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Gender and bargaining

Evidence from an artefactual field experiment in rural Uganda

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Abstract: We study gender differences in bilateral bargaining using an artefactual field experiment in rural Uganda, through variation in gender composition of bargaining pairs and in disclosure of identities. Disagreement is common independently of disclosure condition, but less frequent among female-only pairs. When paired with a man who is informed about their identity, women tend to demand less than men in the same situation. The influence of beliefs on demands is stronger for men than for women, and this difference is larger under anonymity than when identities are disclosed. These results identify important mechanisms that induce gender inequality in resource access.

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1. Introduction

Gender inequality remains an important issue in many domains (World Bank, 2012). It is not only intrinsically valuable but also important for economic and human development. Specifically in developing countries, lowering gender inequality has the potential to increase economic productivity and improve social development outcomes, including the education and health of children. Gender inequality tends to be most severe in rural areas of developing countries, as reflected by unfavourable access to scarce resources for women (World Bank, 2012).

It is thus important to identify ways to effectively improve gender equality in access to scarce resources. As resources are often allocated by way of bargaining, a better understanding of the bargaining processes underlying the allocation of such resources is crucial. Over the last decades, both resource sharing and gender have been prominent topics in development economics. However, gender effects in sharing decisions have not been analysed to an extent that provides us with sufficient understanding of the underlying *bargaining* processes in a systematic way.[1]

This study contributes to a systematic understanding of such underlying processes by employing a controlled bargaining experiment in the field. We are interested in how gender influences bargaining behaviour, and specifically in how the gender of two participants interacts. Hence, we analyse the following two research questions: (R1) the role of the gender of the decision maker, and (R2) the role of gender combinations in bargaining outcomes.

To answer these questions, we randomly match two participants who are asked to simultane-

[1] Many experimental studies have used dictator games to analyse the effect of gender on sharing. Based on university subject pools, they display a large variation in gender effects on sharing. Whereas some studies do not find any difference between men and women as givers, others find that women tend to be more generous (see, e.g., Bolton and Katok, 1995; Eckel and Grossman, 1996, 1998; Cox and Deck, 2006; Konow et al., 2008; and Croson and Gneezy, 2009, for a survey). Evidence of the recipient's gender affecting the giver's decision is also mixed. Dufwenberg and Muren (2006) find that men receive less than women and Ben-Ner et al. (2004) find that if the gender of the recipient is known, women tend to give systematically less to women than to men and persons of unknown gender. A growing number of dictator game experiments have been conducted in a field context in developing countries, and many of them include gender controls in their analysis. Most of them do not find statistically significant gender effects (see, e.g., Binzel and Fehr, 2013; Jakiela, 2011; Gowdy et al., 2003; Ligon and Schechter, 2012; Ado and Kurosaki, 2014). An exception is Gurven et al. (2008), who find that men in the Bolivian Amazon give more than women. This finding is supported also by D'Exelle and Riedl (2016), who find that women in rural Nicaragua share less than men, and that this difference is largest among different gender pairs from the same village.

ously demand a share of a fixed resource. If participants make demands that in sum are not larger than the fixed resource, they receive their respective demands; otherwise a conflict occurs and both receive a fixed conflict payoff. This bargaining situation is known as the Nash demand game (Nash, 1950). It is widely regarded as reflecting important elements of real-world bargaining situations in a stylized way.

We exploit variation along two dimensions. First, we vary the gender combination of the bargaining partners in a pair, which consists of either two women, two men, or a man and a woman. Second, we vary the information participants receive about the identity of their opponent in the following way: both participants in a pair have information on the other's identity (full disclosure – FD), only one of them is informed (semi-disclosure – SD), or no one has information about the other's identity (anonymity – AN).[2] The combination of variation in gender matching and identity disclosure allows us to disentangle R1 and R2.[3]

In AN only own gender matters for the decision, while in the other two treatments both own and other's gender can have an influence on the decisions made. We label changes in behaviour between information treatments as disclosure effect. Two different parts of such a disclosure effect can be distinguished: on the one hand, information about the identity of the opponent (direct part), and on the other, knowledge about the opponent having the same information about oneself (indirect part). When comparing FD and AN, both parts occur simultaneously. In a comparison between SD and FD, however, there is no change in the information available about the identity of the opponent. Only the information available to the opponent changes, thereby leaving only the indirect part.

Both parts of the disclosure effect can depend on own gender and on gender combinations. We will analyse three different points: (i) The effect of identity disclosure as such (disclosure

[2]For a part of our analysis, we can exploit within-subject variation (all participants are paired anonymously and non-anonymously). Using a fixed effects approach, we avoid omitted variable bias by controlling for all observable and unobservable correlates of gender. For the rest of the analysis, we control for socioeconomic characteristics that might be correlated with both gender and bargaining outcomes by combining the data from the experiment with results from a survey which elicits information about household and individual characteristics such as wealth, age, risk aversion, and social connections between households.

[3]Further, varying the disclosure of identity helps us to avoid experimenter demand effects. We could have opted for a design in which the experimenter reveals only the gender of the opponent. Such design, however, would be vulnerable to experimenter demand effects in settings characterized by extreme gender inequality. Participants might correctly guess that the experiment investigates gender equality, and therefore adjust their decisions accordingly. This might, for example, induce male participants to make more generous demands when paired with women.

effect without distinguishing direct and indirect part), and whether this differs between male and female decision makers, irrespective of the opponent's gender. This allows us to analyse whether there is a gender difference in perceived strategic uncertainty, induced by changes in information about the counterpart's identity. (ii) Gender differences in influence of the opponent's gender on the disclosure effect (still without distinguishing direct and indirect part). And (iii) differences between men and women regarding the relevance of the indirect part, depending on the other's gender. For all three points, we first consider the influence of own gender and gender combinations on demands, and we then analyse the extent to which demands depend on the beliefs that participants have about their counterpart's demand.

To address point (i), we compare AN and FD. We see that, conditional on beliefs, there is a strong disclosure effect for women. This effect exists independently of the opponent's gender. For men, on the contrary, there is no such disclosure effect. Further, for women the influence of beliefs on demands is stronger in FD than in AN. For men, beliefs have a similarly strong effect in both treatments. That is, identity disclosure has a strong effect for women regarding both demands and relevance of beliefs, but not for men.

To analyse point (ii) we focus on men's and women's behaviour when matched either with a man or with a woman. When matched with a man in FD, the influence of beliefs on demands is stronger for men than for women and, conditional on their beliefs, men who are matched with a man demand more than women who are matched with a man. No such differences are identified for men and women who are matched with a woman. This suggests that men and women behave differently when in a pair with a man, but not when in a pair with a woman. This says that gender pairing matters for the strength of the disclosure effect.

