assumption that the only difference between men and women within an institution is gender. In the dictator game, the only motive for sending money to the partner is preferences (unconditional other-regarding behavior). We can thus learn more about taste-based discrimination by analyzing how students play that game. In addition, the elicitation of expected average amount sent back by each match group to students from their own institution gives us a measure of expected trustworthiness towards each group, and therefore gives us an indication of statistical discrimination.

We test the following hypothesis:

Hypothesis 2: Conditional on the partner's institution, expectations of the partner's trustworthiness do not differ by the partner's gender.

We collected data on respondents' expectations regarding the average amount expected from the matched group. Note that respondents choose an interval for the average expected amount and do not report a point estimate for the exact average. The mean and median amounts presented in Table 4 are those obtained by allocating as average expected amount the middle of the chosen interval. To show the

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[12] Students were randomly assigned a treatment (i.e., match type). Therefore, differences in risk preferences cannot explain any of the results (across match types). We have qualitative measures of risk preferences from the respondents, and they are in fact similar within each treatment conditional on the student's institution.

distribution of expectations, we also present the proportion of respondents who expect to receive more than Rs. 200 and more than Rs. 300. Those are obtained directly from respondents' answers without any assumption. Again, we focus on the differences in expectations by gender keeping the institution of the match fixed.

Three points from this table are of note. First, HighSES students believe males and females within an institution to be equally trustworthy: none of the three sets of pairwise hypothesis tests that we conduct— t-test, Wilcoxon rank-sum, and Kolmogorov-Smirnov—between having a match with a male versus female of a given institution type (HighSES male versus HighSES female; MidSES male versus MidSES female) are statistically significant at conventional levels of significance for HighSES males.[13] Second, we again note some differences by gender of the matched partner for MidSES students. MidSES males believe MidSES females to be *less* trustworthy than MidSES males (difference in the mean is statistically significant from zero at 10%), while they expect HighSES females to be *more* trustworthy than HighSES males (the proportion expected to send back more than Rs. 200 is statistically significant at 10%). Recall that they were more likely to send money to HighSES females in the trust game, so positive statistical discrimination may explain this. Note, however, that there was no difference in their investment behavior by gender for partners from MidSES. Third, Madrassa students expect females to be more trustworthy than males. In particular, Madrassa students expect females to return about Rs. 25 more on average than their male counterparts (this difference is statistically significant at 5% when aggregating HighSES and MidSES), and assign a 8 percentage-point higher probability to females sending back more than Rs. 300 than males (this difference is statistically significant at 10% for both MidSES and HighSES). Similar qualitative results are shown in a regression framework with and without demographic controls in columns (3) and (4) of Table A1. Recall that Madrassa students were less likely to send money to MidSES females in the trust game. The results presented in Table 4 suggest that statistical discrimination cannot explain their differential behavior by gender in the trust game. In fact, keeping unconditional other-regarding behavior constant, given that Madrassa students expect

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[13] The p-values for these tests are not reported in the table. Instead, they are denoted by asterisks on the mean, median, and sample size, respectively, in the relevant female column. The t-test is a parametric test for the equality of the means (under the assumption that the variable is normally distributed); the Wilcoxon rank-sum test is a non-parametric analog to the t-test, and is a rank sum test: The Wilcoxon test ranks all of the observations from both groups and then sums the ranks from one of the groups which is compared with the expected rank sum. It is possible for groups to have different rank sums (and hence the test of equality being rejected) and yet have equal or nearly equal medians. Finally, the Kolmogorov-Smirnov test is a non-parametric test for the equality of continuous distributions.

females to be more trustworthy than males, they should be investing *more* in the trust game when matched with females than with males.

Overall, this would suggest that the gender discrimination observed in the trust game by Madrassa students is unlikely to be statistical and most likely taste-based. Behavior in the dictator game—where the main motivation for sending money to the matched partner is unconditional other-regarding behavior—allows us to investigate this further. We next test the following hypothesis:

Hypothesis 3: Conditional on the partner's institution, the amount sent in the dictator game does not differ by the partner's gender.

Table 5 shows the average amounts sent in the dictator game for all pairs of partners. Madrassa students send lower amounts on average to females than males. The differences appear not to be statistically significant when we consider each institution separately, but if we compare females from MidSES and HighSES against males from MidSES and HighSES (last two columns), we find a statistically significant difference in average amount sent using a t-test (P-value=0.051) and using the Wilcoxon rank-sum test (P-value=0.032). This suggests that Madrassas student exhibit taste-based discrimination against females.

Regarding HighSES males and MidSES males, the three sets of pairwise hypothesis tests between having a match with a male versus female of a given institution type (HighSES male versus HighSES female; MidSES male versus MidSES female) that we conduct are not statistically significant, suggesting that there is no significant taste-based discrimination by those groups of students. However, a much higher proportion of MidSES males send nothing in the dictator game to MidSES females compared to MidSES males (26.7% versus 16.3%) and the difference is statistically significant at 10%. This is consistent with some form of taste-based discrimination against MidSES females. The last two columns of Table A1 investigate this within a regression framework and show similar qualitative (though less precisely estimated) results.