Further, women demand less than men when paired with a man in FD. However, men demand less from another man in SD than in FD, while women demand more from a man in SD than in FD. Men who are matched with a man condition less on their beliefs in SD, while women who are matched with a man condition more on their beliefs in SD. This suggests that there are strong gender differences regarding the influence of the indirect part of the disclosure effect, and that this difference depends additionally on gender pairing. This answers point (iii).

These results on the individual level translate to the dyad level in the sense that, in FD, female-only pairs are less likely to enter into conflict compared to mixed gender pairs, and they leave more resources unclaimed. In the AN treatment gender pairing has no effect.

In section 2 we outline our research design. In section 3 we show descriptive statistics, and we then move into the regression analysis in section 4. Section 5 concludes.

2. Research Design

In this section we first present our theoretical framework and subsequently introduce the experimental setup, as well as the survey design.

2.1. Theoretical Background

Assume we have a population of n players that consists of both men and women. We denote gender of player i as $G_i \in \{W,M\}$, where $G_i = M$ means that i is a man, and $G_i = W$ means that i is a woman. Each player possesses a set of characteristics X, where X_i denotes player i's characteristics. X_i can be high or low, such that $X_i \in \{H,L\}$.[4] Players are fully described by G and X. That is, there are four player types $T = \{MH,ML,WH,WL\}$. These types interact in the context of a Nash demand game (NDG).

The NDG was introduced by Nash (1950). In the original version of the game, bargaining takes place between two players, i and j, who simultaneously and independently make demands D_i and D_j from a given resource R. If the sum of the demands made by the two players does not exceed the amount of the available resource ($D_i + D_j \leq R$), they reach an agreement and receive their respective demands. Otherwise, there is conflict and each partner gets an ex ante defined and known conflict payoff, given by C_i and C_j, respectively.

In negotiations, the conflict payoff is determined by the outside options available to the players. Outside options, in turn, depend on the player's characteristics, where $C(H) > C(L)$. Given the same X_i, the value that $C(\cdot)$ assigns is the same for men and women, such that $C_M(H) = C_W(H)$

[4] X describes both socioeconomic and psychological characteristics. For the explanation of the theoretical framework we will consider these characteristics as a compound measure. While this necessarily induces loss of detail, it enables us to focus on the main question of this study, the influence of gender on bargaining behaviour.

and $C_M(L) = C_W(L)$.[5]

Let $\mathfrak{R}$ denote the set of possible agreements. It is easily seen that, when $C_i \leq D_i$ and $C_j \leq D_j$ for all $(D_i, D_j) \in \mathfrak{R}$, then any combination of (D_i, D_j) with $D_i + D_j = R$ constitutes a Nash equilibrium. Equilibrium selection is subject to the problem of compound expectations, leading to infinite reflections of expected behaviour between the players (a very intuitive description is given in Harsanyi (1962)). To solve this problem, Nash (1950) proposed a solution to the bargaining problem that satisfies a number of reasonable axioms, under the assumption of complete information. It is defined by the following maximization:

$$arg \max_{D_i \geq C_i, D_j \geq C_j} (D_i - C(X_i))(D_j - C(X_j)) \tag{1}$$

The demands D_i^*, D_j^* that solve this expression are unique and thus allow for predictions regarding the distribution of the resource. The pair (D_i^*, D_j^*) is now known as the Nash Bargaining Solution (NBS). It satisfies $D_i^* + D_j^* = R$. The distribution of the resource, as indicated by (D_i^*, D_j^*), depends on the conflict payoffs C_i and C_j, where a higher conflict payoff gives a player the freedom to demand more. It holds that $D_i^* > D_j^*$ if and only if $X_i = H$ and $X_j = L$ such that the distribution is given by (D_H, D_L). If $X_i = X_j$ also $D_i^* = D_j^* = D_e$, where D_e denotes the equal split (independently of whether conflict payoff is high or low, as long as it is identical for both). Table 1 displays the possible payoff combinations by player types.

	MH	ML	WH	WL
MH	(D_e, D_e)	(D_H, D_L)	(D_e, D_e)	(D_H, D_L)
ML	(D_L, D_H)	(D_e, D_e)	(D_L, D_H)	(D_e, D_e)
WH	(D_e, D_e)	(D_H, D_L)	(D_e, D_e)	(D_H, D_L)
WL	(D_L, D_H)	(D_e, D_e)	(D_L, D_H)	(D_e, D_e)

Table 1: Payoff

As soon as there is uncertainty regarding player types, however, the problem of compound expectations reappears and equation 1 does not hold anymore. Harsanyi (1962) proposed a solution for this case based on stereotype functions where, even if players' actual utility is uncertain, they might be aware of the stereotypes present within a society. According to his reasoning, if both respond to the same stereotypes, demands still converge just as they would

[5] Of course we could also define a dependency between G_i and X_i. For instance, $C_M(H) > C_W(H)$ and $C_M(L) > C_W(L)$. But we will see that such an assumption complicates the reasoning without changing the qualitative results. The assumption that $C_M(H) = C_W(H)$ and $C_M(L) = C_W(L)$ is thus without loss of generality.

under complete information. We adopt Harsanyi's idea of stereotype functions, in the form of a parameter θ which denotes a player's belief about the distribution of X across gender. For simplicity, assume that half of the population are men and half are women, as well as that half have a high conflict payoff and half have a low conflict payoff.[6] Then, θ describes the fraction of *women* that are believed to have high conflict payoff (WH), while $(1-\theta)$ is the fraction of *men* believed to have high conflict payoff (MH).

	MH	ML	WH	WL	Marginal
MH	$(1-\theta)^2/4$	$(1-\theta)\theta/4$	$(1-\theta)\theta/4$	$(1-\theta)^2/4$	$(1-\theta)/2$
ML	$(1-\theta)\theta/4$	$\theta^2/4$	$\theta^2/4$	$(1-\theta)\theta/4$	$\theta/2$
WH	$(1-\theta)\theta/4$	$\theta^2/4$	$\theta^2/4$	$(1-\theta)\theta/4$	$\theta/2$
WL	$(1-\theta)^2/4$	$(1-\theta)\theta/4$	$(1-\theta)\theta/4$	$(1-\theta)^2/4$	$(1-\theta)/2$
Marginal	$(1-\theta)/2$	$\theta/2$	$\theta/2$	$(1-\theta)/2$	1

Table 2: Stereotype

Table 2 denotes the probability that the stereotype θ assigns to the different type combinations. Obviously, when $\theta = 0.5$ both men and women are seen as equally likely to have high conflict payoff, while if $\theta < 0.5$ women are seen as less likely. In the first case, the same probability of $0.25/4$ is assigned to each type combination, while in the latter the distribution is skewed: with $\theta = 0.2$, for instance, $p(MH,MH) = p(WL,WL) = (1-\theta)^2/4 = 0.64/4$, and $p(ML,ML) = p(WH,WH) = \theta^2/4 = 0.04/4$.