We now summarize all our results presented so far by institutions:

RESULT 1: *HighSES male students do not discriminate by gender in the trust game and in the dictator game, and believe males and female within an institution to be equally trustworthy. This is consistent with no (statistical or taste-based) gender discrimination.*

RESULT 2: *MidSES male students favor HighSES females in the trust game but treat MidSES males and MidSES females similarly. They believe MidSES females to be less trustworthy than MidSES males but they believe HighSES females to be more trustworthy than HighSES males. They do not discriminate by gender in the dictator game (though they are more likely to not send anything to MidSES females). This is consistent with statistical discrimination in favor of HighSES females, and (primarily statistical) discrimination against MidSES females compared to their male counterparts.*

RESULT 3: *Male Madrassa students discriminate against MidSES females (but not HighSES females) in their investment behavior in the trust game. This is despite the fact that they believe females to be more trustworthy than males. They discriminate by gender in the dictator, which is consistent with exhibiting taste-based discrimination against both MidSES and HighSES females.*

The focus in this paper is on male behavior. We also have a small sample of women from MidSES and HighSES. We present some descriptive statistics in Table A2 on their behaviour and expectations for completeness. As we find for males, HighSES females do not discriminate by gender in the trust game and in the dictator game, and believe males and female within an institution to be equally trustworthy. However, MidSES females discriminate against HighSES females (but not MidSES females) in the trust game. They also have lower expectations of the trustworthiness of HighSES females relative to HighSES males. In addition, they send a significantly lower amount to HighSES females relative to HighSES males in the dictator game, and a larger amount to females than to males at MidSES. This is consistent with taste-based discrimination in favor of MidSES females, and both taste-based and statistical discrimination against HighSES females.

5.3. Relative versus absolute position

Thus far, the focus of our study led us to analyze behavior and perceptions towards males and females within an institution (or social identity). From the women's perspective, such discrimination is relevant for their well-being if they care about their relative position compared to men of similar social

identity. Recent empirical work has documented a systematic correlation between measures of relative income and happiness/subjective well-being (e.g., Luttmer 2005; Clark et al. 2008) and reported job satisfaction and turnover (e.g., Clark and Oswald 1996; Card et al. 2012). Absolute position may also be relevant to women and it is therefore interesting to evaluate which groups of males treat females better in absolute terms. The last few rows in Tables 3 and 5 report the p-values of the F-test and Kruskal-Wallis test testing for equality of means and distribution for each column of matched partner (i.e., conditional on a match group, testing for equality of means and distribution across institutions). It enables us to investigate whether there are systematic differences by groups in their investment behavior for Table 3 or other-regarding behavior for Table 5 towards MidSES and HighSES females. Table 3 shows that there are statistically significant differences (as indicated by the low p-values of the two tests in the last two rows), and that a higher proportion of Madrassa students invest with female partners at both MidSES and HighSES compared to HighSES and MidSES males. A similar pattern is observed in the dictator game: Madrassa students give more to female students in the dictator game than any other groups of males. This is because Madrassas students tend to invest more in the trust game and give more in the dictator game than the other groups of males. Thus, even though they treat females worse than males, they still treat females better than the other groups of males.

More generally, column (1), in both Tables 3 and 5, shows that students in the various institutions differ significantly in their investment behavior and dictator game split, respectively. Conditional on matches with male students (columns 2, 4, 6, and 7 of the tables), we see that Madrassa students exhibit significantly higher trust and stronger unconditional other-regarding behavior. We do not explore this point in this paper since here the focus is on gender discrimination. This issue is discussed in detail in Delavande and Zafar (2015).

It should also be pointed out that, compared to existing studies, we find very high levels of trust and other-regarding behavior in our sample. In Delavande and Zafar (2015), we present detailed evidence that these high levels of pro-social behavior are not a consequence of other confounds, such as students not understanding the games, or not finding the incentives credible.

5.4. Accuracy of expectations

If respondents act on their expectations and play according to social preferences equilibrium, it is these expectations that matter in explaining their choices, regardless of whether they are correct or not. However, if expectations are incorrect for a particular group, it implies incorrect stereotypes for that

group, which could result in inefficiencies in actual interactions in the society. Inaccurate expectations also imply there may be a case for policy interventions which disseminate accurate information. We therefore next investigate how the expectations of the partner's trustworthiness match with *actual* trustworthiness (amount sent back in the trust game from the trustee), and whether there are any systematic gender biases.

Table 6 compares the males' expected amount received from the match with the average amount actually sent back by males and females. We show the proportion of (male) students who expected more than Rs 300 from a given group and the proportion of students from that group who actually sent more than Rs 300. The third row in each panel reports the p-value for the equality of these two proportions. In addition, we also show the proportion of students who had "accurate" expectations, i.e., those who chose the interval that contained the actual average.

Table 6 shows that HighSES males have more accurate expectations about females than about males: they expect both males and females to give more than Rs. 300 on equal footing, but males actually tend to give less. MidSES males tend to underestimate the trustworthiness of HighSES males, but there are no systematic patterns by gender of the match. In contrast, Madrassa students have inaccurate expectations by gender. While their expectations about receiving more than Rs. 300 when matched with males are fairly similar to actual receipts, they over-estimate this probability for females by at least 15 percentage points. This overestimation is driven by both Madrassa students expecting females to be more trustworthy than their male counterparts (Table 4) and females actually sending back less than their male counterparts. Finally, it is interesting to note that all groups, except MidSES males and Madrassa students, underestimate the trustworthiness of Madrassa students; this is something that we explore in more detail in Delavande and Zafar (2015).

6. Discussion of Confounding Factors and Potential Mechanisms

We find that Madrassa students are the only group of males who discriminate against females (from MidSES) in the trust game. A relevant question for policy is the extent to which this result is a consequence of selection into institutions versus teaching at the institutions. It is hard to speculate about the role of Madrassa teachings and environment in explaining our results. The relationship between Islam and treatment of women remains contentious (see discussion in Adida et al., 2014). Despite

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widespread gender imbalances observed in Muslim societies, Islamic teachings state that men and women are both equal, and Islam accords rights of inheritance and ownership to women (Badawi, 1995; Lewis, 2003).[14] However, many of the Islamic ancient texts and imperatives are open to interpretation, and there is considerable variation in how they are implemented. We also know little about how Madrassas teach their students to interpret these texts and rulings. We present some suggestive evidence that may shed light on whether the behavior of Madrassa students towards females is driven by selection or religious teaching, or both.

We conduct the following thought experiment within the pool of Madrassa students. In another part of the survey, respondents were asked which type of institutions they would attend if they were admitted to all institution types and all expenses would be covered. Twelve percent of the Madrassa students stated that they would choose to attend a non-Madrassa institution under those conditions (i.e., would "switch"). We can think of these students as not selecting into Madrassas on the basis of (observable and unobservable) characteristics since they would have attended another institution without budget or qualification requirements constraints. That is, the difference in behavior between these students and those who would attend a Madrassa regardless could arguably identify the extent to which selection into Madrassas drives our results. We find that this group of students invests at a significantly higher rate with female matches than students who would have chosen a Madrassa anyway: conditional on having a female match, the proportion of Madrassa students who invest in the trust game is respectively 93.6% and 72.9% (p-value of 0.002 for a pairwise t-test). This suggests that selection into Madrassas plays a role in the gender-discriminating behavior of Madrassa students.

We also look at how the behavior of Madrassa students varies by how many years they have spent in a Madrassa environment.[15] While the decision of how many years to spend in a Madrassa is not fully exogenous, we describe the differences in behavior for illustration purposes.[16] Conditional on being matched with female students, the investment rate of Madrassa students who have spent more than

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[14] In fact, medieval Islamic societies were far more progressive with regards to female rights than their European counterparts (Shatzmiller 1997; Lewis 2003).

[15] The Madrassa students in our sample are those pursuing an "Alim" degree, which is equivalent to a Bachelor's degree. However, students enrolling in this degree come from different academic backgrounds. Some of them may have studied in a Madrassa throughout, and others may have joined at different points in time. In our sample, students have spent 7.6 years on average in any Madrassa. However, there is substantial heterogeneity in our sample: 10 percent of the students have spent less than 4 years in a Madrassa, and 10 percent have spent more than 12 years in a Madrassa.

[16] If we assume that the selection into Madrassas is negative (i.e., students likely to enroll and spend longer in Madrassas are less likely to trust females to begin with)—of which we find some evidence above—then any difference that we find by years spent in a Madrassa would be biased upwards.

8 years in a Madrassa (about a third of our sample) was 73.9%, compared to 78.3% for those who had spent 8 or fewer years in a Madrassa (with the difference not statistically different; p-value = 0.351). Therefore, more time spent in a Madrassa environment does not seem to be correlated with less trust of females. These pieces of evidence are suggestive at best, but seem to indicate that selection into a Madrassa, rather than exposure to the religious teachings of Madrassas, is an important factor in explaining the different behavior towards women (relative to comparable men) that we observe of Madrassa students.

The fact that MidSES males, who are closer to the Madrassa students in terms of religiosity and wealth but are exposed to very different teachings, exhibit some form of discrimination against MidSES females (though not in the trust game) is also consistent with background characteristics being important. We further investigate the role of socio-economic status and religiosity in Table 7. Table 1 shows that, within each institution type, there is heterogeneity in terms of income and religiosity. For example, the proportion of male students from a high income family (parents earning more than Rs 32,500 per month) is 69% at HighSES, 32% at MidSES, and 8% at the Madrassas. Similarly, the proportion of students with high religiosity (reporting 9 or 10 on the 0-10 scale) is 6% at HighSES, 8% at MidSES, and 77% at the Madrassas. The dependent variables in Table 7 are the behavior in the games (dummy for investing in the trust game, amount sent in the dictator game, and amount expected back in the trust game, respectively). We conduct separate regressions by partner's institutions and evaluate how being matched with a female partner interacted by measures of socio-economic status and religiosity influence behavior in the games, while controlling for other characteristics, and, importantly, the main player's institution. The second column in Table 7 shows that, among players matched with a partner from HighSES, those from a high income household are, on average, 20.8 percentage points more likely to invest in the trust game with females, than those from a low income family (the estimate is statistically significant at 5%). In column 3, we see that, among players matched with a partner from MidSES, those from a low income family on average give less in the dictator game to females, compared to those from middle or high income families: males from middle (high) income families send Rs. 30 (Rs. 21) more to female partners from MidSES (however, only the estimate for female partner interacted with middle income is statistically significant). In Table 7, we see that none of the interaction terms between female partner and religiosity are statistically different from zero. This is consistent with the idea that our results are driven by socio-economic status rather than religiosity: men from lower socio-economic status seem more prone to discriminate against women from poorer backgrounds.

It should be pointed out that the only institution where we find that males do not treat female partners differently – HighSES – has gender-mixed education. The limited interaction between genders in the gender-segregated MidSES and Madrassa environments may lead to prejudice and incorrect beliefs about females. In the Indian context, Rao (2013) for example finds that being mixed with poor students makes other students overall exhibit more pro-social behavior. However, in our context, we also find that Madrassa students severely overestimate the amount returned by female matches in the trust game (they expect on average 85% of women to send back more than Rs. 300 in the trust game, while 67% do so), so it is not clear whether increased interactions with females would mitigate the discrimination that we observe.

Higher SES children are likely to grow in a very different family context that may shape their perception of gender difference. In a Western country context, Decker et al. (2015) show that SES is a powerful predictor of many facets of a child's personality, including time preferences, risk preferences, and altruism. They discuss potential pathways and document that many dimensions of a child's environment, such as parenting style, quantity and quality of parent-children interactions, the mother's IQ and economic preferences, and family structure, differ significantly by SES. We do not have data to support this but higher-SES Pakistani children may be brought up with a more equal notion of gender by their parents. In a similar vein, it is also worthwhile to point out that, in our sample, students from higher-income families tend to live in households where the difference between the mother's and father's education is significantly smaller; the (mother minus father) difference is -1.6 years of education in above-median income families compared to -3.6 years of education in below-median income families (differences statistically different at the <1% level). As a result, mothers in higher-SES families may have more bargaining power within the household, exposing children to a more balanced relationship between mothers and fathers.