Harsanyi and Selten (1972) propose a solution based on the expected payoff for each player type, which they call the Generalized Nash Product (GNP). The GNP is described by

$$arg \max_{d_i \geq c_i, d_j \geq c_j} \Pi_{i=1}^{T} (d_i - c_i)^{p_i} \tag{2}$$

where d_i and c_i denote expected payoffs for each type, such that the maximization described in equation 2 takes place over the probability with which each possible type occurs as well as the expected payoff that each type gets in case of occurrence. The solution to this expression is unique, equivalent to the original solution by Nash. This uniqueness allows us to derive hypotheses for our analysis.

[6]The assumption that half of the population is male and the other half is female matches the distribution in the general population, as well as in our sample. The assumption on conflict payoff follows naturally if the boundary between high and low payoff is defined as the median.

Table 1 describes the case of ignorance on both sides, a situation that we will call anonymous (AN). The opposite case is full disclosure (FD) of information about identities. Under FD, players know the gender of the opponent but not the precise value of the counterpart's characteristics. That is, a player knows whether the opponent is W or M, but not whether s/he is of type H or L. Thus, the extent of uncertainty is limited compared to AN, but not fully eliminated. The in-between case is constituted by a situation of one-sided information (semi-disclosure – SD). Here one player acts as if in AN, while the other has information comparable to FD.

Hypothesis 1 (Same Gender) *Same gender pairs divide the resource according to the equal split, independently of the disclosure of identities.*

Hypothesis 2 (Mixed Gender) *Mixed gender pairs divide the resource according to the equal split in AN and SD, but not in FD. In FD, division depends on* θ*, where under* $\theta > 0.5$ *the woman gets more than the man, and under* $\theta < 0.5$ *the opposite holds true.*

We see that, while the distribution of R for mixed gender pairs depends on the value of θ, agreement prevails as long as $\theta_i = \theta_j$. That is, as long as both players act according to the same stereotype there is convergence, and agreement prevails. Only if $\theta_i \neq \theta_j$ can inefficiency occur.

Hypothesis 3 (Efficiency) *Inefficiency can occur if and only if the two players in a dyad act according to different stereotypes.*

2.2. Experiment

To empirically analyse bargaining behaviour, we implemented the Nash demand game in a field laboratory exploiting variation along two dimensions: (1) variation on the gender combination of the bargaining partners in a pair, where in a dyad there could either be two women (WW), two men (MM), or a man and a woman (mixed); and (2) variation on the information participants received about the identity of their opponent: both participants in a pair had information on the other's identity (a so-called full disclosure treatment – FD), only one of them was informed about the other's identity (what we call a semi-disclosure treatment – SD), or neither was informed about the other's identity (anonymity treatment – AN). The amount of information disclosed to either partner was common knowledge.

It is the combination of these two dimensions that allows us to precisely map the effect of varying information about the opponent's gender. By comparing changes in identity disclosure across gender combinations, we can analyse whether men and women react differently to knowing their opponent's gender. We are mainly interested in the comparison between FD and AN to analyse how knowledge of opponent's gender influences behaviour.

To disentangle the effect of knowing the other's gender from knowing that the other knows one's own gender, we additionally compare behaviour in FD and SD. Through the distinction between AN–FD comparisons and SD–FD comparisons, our design allows us to disentangle the effect of two-sided information disclosure from that of one-sided information disclosure. When both players' identities are disclosed, both the gender of the other participant and the knowledge that the other participant is informed about one's own gender influence decisions. On the contrary, when only one side is informed the second aspect disappears, reducing reputation effects and thereby potentially altering behaviour. Based on our setup, we can analyse whether this change in reputation effects influences men and women differently, and whether that difference in turn depends on the gender of the opponent.

Each participant took one decision in the AN treatment, and two decisions in either the SD or FD treatment. The order of the disclosure treatments was randomized and participants were randomly re-matched into new pairs between each decision. In the SD treatment, it was assigned at random which of the two participants was informed and which was not. The AN–FD comparison thus constitutes a within-subject comparison, while the SD–FD comparison is between subject. The between-subject comparison relies on the random assignment of treatments, while the within-subject comparisons rely on a fixed effects approach. That is, gender effects in AN–FD comparisons are identified by within-subject changes in behaviour that respond to changes in the gender matching and the identity disclosure, while gender effects in SD–FD comparisons are identified thanks to the randomized assignment of subjects into treatments.[7]

[7]This mix of within and between dimensions results largely from practical concerns. On the one hand, we aimed to keep the length of sessions as short as possible while allowing for a large number of observations, and on the other, we tried to avoid spillover effects from previous interactions to the largest possible extent given constraints on subject numbers.

The resource available was 16,000 UGX (roughly two days' wages for the average participant), such that demands could be stated freely as a number between 0 and 16,000. Demands were incentivized by telling the subjects that, at the end of the experiment, one of their decisions would be selected at random to be paid out. This selection was done through a random draw executed in public by one of the participants. For each decision, we elicited both the participants' demands and their beliefs about the other's demand. To avoid confusion, belief elicitation was not incentivized. Beliefs were elicited with a simple question that asked a participant directly for the amount that s/he expected the other to demand. To record demands and beliefs, as well as to display information on the other's identity, individual decision cards were used. A separate card was used for each new decision, and only after the previous decision card was returned to the experimenters. On the card, the participant's own name and picture was displayed and, if s/he was supposed to also have information on the other's identity, also the picture and name of the bargaining counterpart.

Before the experiment started, instructions were read out loud and control questions were asked in private. In case further clarifications were needed, participants were invited to ask the experimenters by raising their hand while remaining at their assigned seat. Participants were seated at sufficient distance from each other and instructed not to talk to their neighbours during the experiment. Payments were received in private at the end of the experimental session. Payments received as well as any decisions made by the participants were treated confidentially. Participation was entirely voluntary, and participants were free to leave the experiment at any point. All this was made known to the participants at the beginning of the session.

As the location for the study we selected the Sironko district in eastern Uganda. This district is divided into five sub-counties. We randomly chose two to eight villages per sub-county, such that we were able to include 24 non-neighbouring villages while ensuring that the population in our sample was representative regarding basic socioeconomic characteristics of our study area. The selected villages are small-scale communities with 10 to 34 households. We randomly chose one of the adults from each household within the selected villages to participate in our study. In total, we conducted 14 sessions, each consisting of participants from two different villages. As village size varied some villages were spread out over more than one session to keep session size at a manageable level. On average, each session took about two hours and included roughly 18 participants (min. = 13, max. = 26).