In addition to individual characteristics, external factors, such as competition in the labor and marriage market, may also be responsible for some of the patterns in the data. For example, because they hail from a less privileged background, MidSES students may feel that they need to behave differently when facing someone from a higher socioeconomic status in order to reach a position similar to that of individuals from that status. This may explain why, in the trust game, MidSES males favor females of higher social class (relative to men of higher social class) but not women who belong to the same social class as themselves.

In Section 2.2, we note that, at both MidSES and HighSES, females tend to come from slightly more advantaged backgrounds than their male counterparts. One may therefore wonder whether looking at gender discrimination while holding the institution fixed truly isolates gender discrimination. As we mentioned above, we believe it is quite unlikely that students are aware of these small differences. We also note that, despite the fact that in both institutions, females have higher socioeconomic status than men, the discrimination we highlight is asymmetric: HighSES females tend to be favored compared to corresponding males, while MidSES females tend to be disadvantaged compared to MidSES males. If students are aware of these differences and if higher socio-economic status mitigates discrimination, this suggests that the discrimination we find against MidSES females would have been worse if they were perceived to be of similar socioeconomic characteristics as their male counterparts.

7. Conclusion

This paper shows interesting interactions between social identity and gender discrimination in the Pakistani context: gender discrimination is not uniform across the educated Pakistani society and varies in nature and intensity as a function of the social identity of both individuals who interact. We fail to find evidence of Liberal University (HighSES) male students—who are wealthier, less religious and more exposed to Western ideas—discriminating against women. Madrassa students, who come from more humble backgrounds, are more religious and relatively unexposed to Western ideas, exhibit taste-based discrimination against women. However, because they give and trust more than any other groups, they actually treat women almost as well or better (in absolute terms) than other groups of males in the society. Islamic University (MidSES) male students, who fare in the middle in terms of wealth and religiosity, have a less uniform behavior: their behavior towards males and females depends on the institutions (or social identity) of the person with whom they interact. Islamic University males favor Liberal University females while they do not favor Islamic University females compared to their male counterparts in the trust game, and exhibit mostly statistical discrimination against Islamic University females.

Our results are based on economic decision-making experiments. One reason for using this approach is that experiments illustrate actual behavior rather than what respondents believe and report to be their own behaviour. Second, experiments allow us to investigate the nature of discrimination—something that is extremely challenging using observational data. To what extent is the discrimination

that we document using these games generalizable to real-world interactions? We do not have a clear answer to this question, since we do not observe naturally-occurring interactions in real settings for the respondents in our sample. However, evidence from few studies that combine data from laboratory games that measure social capital and pro-social behaviour, and behaviour in real settings indicate that laboratory measures tend to be good predictors of behaviour in real-world situations (Karlan 2005; Benz and Meier 2008; Baran et al. 2010). While it is unclear how gender discrimination in trust exactly translates into discrimination in different situations, almost all bilateral exchanges—in the labor market or other market interactions—do require trust. For our results to have relevance, it suffices that trust matters, and that some part of the discrimination in trust channels into different dimensions. Consistent with our experimental results, and its potential ramification in the labor market, we do find that, high-socioeconomic status women (from the Liberal University) expect to earn as much as their male counterparts after completing their degree, while lower-socioeconomic status women (from the Islamic University) expect to earn 18% less on average than their male counterparts.

Because socio-economic status is negatively correlated with religiosity and lack of exposure to Western idea in our data, we cannot categorically determine the mechanisms that explain the gender taste-based discrimination that we identify. Yet, we provide some suggestive evidence that socioeconomic status, rather than religiosity or exposure to religious teachings, seem to be driving students' behavior toward women. Independently of the exact mechanisms, within elite groups, higher status women are favored and less discriminated against in Pakistan, which may explain why some are able to reach important leadership positions.

Generally, it is believed that educating women may by itself lead to female empowerment and thus result in less gender discrimination. In our study, both groups of females are pursuing the same level of education (Bachelor's degrees), and studying similar subjects. Yet, higher SES and less religious females are favoured in some instances while lower SES and more religious females are discriminated against, by certain male respondents. Since it is unclear why women would be discriminated against because they are more religious, we speculate that the difference in socio-economic status is driving this difference in discrimination. Note however that the behavior of our male respondents matched with male partners does not differ by the institution of their match, i.e., social identity seems to be irrelevant in the male-male interactions.[17] This suggests that, when men interact

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[17] This can be seen by comparing the investment levels across male matches within an institution (that is, a given row) in Table 3, or behavior in the dictator game in Table 5. The tables in this paper do not report results for pairwise comparisons of

with women, the woman's social class is such a powerful construct that it continues to remain salient. This is particularly striking, since we focus on interactions of highly-educated individuals in a country where less than 10% of adults have a Bachelor's degree (Pakistan Labor Force Survey 2008/2009).

Our findings present a conundrum to policy-makers. Women belonging to lower socioeconomic class generally have fewer chances of upward social mobility, and have greater constraints. That females—but only those belonging to the lower social class—are discriminated against by (certain) males, indicates that those females who are already at a disadvantage to start out with are further marginalized. This suggests that social identities (such as class, ethnicity, race, etc.) are a powerful construct, and simply educating women may not be enough to overcome the distortions that are introduced by these other dimensions. Our results then imply that policies aimed at empowering women need to take into account the interaction of gender with social class. For example, simply promoting education for girls or allocating quotas to women in political or other spheres may not be sufficient to change attitudes towards women, and such policies may need to incorporate other characteristics—such as socio-economic background—along with gender.

The taste-based nature of the discriminatory behavior of Madrassa students is also a challenge for policy design. In developed countries such as the US, rules forbidding taste-based discrimination have been erected for decades, and have been fairly effective at ameliorating taste-based discrimination (Gneezy et al. 2012). However, in developing settings such as the one in this study, it is not clear how effective such legislation would be. In addition, it is generally easier to implement policies that attenuate statistical discrimination by removing information inefficiencies.[18] On the other hand, successful policies for altering gender tastes are less clear—they require understanding the formation of preferences, which is a challenging task.

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male matches (all of which are statistically insignificant). Interested readers are instead referred to Delavande and Zafar (2015) which focuses on male-male matches only.

[18] For example, Beaman et al. (2009) find that exposure to female leaders (through mandated quotas) erases statistical discrimination against them by male villagers in India, but does not alter tastes for them.

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Table 1: Summary Characteristics

	HighSES		MidSES		Madrassa	City	
	Male	Fem	Male	Fem	Male	Male	Fem
# of Observations	758	203	444	286	1145	394	341
Age	21	21	22	22*	22	34	31**
	(2.8)	(3.4)	(2.5)	(2.2)	(3)	(13)	(12)
Father's yrs of education	12	12	11	13***	7.1	7.7	11***
	(5.2)	(5.4)	(4.2)	(3.2)	(5)	(5.4)	(4.7)
Mother's yrs of education	12	13 ***	7.1	9***	3.4	4	7.5***
	(4.4)	(3.6)	(5.1)	(4.5)	(4.4)	(4.9)	(5.3)
Parent income ('000s Rs)	127	155 *	42	66***	20	25	30
	(182)	(212)	(52)	(121)	(60)	(24)	(31)
% Middle Income (Rs. 9k-32.5k)	27.0	17.7***	53.0	42.6***	33.8	55.2	45.0*
% High Income (>Rs 32.5k)	69.0	79.3***	32.3	48.2***	8.0	14.7	22.9**
# of siblings	3.5	3 ***	4.5	4.2*	.	5.1	4.3***
	(2)	(1.7)	(2.3)	(2)	(.)	(3)	(2.5)
% attend relig school[a]	35	19***	45	30***	100	9	12
% father Madrassa[b]	11	5**	12	8*	20	1	1
% Parents own:							
home	88	87	82	79	82	100	100
tv	85	87	79	93***	30	84	56***
cell phone	83	85	80	87**	74	97	84***
computer	74	78	59	74***	25	70	51***
internet access	57	67**	39	52***	7	45	35***
motorbike	59	48***	50	42**	33	61	19***
car	72	81**	41	57***	10	37	25***
Religiosity (0-10)[c]	5.7	5.6	6.3	6.3	9.2	6.1	6.3
	(1.8)	(1.6)	(1.7)	(1.6)	(1.6)	(2.4)	(1.8)
% Middle religiosity (6 to 8)	43.7	40.7	53.3	58.8	16.9	30.2	47.6***
% High religiosity (9-10)	5.8	4.2	8.3	5.6	77.5	19.0	12.7**
Number of times pray/day	2	2.4 ***	2.9	3.6***	4.9	2.9	3.6 ***
	(1.7)	(1.7)	(1.7)	(1.3)	(.42)	(1.9)	(1.5)
Prop that fast Ramadhan	.91	.87 **	.96	.94*	.98	.89	.88
	(.21)	(.25)	(.15)	(.17)	(.12)	(.24)	(.25)
Trust (0-10)[d]	4.6	4 ***	4.6	3.9**	5.1	.	.
	(2.4)	(2.4)	(2.7)	(2.8)	(3.4)		(.)
Risk general (0-10)[e]	6.8	7	6.6	6.1**	5.2	.	.
	(2.3)	(2.1)	(2.4)	(2.5)	(3.9)		(.)
% watch:							
English news	84	88	83	83	25	24	53***
BBC or CNN	59	70***	60	59	23	12	25***

[a] Percent of respondents who have ever attended a religious institution (full time or part time).

[b] Percent of respondents whose father attended a Madrassa or any religious institution for more than 2 years (either part time or full time).

[c] Self-reported religiosity on a scale of zero (not religious at all) to 10 (very religious).

[d] Response to question: "....most people can be trusted?" on a scale of zero (all people cannot be trusted) to 10 (all people can be trusted).

[e] Self-reported risk preference on a scale of zero (totally unwilling to take risk) to 10 (fully prepared to take risks).

This table shows pairwise t-tests for male versus female characteristics within each institution.

Significant at * p<0.10, ** p<0.05, *** p <0.01. Asterisks shown in the female column.

Table 2: Number of respondents by match

Institution:	Matched with:					
	HighSES Male	HighSES Female	MidSES Male	MidSES Female	Madrassa	Total
HighSES Male	153	145	141	158	161	758
HighSES Female	40	47	57	33	26	203
MidSES Male	89	87	86	87	95	444
MidSES Female	57	56	54	53	66	286
Madrassa	236	217	198	132	362	1,145
Total	575	552	536	463	710	2,836

Table 3: Proportion of respondents who send money in the Trust game

		Matched with						
Institution:	Total	HighSES		MidSES		Madrassa	HighSES + MidSES	
		Male	Female	Male	Female	Male	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HighSES Male	0.718	0.667	0.703	0.787	0.709	0.727	0.725	0.706
N	758	153	145	141	158	161	294	303
MidSES Male	0.631	0.551	0.689*+	0.628	0.621	0.663	0.589	0.655
N	444	89	87	86	87	95	175	174
Madrassa Male	0.790	0.826	0.816	0.808	0.682***+++	0.782	0.818	0.765*+
N	1145	236	217	198	132	362	434	349
P-value for:[a]								
F-test	0.0000	0.0000	0.0165	0.0011	0.3532	0.0164	0.0000	0.0077
K-Wallis test	0.0000	0.0000	.0168	0.0012	0.352	0.0165	0.0000	0.0078

The table reports the proportion of respondents who send money in the trust game.