2.3. Survey

A month before the experimental sessions, we administered a survey with the goal of capturing important characteristics of the participants and their households.[8] To that end, we asked questions on wealth, age, education, gender, ethnicity, religion, occupation, social ties, trust, agreeableness, and risk aversion. To elicit household wealth we asked a variety of questions on the characteristics of the home a family lives in, their access to electricity, and how much livestock it owns. Based on these questions we constructed a wealth index, given by the first component of a principal component analysis. Education was measured in years of schooling, while occupation and religion are categorical variables. To elicit social ties participants were shown the photograph and name of each other participant from their own village.[9]

We further asked a variety of questions regarding how trustworthy participants perceived others to be. Specifically, we asked the respondents whether they thought that most people can be trusted, whether most people would try to take advantage if they had the chance to, and if most of the time people try to be helpful. The first component of a principal component analysis based on these questions constitutes our index for trust (Dohmen et al., 2008, 2012; Altmann et al., 2008). Agreeableness is based on the questions from the Big Five questionnaire (Costa and McCrae, 1992), including for instance whether one tries to forgive and forget when insulted, whether one is ready to fight back if somebody else starts a fight, and whether one hesitates to express anger even if it's justified. Risk aversion was captured through a self-reported score, detailing whether respondents take risks a lot, take risks but not a lot, avoid risks but not a lot, or avoid risks a lot (Dohmen et al., 2005, 2012). Before asking the questions on these psychological measures we made very clear that there were no right or wrong answers.

[8]To administer the survey a portable data entry device was used.

[9]The main advantage of this elicitation approach through individual pictures is that reporting bias depending on the size of a respondent's network can be avoided. More connected people might otherwise be more likely to forget a link, but by showing pictures each participant gets the same cues to allow him/her to remember all his/her connections.

3. Descriptives

This section describes our sample on important socioeconomic characteristics captured by the survey, as well as the behavioural outcomes of the experiment. To label the two participants within a dyad we use the terms *ego* and *alter*, denoting *own* and *other*. We focus on differences by gender of ego and, for pair-based outcomes, the pairing of ego's and alter's gender. Our sample consists of 248 participants from 24 different villages. There are about equal numbers of men and women, with 46.37% men and 53.63% women. Table 3 presents the most important results from the survey, disaggregated by gender. Based on a two-sided Mann-Whitney test, we find that women are significantly more risk averse than men, while men are significantly more trusting than women (at 5% and 1% level, respectively). Further, women in our sample are on average three years older and have had two years less schooling than men. A Mann-Whitney test indicates that the difference in schooling is statistically significant at the 1% level.

	Women			Men			
	N	mean	st.dev.	N	mean	st.dev.	p-value^{+}
Risk	133	2.128	.900	115	1.887	.866	0.024
Agree	133	-.024	1.61	115	-.007	1.81	0.853
Trust	133	-.255	1.28	115	.1640	1.28	0.002
Wealth	133	-.356	1.90	115	.0018	2.05	0.105
Age	133	43.62	14.4	115	40.29	14.1	0.063
Education	133	4.947	3.58	115	6.807	3.37	0.000

$^{+}$ two-sided p-value of a Mann-Whitney test

Table 3: Participants

Data from the survey further indicate that all participants have the same ethnicity, ensuring that there are no in-group/out-group effects based on ethnic divisions. Most participants are Catholic (46.77%), with the second biggest group belonging to Anglicanism (31.05%), and minor parts declaring themselves as belonging to Islam, as born-again Christians, or as Seventh-Day Adventists. An overwhelming majority works on their own household farm (86.12%), with the rest being distributed, in decreasing order, between running a business, doing non-farming wage work, providing farm labour on somebody else's farm, taking care of household chores, looking after livestock for others, and studying.[10]

[10]Table B.1 in the Appendix provides further information on the characteristics of the dyads that were paired within the experiment.

As outlined in section 2.2, we conducted our experiment based on three different disclosure treatments, where in AN neither, in SD one, and in FD both of the participants were informed about the other's identity. Table B.2 shows that the sample is balanced across the between-subject treatments, SD and FD.

Table 4 outlines the demands made and beliefs held by men and women depending on the respective disclosure treatment. We see that, independently of disclosure treatment and gender, demands are considerably higher than beliefs.[11] In none of the disclosure treatments do gender differences as such show up as significant, according to a Mann-Whitney test. Additionally, Wilcoxon signed-rank tests show that there is no average difference in either demands or beliefs between AN and FD.

	Women			Men			
	N	mean	st.dev.	N	mean	st.dev.	p-value[+]
a) Demands							
AN	133	8541.35	2244.56	115	8617.39	2444.41	0.664
SD	82	8600	2233.36	58	8396.55	2183.99	0.616
FD	109	8550.46	2088.27	106	8834.91	1949.02	0.294
b) Beliefs							
AN	133	6293.23	2238.72	115	6617.39	2360.43	0.109
SD	82	6418.29	2346.90	58	6681.03	2133.07	0.291
FD	109	6495.41	2048.59	106	6872.64	1902.46	0.109
c) Precaution							
AN	133	1165.41	2355.46	115	765.22	1911.78	0.134
SD	82	981.71	1718.54	58	922.41	2247.42	0.436
FD	109	954.13	1553.88	106	292.45	804.36	0.000

[+] two-sided p-value of a Mann-Whitney test

Table 4: Demands, Beliefs, and Precaution

Interestingly, in the third panel, which compares the difference between the available resource of 16,000 UGX and the sum of one's demand and belief (which we label as 'precaution'), we find a strong and highly significant difference between men and women in the FD treatment. In

[11]As one decision was made by each participant in AN, the number of decisions reported for AN corresponds to the number of participants in table 3. Additionally, each participant makes two decisions in either SD or FD. That is, a section of the participants makes two decisions in FD, while the other section makes two decisions in SD. In FD, each decision is counted at the individual level. In SD, however, this depends on the role assignment. In line with our research question, we are interested only in those decisions made by participants that were assigned the role of the informed player. Due to this restriction, the number of decisions made in SD and FD together (N=355) is larger than that in AN (N=248), but not quite double.

the AN and SD treatments, on the contrary, differences are not significant. Wilcoxon signed-rank tests show that the difference between AN and FD is not statistically significant, either for men or for women (two-sided p-value = 0.283 and 0.778). For a comparison of SD and FD, on the contrary, Mann-Whitney tests show that the difference for women is not significant (two-sided p-value = 0.632), while the difference for men is marginally significant (two-sided p-value = 0.052).