[a] P-values of tests for equality of means (F-test) and distributions (Kruskal-Wallis test) across institutions In addition, the table also reports two types of pairwise tests for equality of proportions (who send money) between those having a match with HighSES Male versus HighSES Female, and those matched with MidSES Male versus MidSES Female. P-values for these tests not reported, but denoted by asterisks and plus signs on the columns for (1) female matches: (1) T-tests significant at *p<0.10,**p<0.05,***p<0.01, (2) Wilcoxon rank-sum tests significant at + p<0.10, ++ p<0.05, +++ p <0.01.

Table 4: Amount Expected back from match out of Rs.900

Institution:	Total	HighSES		MidSES		Madrassa	HighSES + HighSES	
		Male	Female	Male	Female	Male	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HighSES Male								
mean	369.79	363.1	374.8	387.6	383.5	342.6	374.8	379.4
median	350.00	350.0	450.0	450.0	450.0	350.0	350.0	450.0
Prop. expect >200	0.897	0.895	0.917	0.901	0.905	0.870	0.898	0.911
Prop. expect >300	0.722	0.712	0.766	0.745	0.759	0.634	0.728	0.762
N	758	153	145	141	158	161	294	303
MidSES Male								
mean	354.28	333.2	355.8	379.1	341.9*	361.6	355.7	348.9
median	350.00	350.0	350.0	350.0	350.0	450.0	350.0	350.0
Prop. expect >200	0.869	0.787	0.885*	0.930	0.828**	0.916	0.857	0.856
Prop. expect >300	0.694	0.640	0.667	0.756	0.701	0.705	0.697	0.684
N	444	89	87	86	87	95	175	174
Madrassa Male								
mean	412.22	404.1	425.4	405.9	429.4	406.8	404.9	426.9**
median	450.00	450.0	450.0	450.0	450.0	450.0	450.0	450.0*
Prop. expect >200	0.923	0.919	0.926	0.919	0.947	0.917	0.919	0.934
Prop. expect >300	0.799	0.750	0.839**	0.783	0.856*	0.796	0.765	0.845***
N	1133	233	215	195	131	359	428	346
P-value for:								
F-test[a]	0.000	0.000	0.000	0.297	0.000	0.000	0.000	0.000
Median test[b]	0.000	0.003	0.000	0.075	0.001	0.001	0.000	0.000
K-Wallis test[c]	0.000	0.000	0.000	0.110	0.000	0.000	0.000	0.000

[a] F-test for the equality of means across institutions.

[b] Nonparametric median test for the equality of medians across institutions.

[c] Kruskal-Wallis test for the equality of distributions across institutions.

In addition, this table reports the following pairwise tests between having a match with HighSES Male versus HighSES Female, and between having a match with MidSES Male versus MidSES Female:

a) For the amount expected in the Trust game:(1) T-test on the means; (2) Wilcoxon rank-sum test on the medians; (3) Kolmogrov-Smirnov test on the sample sizes.

b) For the proportion expecting >200 and >300, Wilcoxon rank-sum test is reported.

P-values for these tests not reported, but their significance is denoted by asterisks in columns for female matches. For all tests,* p<0.10, ** p<0.05, *** p<0.01.

Table 5: Amount Sent in Dictator game

Institution:	Total	Matched with						
		HighSES		MidSES		Madrassa	HighSES + MidSES	
		Male	Fem	Male	Fem	Male	Male	Fem
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HighSES Male								
mean	163.13	151.30	145.67	180.63	171.35	166.68	165.37	159.06
median	200	200	200	200	200	200	200	200
N	758	153	145	141	158	161	294	303
% don't send	0.088	0.111	0.110	0.050	0.076	0.093	0.082	0.092
MidSES Male								
mean	140.27	141.59	150.07	135.49	118.24	154.53	138.58	134.06
median	200	200	200	185	100	200	200	200
N	440	88	85	86	86	95	174	171
% don't send	0.161	0.159	0.128	0.163	0.267*	0.095	0.161	0.198
Madrassa Male								
mean	181.74	187.39	178.12	189.44	179.24	176.93	188.34	178.55*
median	200	200	200	200	200	200	200	200**
N	1139	233	217	198	132	359	431	349
% don't send	0.032	0.038	0.032	0.030	0.038	0.028	0.034	0.034
P-value for:								
F-test	0.000	0.000	.0007	0.000	0.000	.0064	0.000	0.000
Median test	.0006	.1574	.4776	.0037	.0131	.7535	.0024	.0311
K–Wallis test	0.000	0.000	.0042	0.000	0.000	.0025	0.000	0.000

This table also reports four pairwise tests between having a match with HighSES Male
versus HighSES Female, and between having a match with MidSES Male versus MidSES Female:
(1) T-test for equality of the means (reported on the mean),
(2) Wilcoxon rank-sum for equality of the medians (reported on the median),
(3) Kolmogorov-Smirnov for equality of the distribution (reported on the sample size), and
(4) T-test for equality of proportions who don't send (reported on the % don't send).
P-values for these tests not reported, but their significance is denoted by asterisks in
columns for female matches.
For all tests,* p<0.10, ** p<0.05, *** p<0.01.