The combination of demands in a pair determines the efficiency of the bargaining outcome. Either the full amount of resources available is claimed, leading to the most efficient outcome, or, alternatively, the outcome is inefficient as resources are wasted by over-claiming (which generates conflict) or under-claiming (which leaves resources on the table). Table 5 indicates the frequency of conflict and the average amount of resources unclaimed. We focus our dyadic analysis on the comparison of AN and FD, that is, on either both players in the dyad having information about each other's identities or not. In AN, there are 34 decisions made in WW pairs, 21 in MM pairs, and 57 in mixed pairs; and in FD 31 decisions are made in WW pairs, 28 in MM pairs, and 39 in mixed pairs. Table 5 shows that, according to Mann-Whitney tests, there is no statistically significant difference in terms of conflict occurrence and extent of resource waste between AN and FD.

Comparing across gender combinations, a Kruskal-Wallis test shows that there is a marginally significant average difference between gender pairs regarding resource waste (two-sided p-value = 0.090, chi-squared with ties = 4.818 with 2 d.f.), but not regarding conflict (two-sided p-value = 0.186, chi-squared with ties = 3.366 with 2 d.f.). A closer look at gender differences in each treatment separately shows that the effect for waste is induced by a marginally significant difference in FD. Further pairwise testing for resource waste in FD through a Dunn's test indicates that it is mainly WW pairs that behave differently from mixed pairs (two-sided p-value = 0.045 for WW against mixed, 0.721 for MM against mixed, and 0.275 for WW against MM). This suggests that women behave differently when they know that they are in a female-only pair, compared to being in a mixed pair.

Overall, the descriptive analysis shows that while individual demands and beliefs do not depend on disclosure of identity or gender, there seems to be a difference between men and women in perceived riskiness of the situation which translates into differences in the way that demands are

	AN			FD			p-value++	
	N	Conflict	Waste	N	Conflict	Waste	Conflict	Waste
WW	34	41.18%	764.71	31	41.94%	709.68	0.951	0.627
MM	21	47.62%	809.52	28	50.00%	392.86	0.870	0.567
Mix	57	52.63%	456.14	39	61.54%	294.87	0.390	0.497
p-value+		0.573	0.521		0.260	0.092		

+ two-sided p-value of a Kruskal-Wallis test, and ++ of a Mann-Whitney test.

Table 5: Inefficiency

conditioned on beliefs. Compared to men, women appear to draw larger confidence intervals around their estimate of the other's demand, specifically when identities are disclosed. This difference in turn appears to influence efficiency of outcomes, in the sense of resource waste being larger for female-only pairs. This is suggestive of a pattern that we will investigate in more detail based on a regression analysis in the next section.

4. Analysis

We now take a closer look at the influence of gender on the outcomes in the demand game, and how it interacts with identity disclosure. We start by analysing gender effects in the likelihood of conflict and the amount of unclaimed resources at the dyad level, that is, in the efficiency of the bargaining outcome. Thereafter, we move to the individual level to analyse how gender influences individual demands and how it interacts with identity disclosure and beliefs about the demands of the paired person.

4.1. Efficiency

Inefficiency in our demand game can occur in two different ways: via over-claiming (which we label 'conflict') which destroys resources, and under-claiming, by leaving part of the resource on the table. We look at the influence of gender combinations in both AN and FD on each of the two inefficiencies. To study conflict, we use the following regression:

$$y^*_{ij} = \beta_0 + \beta_1 \text{ WW} + \beta_2 \text{ MM} + \beta_3 \text{ B\_sum} + \beta_4 \text{ B\_dif} + \beta_5 \text{ X}_{ij} + \varepsilon_{ij} \quad (3)$$

where y^*_{ij} is a latent variable which is linked with y_{ij} through a logit link function. Equation 3 then denotes a logistic regression with $y_{ij} = 1$ if conflict occurs between bargaining partners i and j. WW and MM are dummies equal to 1 if both players are female and male, respectively, the omitted category being a mixed gender pair. We additionally include beliefs. Given the dyad as unit of analysis, we consider both the sum of the two bargaining partners' beliefs, B_sum, and their absolute difference, B_dif. X_{ij} denotes a vector of additional controls that we expect to correlate with both the gender combinations and the likelihood of conflict. Specifically, we control for risk attitude, socioeconomic factors (the sum and absolute difference in wealth, age, education, and whether participants have the same religion and same occupation), psychological factors (sum and absolute difference in trust and agreeableness), and for whether participants have a social tie. We also include a control for experimenter effects. The term ε_{ij} captures any remaining idiosyncratic error. We use robust standard errors to adjust for potential dependencies at the session level.

	AN				FD			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
WW	-0.576	-0.769*	-0.799	-0.799	-0.781	-3.005***	-11.65*	-11.65
	(0.492)	(0.415)	(0.518)	(3.239)	(0.619)	(0.613)	(6.861)	(1456.2)
MM	-0.249	-0.0638	-0.141	-0.141	-0.529	-0.431	-1.682	-1.682
	(0.557)	(0.518)	(0.684)	(2.180)	(0.750)	(0.838)	(2.577)	(985.3)
B_sum		-0.368***	-0.379***	-0.379		-1.172***	-3.233*	-3.233
		(0.121)	(0.107)	(2.586)		(0.282)	(1.964)	(420.2)
B_dif		0.0835	0.0263	0.0263		0.259	0.625	0.625
		(0.121)	(0.142)	(0.645)		(0.335)	(0.585)	(336.7)
Constant	-0.162	4.698**	4.378	4.378	0.783*	17.26***	23.71**	23.71
	(0.361)	(1.913)	(3.878)	(87.12)	(0.411)	(4.400)	(9.281)	(5414.9)
Observations	112	112	110	110	98	98	97	97
Controls	No	No	Yes	Yes	No	No	Yes	Yes
Bootstrap	No	No	No	Yes	No	No	No	Yes

Logit regression. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. B_sum and B_dif are actual beliefs divided by 1000. All models control for experimenter FE. Models 3, 4, 7, and 8 control for risk attitude, socioeconomic factors (the sum and absolute difference in wealth, age, education, and whether participants have the same religion and same occupation), psychological controls (sum and absolute difference in trust and agreeableness), and whether participants have a social tie. Models 4 and 8 are based on a bootstrap (with 100 repetitions) at session level.

Table 6: Conflict

The estimates of this specification are presented in table 6. The first four models present the results for AN, and models 5–8 show results for FD. Model 1 says that neither WW nor MM pairs behave differently from mixed pairs in AN. Further testing through a Wald test shows that the same holds true for a comparison between MM and WW (two-sided p-value = 0.653). When beliefs are introduced in model 2, WW becomes marginally significant. The latter suggests that, conditional on beliefs, women are less likely to enter into conflict when matched with each other than when matched with male counterparts. The coefficient of MM is not significant, implying that male-only pairs are as likely to enter into conflict as mixed gender pairs. Further testing shows that the likelihood of conflict is also not different between MM and WW (two-sided p-value = 0.287). The coefficient of B_sum, the sum of beliefs of the two participants, is negative and statistically significant at the 1% level. This means that a higher sum of beliefs makes the occurrence of conflict less likely. On the contrary, the difference of beliefs, B_dif, does not have an influence on conflict occurrence. When controls are introduced in model 3, the effect of B_sum remains robust, while the marginally significant effect of WW disappears.

Model 5 presents the estimates of the basic specification for FD. We see that, as in AN, neither WW nor MM is different from Mix, and also the difference between MM and WW is not significant (two-sided p-value = 0.576). However, when beliefs are introduced in model 6 WW shows up as negative and strongly significant. The coefficient of MM is not significant, but the comparison between MM and WW is (two-sided p-value = 0.021). This suggests that female-only pairs incur less conflict than both mixed and male-only pairs, while there is no difference between the latter two. As in AN, the coefficient of B_sum is negative and statistically significant at the 1% level, while B_dif does not have an influence on conflict occurrence.

The inclusion of controls in model 7 decreases the significance both of the effect of beliefs, B_sum, and of gender pairing. WW is only marginally significant, and the difference between MM and WW is lost (two-sided p-value = 0.238).

We now turn to the extent of inefficiency caused by the amount of resources a pair of bargaining parties leaves on the table. For this, we use an OLS regression with the amount of unclaimed resources as dependent variable, and the same independent variables that we used in the analysis of conflict. Table 7 presents the results.

	AN				FD			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
WW	314.5	309.1	289.3	289.3	407.9*	460.9***	502.6***	502.6***
	(275.4)	(268.9)	(298.8)	(351.1)	(168.5)	(46.47)	(101.5)	(141.4)
MM	358.7	334.6	490.1	490.1	114.8	82.35	425.3	425.3*
	(547.5)	(523.5)	(574.9)	(629.1)	(181.4)	(136.6)	(285.1)	(240.2)
B_sum		20.50	37.45	37.45		133.5***	156.6***	156.6***
		(71.75)	(52.92)	(56.61)		(26.24)	(30.96)	(36.96)
B_dif		77.76	101.5	101.5		27.86	-10.27	-10.27
		(61.20)	(60.98)	(64.61)		(66.92)	(36.20)	(46.91)
Constant	438.7*	6.153	1462.4	1462.4	198.7	-1681.1**	-697.7	-697.7
	(229.8)	(1124.0)	(1320.9)	(1222.7)	(125.5)	(470.1)	(1623.5)	(1535.9)
Observations	112	112	110	110	98	98	97	97
R^2	0.018	0.033	0.173	0.173	0.052	0.289	0.436	0.436
Controls	No	No	Yes	Yes	No	No	Yes	Yes
Bootstrap	No	No	No	Yes	No	No	No	Yes

OLS. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. B_sum and B_dif are actual beliefs divided by 1000. All models control for experimenter FE. Models 3, 4, 7, and 8 control for risk attitude, socioeconomic factors (the sum and absolute difference in wealth, age, education, and whether participants have the same religion and same occupation), psychological controls (sum and absolute difference in trust and agreeableness), and whether participants have a social tie. Models 4 and 8 are based on a bootstrap (with 100 repetitions) at session level.

Table 7: Unclaimed Resources

Table 7 shows an interesting difference between AN and FD. In the AN (models 1–4), neither gender pairing nor beliefs seem to influence the amount of resources left on the table. In FD, however, we observe a dependency of unclaimed resources on both gender pairing and beliefs. In Model 5 the coefficient of WW is marginally significant, suggesting that the amount left unclaimed is larger for female-only pairs than for mixed gender pairs. This difference becomes highly significant when beliefs are introduced in model 6. Further, the difference between MM and WW also becomes significant (two-sided p-value = 0.025). This implies that, when beliefs are controlled for, female-only pairs behave differently not only from mixed pairs but also from male-only pairs. The coefficient of B_sum is positive and highly significant, suggesting that a higher sum of beliefs leads to a larger amount of unclaimed resources. As for conflict occurrence, the difference in beliefs has no influence. When controls are added in model 7, the effects of WW and B_sum stay highly significant, but the difference between MM and WW disappears again (two-sided p-value = 0.828). We summarise the main empirical findings in a first result.

Result 1. *In the FD treatment female-only pairs are less likely to enter into conflict compared to mixed gender pairs, and leave more resources unclaimed. In the AN treatment gender pairing* *has no effect.*

4.2. Demands

We now proceed to analyse individual demands as the underlying reason for the occurrence of conflict and resources left on the table. To understand which precise mechanisms determine the allocation of scarce resources it is crucial to know how demands differ for men and women depending on the gender of the bargaining counterpart. To look into this, we run regressions based on sub-samples defined by the gender of ego and alter. We start by considering the sub-samples of female and male egos, respectively, and analyse whether their demands are influenced by the gender of the person they are matched with. We use the following specification:

$$
\begin{aligned}
y_{ij} = \beta_0 + \beta_1\ \mathrm{FD}\times\mathrm{G}_i\mathrm{M} + \beta_2\ \mathrm{FD}\times\mathrm{G}_i\mathrm{W} \\
+ \beta_4\ \mathrm{AN}\times\mathrm{B} + \beta_5\ \mathrm{FD}\times\mathrm{G}_i\mathrm{M}\times\mathrm{B} + \beta_5\ \mathrm{FD}\times\mathrm{G}_i\mathrm{W}\times\mathrm{B} \\
+ \beta_6\ \mathrm{X}_j + \mu_i + \varepsilon_{ij}
\end{aligned}
\tag{4}
$$

with y_{ij} being the demand of i (ego) when paired with j (alter). G_i is substituted by M for the analysis of the sub-sample consisting of male egos, and by W in the analysis of female egos. FD$\times G_i$M indicates the effect of ego knowing that alter is male versus not knowing, and FD$\times G_i$W gives the effect of ego knowing that alter is female versus not knowing. AN$\times$B denotes the influence of beliefs on decisions in AN, while FD$\times$B denotes the same in FD. We subsequently split FD$\times$B up into FD$\times G_i$M$\times$B and FD$\times G_i$W$\times$B. This allows us to gain a better understanding of differences in the way that beliefs are incorporated into the decision-making process, depending on the gender of alter. μ_i captures all individual observable and unobservable characteristics of ego that remain fixed between treatments, including gender. We further include the same socioeconomic controls as in the dyadic analysis, but now measured at the individual level. As ego's individual characteristics are fully captured by μ_i, only alter's characteristics are added. That is, we control for alter's wealth, age, religion, education, occupation, risk attitude, trust and agreeableness, and whether participants have a social tie. ε_{ij} captures any remaining idiosyncratic error. We use robust standard errors to adjust for potential dependencies at the session level.