Table 6: How do Male Students' Expectations Compare with Actual Choices of Trustees?

Institution:	Total	Matched with				
		HighSES		MidSES		Madrassa
		Male	Fem	Male	Fem	Male
	(1)	(2)	(3)	(4)	(5)	(6)
HighSES						
Prop. expect >300	0.722	0.712	0.766	0.745	0.759	0.634
Prop. match sent >300	0.715	0.62	0.775***	0.584	0.719	0.814
P-value: actual v. expected[a]	1.000	0.0901	.9006	0.0108	0.5508	.0001
Prop. accurate expec.	0.365	0.275	0.517***	0.241	0.487***+++	0.304
N	758	153	145	141	158	161
MidSES						
Prop. expect >300	0.694	0.640	0.667	0.756	0.701	0.705
Prop. match sent >300	0.748	0.745	0.737	0.756	0.722	0.758
actual v. expected[a]	0.715	.0923	0.3748	1	0.7906	0.3406
Prop. accurate expec.	0.372	0.303	0.368	0.442	0.276**+++	0.463
N	444	89	87	86	87	95
Madrassa Male						
Prop. expect >300	0.799	0.750	0.839***++	0.783	0.856*+	0.796
Prop. match sent >300	0.738	0.708	0.577	0.779	0.712	0.757
actual v. expected[a]	0.127	0.3551	0.0012	0.9403	0.0152	0.2124
Prop. accurate expec.	0.366	0.127	.488***+++	0.455	.197***+++	0.461
N	1145	236	217	198	132	362

[a] p-value of t-test for the equality of proportion that expect more than 300 and the proportion of match group that actually send back more than 300.

In addition, this table also reports two pairwise tests between having a match with HighSES Male versus HighSES Female, and between having a match with MidSES Male versus MidSES Female (p-values for the tests not shown, but significance is denoted on the columns for female matches):

(1) Wilcoxon rank-sum tests for equality of proportions. significant at $^{+}$ p<0.10, $^{++}$ p<0.05, $^{+++}$p<0.01, and (2) T-tests for equality of proportions. significant at * p<0.10, ** p<0.05, ***p<0.01.

Table 7: Behavior in the Game by Socio-economic and Religiosity Status

| | Dummy for invest in Trust Game[a] | | Amount Sent in Dictator Game[b] | | Amount Expected Back in Trust Game[c] | |
| | Matched to | | Matched to: | | Matched to: | |
	MidSES	HighSES	MidSES	HighSES	MidSES	HighSES
Female partner	-0.157*	-0.030	-25.82*	-5.10	26.44	-1.05
	(0.084)	(0.071)	(14.85)	(12.03)	(26.86)	(23.97)
Middle Income	0.008	-0.002	-18.90*	5.90	-0.721	11.21
	(0.056)	(0.053)	(9.99)	(8.88)	(18.14)	(17.76)
High Income	-0.053	-0.075	-28.70**	-3.33	-4.09	-16.45
	(0.067)	(0.062)	(11.97)	(10.43)	(21.66)	(20.72)
Female partner x Middle income	-0.029	0.011	29.86**	-6.92	-36.41	3.84
	(0.083)	(0.072)	(14.81)	(12.06)	(26.82)	(24.11)
Female partner x High income	0.040	0.208**	20.77	5.92	-41.97	21.70
	(0.088)	(0.080)	(15.60)	(13.44)	(28.20)	(26.76)
Middle Religiosity	-0.012	0.001	11.94	-3.64	-5.61	-6.33
	(0.053)	(0.051)	(9.40)	(8.52)	(17.00)	(17.06)
High Religiosity	0.067	-0.024	11.97	-10.06	22.35	19.69
	(0.060)	(0.053)	(10.56)	(8.92)	(19.18)	(17.85)
Female partner x Middle religiosity	0.097	-0.065	-12.06	-2.22	10.65	25.28
	(0.075)	(0.073)	(13.37)	(12.32)	(24.17)	(24.61)
Female partner x High religiosity	0.125	0.033	0.094	3.07	1.41	8.13
	(0.084)	(0.073)	(14.92)	(12.34)	(26.99)	(24.59)
Risk general (0-10)	0.011	0.004	0.277	-1.34	3.33	-0.797
	(0.008)	(0.008)	(1.46)	(1.26)	(2.65)	(2.52)
Ownership Index (0-8)	0.008	0.006	2.66*	-0.595	0.998	2.27
	(0.009)	(0.008)	(1.58)	(1.36)	(2.86)	(2.72)
Age	0.000	0.010*	1.31	0.906	1.43	0.615
	(0.005)	(0.005)	(0.949)	(0.878)	(1.70)	(1.76)
MidSES University	-0.075	-0.223***	-51.40***	-40.54***	-36.83**	-62.29***
	(0.053)	(0.050)	(9.41)	(8.38)	(16.90)	(16.70)
HighSES University	0.066	-0.149**	4.05	-36.65***	-7.00	-34.81**
	(0.055)	(0.050)	(9.78)	(8.44)	(17.63)	(16.83)
Constant	0.682***	0.597***	152.20***	177.85***	351.19***	376.75***
	(0.133)	(0.130)	(23.84)	(21.84)	(42.962)	(43.78)
Number of Observations	793	904	792	898	789	900

[a] OLS regression of dummy for investment in trust game.
[b] OLS regression of amount sent in dictator game (Rs. 0- 400).
[c] OLS regression of amount expected back from partner in the trust game (Rs. 0-900).
Standard errors in parentheses. *p<0.10, **p<0.05, ***p<0.01.

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Table A1: Behavior in the Games, Conditional on Match and Observables

	Dummy for invest in Trust Game		Amount Expected Back in Trust Game		Amount Sent in Dictator Game	
	(1)	(2)	(3)	(4)	(5)	(6)
HighSESplayer x MidSESpartner	0.009	0.033	-17.59	-6.26	5.73	12.09
	(0.043)	(0.050)	(14.15)	(16.14)	(7.49)	(8.55)
HighSESplayer x (MidSESpartner x female)	-0.084*	-0.085*	-3.60	-3.31	-9.85	-10.65
	(0.051)	(0.050)	(16.41)	(16.41)	(8.69)	(8.68)
HighSESplayer x Madrassapartner	-0.060	-0.026	-62.90***	-49.43**	-9.22	-2.10
	(0.042)	(0.048)	(13.53)	(15.53)	(7.17)	(8.22)
HighSESplayer x HighSESpartner	-0.117**	-0.089*	-41.66**	-29.95*	-24.18***	-17.80**
	(0.042)	(0.048)	(13.71)	(15.64)	(7.26)	(8.28)
HighSESplayer x (HighSESpartner x female)	0.043	0.050	11.04	12.22	-7.88	-8.55
	(0.051)	(0.051)	(16.51)	(16.54)	(8.74)	(8.75)
MidSESplayer x MidSESpartner	-0.164**	-0.145**	-26.16	-15.84	-41.52***	-38.91***
	(0.053)	(0.056)	(17.18)	(18.30)	(9.10)	(9.69)
MidSESplayer x (MidSESpartner x female)	0.002	0.000	-36.62*	-37.23*	-15.72	-16.52
	(0.067)	(0.067)	(21.63)	(21.65)	(11.48)	(11.48)
MidSESplayer x HighSESpartner	-0.233***	-0.208***	-71.58***	-60.86***	-33.88***	-31.01**
	(0.052)	(0.055)	(16.79)	(17.86)	(8.93)	(9.49)
MidSESplayer x (HighSESpartner x female)	0.132**	0.129**	23.91	23.41	7.87	7.59
	(0.066)	(0.066)	(21.44)	(21.44)	(11.45)	(11.44)
MidSESplayer x Madrassapartner	-0.120**	-0.097*	-42.77**	-31.95*	-21.35**	-18.89**
	(0.051)	(0.054)	(16.57)	(17.70)	(8.77)	(9.37)
Madrassaplayer x MidSESpartner	0.030	0.034	-1.04	-0.361	13.69**	13.84**
	(0.039)	(0.039)	(12.75)	(12.77)	(6.72)	(6.73)
Madrassaplayer x (MidSESpartner x female)	-0.134**	-0.144**	27.09*	25.60	-9.71	-10.51
	(0.049)	(0.049)	(16.09)	(16.14)	(8.47)	(8.49)
Madrassaplayer x HighSESpartner	0.049	0.053	-0.506	-0.050	11.64*	12.16*
	(0.037)	(0.037)	(12.09)	(12.11)	(6.41)	(6.42)
Madrassaplayer x (HighSESpartner x female)	-0.019	-0.024	21.14	19.37	-8.32	-8.78
	(0.042)	(0.042)	(13.62)	(13.63)	(7.20)	(7.20)
Middle Income		-0.005		-4.45		-3.23
		(0.024)		(7.98)		(4.22)
High Income		-0.019		-8.19		-10.16*
		(0.030)		(9.93)		(5.26)
Ownership Index (0-8)		0.006		2.00		0.315
		(0.005)		(1.66)		(0.879)
Age		0.010**		1.61		1.49**
		(0.003)		(1.05)		(0.556)
Middle Religiosity		0.002		2.26		0.829
		(0.023)		(7.44)		(3.94)
High Religiosity		0.041		19.41**		-0.877
		(0.027)		(8.67)		(4.59)
Risk general (0-10)		0.008*		0.843		-0.932
		(0.005)		(1.54)		(0.815)
Constant	0.783***	0.500***	404.73***	349.18***	175.48***	147.03***
	(0.023)	(0.080)	(7.57)	(26.28)	(4.01)	(13.95)
Number of Observations	2299	2299	2289	2289	2289	2289

[a] OLS regression of dummy for investment in trust game.

[b] OLS regression of amount sent in dictator game (Rs. 0- 400).

[c] OLS regression of amount expected back from partner in the trust game (Rs. 0-900).

Standard errors in parentheses. *p<0.10, **p<0.05, ***p<0.01.

Table A2: Female Students' Behavior and Expectations

	Matched with			
	HighSES		MidSES	
	Male	Female	Male	Female
	(1)	(2)	(3)	(4)
Panel A: Proportion who Send Money in the Trust Game				
HighSES Female	0.575	0.638	0.737	0.758
MidSES Female	0.632	0.429**	0.352	0.491
Panel B: Amount Expected Back from Match out of Rs.900				
HighSES Female				
Mean	365.0	313.8	334.2	365.2
Prop. expect >Rs. 200	0.900	0.787	0.895	0.879
MidSES Female				
Mean	357.0	328.6	316.7	331.1
Prop. expect >200	0.965	0.804***	0.815	0.868
Panel C: Mean Amount Sent in the Dictator Game				
HighSES Female	164.4	172.3	176.3	192.4
MidSES Female	153.9	124.9**	111.5	137.7*
HighSES Female N	40	47	57	33
MidSES Female N	57	56	54	53

Table reports pairwise t-tests between having a match with HighSES Male vs HighSES Female, and between having a match with MidSES Male vs MidSES Female. P-values for these tests not reported, but their significance is denoted by asterisks in columns for female matches. For all tests,* p<0.10, ** p<0.05, *** p<0.01.