The estimation results are presented in table 8. In the sample of male egos (upper panel), model 1 shows that knowing the identity of alter does not matter for men: neither FD×MM nor FD×MW are significantly different from AN. Further, FD×MM is not different from FD×MW (two-sided p-value = 0.238), indicating that the gender of alter does not matter for the demands of male egos. This is robust to a control for beliefs in model 2. The effect of beliefs is highly significant in both AN and FD. There is no difference between AN and FD in the way that beliefs influence men's decisions (two-sided p-value = 0.965 for AN×B against FD×B). When we disaggregate FD×B by gender of alter in model 3, we see that the highly significant negative coefficient of FD×B survives for both FD×MM×B and FD×MW×B. While the coefficient is slightly more negative for FD×MM×B, the difference is not significant (two-sided p-value = 0.501), and neither are the differences between FD×MM×B and AN×B or FD×MW×B and AN×B (two-sided p-value = 0.748 and 0.576, respectively). This remains robust to the introduction of controls in model 4.

For the sample of female egos (lower panel), we find a different picture. While FD×WW is not different from AN in model 1, FD×WM is positive and marginally significant. This indicates that getting to know the gender of the opponent has a larger influence if the counterpart is male. The difference between FD×WW and FD×WM, however, is not significant (two-sided p-value = 0.436). Thus, given that the gender of the opponent is known, there is no difference between the counterpart being male or female. The introduction of beliefs in model 2 changes this. Conditional on beliefs, both FD×WW and FD×WM are positive and significant at the 1% level. A marginal difference between FD×WW and FD×WM (two-sided p-value = 0.090) suggests that, conditional on beliefs, women demand more from a male counterpart than from a female counterpart, given that identities are disclosed. Beliefs are highly significant in FD but not in AN, implying that women only condition their demands on their beliefs when the identity of their counterpart is revealed.

In model 3, separating the influence of beliefs by alter's gender decreases the significance of FD×WM and makes the difference between FD×WW and FD×WM disappear (two-sided p-value = 0.904), while not changing the significance level of FD×WW. The coefficients of both FD×WW×B and FD×WM×B are highly significant, but not distinguishable from each other (two-sided p-value = 0.481). The difference between FD×WM×B and AN×B is marginally significant (two-sided p-value = 0.065) and that between FD×WW×B and AN×B is highly

Male ego	(1)	(2)	(3)	(4)	(5)
FD x MM	40.03	-11.95	48.97	379.2	379.2
	(156.9)	(258.3)	(286.2)	(450.0)	(778.1)
FD x MW	-419.1	21.31	-272.9	208.7	208.7
	(319.9)	(170.3)	(487.6)	(726.3)	(1129.6)
AN x B		-1.011***	-1.015***	-0.986***	-0.986***
		(0.0148)	(0.0175)	(0.0300)	(0.0571)
FD x B		-1.012***			
		(0.0398)			
FD x MM x B			-1.025***	-1.034***	-1.034***
			(0.0437)	(0.0483)	(0.0878)
FD x MW x B			-0.973***	-1.021***	-1.021***
			(0.0640)	(0.0862)	(0.145)
Constant	8791.9***	15537.5***	15564.0***	15542.1***	15542.1***
	(72.66)	(98.57)	(106.9)	(294.8)	(528.4)
Observations	221	221	221	219	219
R^2	0.015	0.857	0.858	0.870	0.870
Female ego	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
FD x WW	8.691	2101.9***	2235.4***	2250.1***	2250.1***
	(411.6)	(683.3)	(623.6)	(567.1)	(779.5)
FD x WM	339.2*	2580.9***	2360.0**	2426.3**	2426.3**
	(179.9)	(811.4)	(1073.7)	(1092.7)	(1112.7)
AN x B		-0.245	-0.243	-0.236*	-0.236*
		(0.145)	(0.142)	(0.125)	(0.123)
FD x B		-0.571***			
		(0.125)			
FD x WW x B			-0.591***	-0.571***	-0.571***
			(0.141)	(0.119)	(0.141)
FD x WM x B			-0.537***	-0.541***	-0.541***
			(0.109)	(0.143)	(0.149)
Constant	8491.1***	10030.2***	10020.5***	10677.5***	10677.5***
	(127.9)	(916.4)	(901.9)	(831.6)	(1074.4)
Observations	244	244	244	240	240
R^2	0.013	0.341	0.342	0.399	0.399
Controls	No	No	No	Yes	Yes
Bootstrap	No	No	No	No	Yes

Linear panel regressions with individual FE for ego. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. Models 4 and 5 control for alter's wealth, age, religion, education, occupation, risk attitude, trust, and agreeableness, as well as for whether participants have a social tie. Model 5 additionally performs a bootstrap at session level.

Table 8: Demands by Ego's Gender (AN–FD)

significant (two-sided p-value = 0.004). This says that women respond much more strongly to their beliefs when knowing that they are paired with a woman (and slightly more strongly when knowing that they are paired with a man) than when uninformed about the identity of the opponent. Taken together with the insignificant difference between FD×WW×B and FD×WM×B, this suggests that the strongest change in demands is induced by identity disclosure itself. The effects observed in model 3 remain robust to the introduction of controls in model 4, with the exception of AN×B, which is negative and marginally significant. We summarise these observations in a second result.

Result 2. *For women, the effect of their beliefs is stronger in the FD treatment than in the AN treatment, and conditional on their beliefs women demand more in the FD treatment. For men, beliefs have a similarly strong effect in both treatments, and conditional on their beliefs their demands do not depend on the identity disclosure.*

The statistical analysis so far has focused on the gender of alter. To test whether individual demands depend on the gender of ego, we need to pool male and female egos. To do this, we disaggregate the sample along alter's gender. That is, we consider male and female alters separately, and analyse whether the way that ego behaves towards them depends on ego's own gender. Each sub-sample thus includes decisions made by both male and female egos, but only either male or female alters. The specification used is identical to equation 4, except for the gender pairings now denoting MM and WM ($G_j = \mathrm{M}$) for male alters, and WW and MW ($G_j = \mathrm{W}$) for female alters. Further, the individual fixed effects μ_i turn into μ_j as denoting alter (instead of ego) fixed effects. As individual level controls, ego variables are added:

$$\begin{aligned} y_{ij} = \beta_0 &+ \beta_1\ \mathrm{FD{\times}MG}_j + \beta_2\ \mathrm{FD{\times}WG}_j \\ &+ \beta_4\ \mathrm{AN{\times}B} + \beta_5\ \mathrm{FD{\times}MG}_j{\times}\mathrm{B} + \beta_5\ \mathrm{FD{\times}WG}_j{\times}\mathrm{B} \\ &+ \beta_6\ \mathrm{X}_i + \mu_j + \varepsilon_{ij} \end{aligned} \tag{5}$$

Table 9 displays the results. In the sample of pairs with male alters (upper panel), model 1 shows that none of the coefficients of FD×MM and FD×WM is statistically significant, and neither is the difference between the two (two-sided p-value = 0.325). These results are robust to the introduction of beliefs in model 2. Beliefs are highly significant in both AN and FD, and there is no statistically significant difference between AN×B and FD×B (two-sided p-value = 0.201). When we interact FD×B with the gender of ego (model 3), we observe that both FD×MM×B and FD×WM×B are highly significant. The difference between these coefficients is marginally significant (two-sided p-value = 0.090), suggesting that men and women condition their demands on their beliefs to different extents if they know they are paired with a man. The difference between FD$\times$WM$\times$B and AN$\times$B is not significant (two-sided p-value = 0.700), while the difference between FD$\times$MM$\times$B and AN$\times$B is marginally significant (two-sided p-value = 0.054). This suggests that men respond more strongly to their belief when they know that their counterpart is a man, while women do not. When controls are introduced in model 4, the differences between FD$\times$MM$\times$B and FD$\times$WM$\times$B (two-sided p-value = 0.012) and FD$\times$MM and FD$\times$WM (two-sided p-value = 0.006) gain in significance.

As for male alters, model 1 of the lower panel shows that for the sample of female alters there is no direct effect of FD on demands and, further, that there is no difference between FD$\times$WW and FD$\times$MW (two-sided p-value = 0.389). However, when beliefs are introduced in model 2, the difference between FD$\times$WW and FD$\times$MW becomes significant (two-sided p-value = 0.042). This suggests that men demand more from a woman than a woman does, given that identities are disclosed. Beliefs are highly significant both in AN and FD, and the difference between AN$\times$B and FD$\times$B is not significant (p-value 0.508). When controlling for FD$\times$WW$\times$B and FD$\times$MW$\times$B, AN$\times$B retains its significance and both FD$\times$WW$\times$B and FD$\times$MW$\times$B are negative and highly significant. None of the differences is significant (two-sided p-value = 0.159 for FD$\times$WW$\times$B against FD$\times$MW$\times$B; 0.267 for FD$\times$WW$\times$B against AN$\times$B and 0.581 for AN$\times$B against FD$\times$MW$\times$B; 0.643 for FD$\times$WW against FD$\times$MW). Results in model 3 are robust to the introduction of controls in model 4. We summarise these findings in a third result.

Result 3. *When matched with a man in FD, the influence of beliefs on demands is stronger for men than for women and, conditional on their beliefs, men who are matched with a man demand more than women who are matched with a man. No such differences are identified for men and women who are matched with a woman.*

4.3. One-Sided Information

Identity disclosure in the analysis so far implied that both parties were informed about the other's identity. This in turn meant that any change in observed behaviour between AN and FD could be caused by two factors: (i) the direct response to knowing the other's identity, and (ii)

Male alter	(1)	(2)	(3)	(4)	(5)
FD x MM	126.6	1516.6	2181.8*	2541.1*	2541.1
	(346.2)	(1081.2)	(1126.2)	(1393.5)	(1959.5)
FD x WM	-619.5	1052.2	-897.9	-1475.5	-1475.5
	(518.4)	(1105.5)	(2225.3)	(2113.9)	(2451.7)
AN x B		-0.756***	-0.785***	-0.774***	-0.774***
		(0.122)	(0.136)	(0.176)	(0.214)
FD x B		-0.936***			
		(0.106)			
FD x MM x B			-1.062***	-1.099***	-1.099***
			(0.0749)	(0.0490)	(0.108)
FD x WM x B			-0.668***	-0.540**	-0.540**
			(0.214)	(0.192)	(0.217)
Constant	8795.7***	13693.9***	13881.7***	14097.5***	14097.5***
	(111.4)	(891.2)	(998.0)	(1071.1)	(1636.5)
Observations	217	217	217	215	215
R^2	0.025	0.687	0.711	0.747	0.747
Female alter	(1)	(2)	(3)	(4)	(5)
FD x WW	-38.84	225.4	490.2	-406.6	-406.6
	(628.4)	(674.1)	(677.0)	(635.3)	(1017.5)
FD x MW	349.6	1029.8	-99.24	264.1	264.1
	(316.4)	(793.1)	(1208.8)	(1558.4)	(1960.6)
AN x B		-0.662***	-0.660***	-0.681***	-0.681***
		(0.116)	(0.116)	(0.0907)	(0.0975)
FD x B		-0.735***			
		(0.0664)			
FD x WW x B			-0.777***	-0.650***	-0.650***
			(0.0841)	(0.0739)	(0.150)
FD x MW x B			-0.569***	-0.645***	-0.645***
			(0.0964)	(0.169)	(0.245)
Constant	8516.6***	12807.1***	12799.5***	13835.0***	13835.0***
	(216.2)	(772.4)	(773.2)	(907.0)	(940.7)
Observations	248	248	248	244	244
R^2	0.005	0.476	0.480	0.494	0.494
Controls	No	No	No	Yes	Yes
Bootstrap	No	No	No	No	Yes

Linear panel regressions with individual FE for alter. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. Models 4 and 5 control for alter's wealth, age, religion, education, occupation, risk attitude, trust, and agreeableness, as well as for whether participants have a social tie. Model 5 additionally performs a bootstrap at session level.

Table 9: Demands by Alter's Gender (AN–FD)

the indirect response to the knowledge that the other is also informed about one's own identity. To disentangle both effects we complement the analysis with a comparison between FD and a treatment with one-sided identity disclosure. In the latter setting, only the first factor could influence behaviour, such that a comparison between both settings allows us to identify the effect of the second factor.

To do so, we run similar regressions as before, but instead of comparing the FD treatment with the AN treatment, we compare the semi-disclosed (SD) treatment with the FD treatment. As this treatment comparison is a between comparison (subjects were allocated to only one of the two treatments), a fixed effects approach as used above is not applicable. Rather, our identification relies on the random assignment of treatments.[12] More specifically, we use the following regression specification:

$$\begin{aligned} y_{ij} = \beta_0 + \beta_1\ \mathrm{SD} + \beta_2\ \mathrm{Mix} + \beta_3\ \mathrm{SD}\times\mathrm{Mix} \\ + \beta_4\ \mathrm{B} + \beta_5\ \mathrm{SD}\times\mathrm{B} + \beta_6\ \mathrm{Mix}\times\mathrm{B} + \beta_7\ \mathrm{SD}\times\mathrm{Mix}\times\mathrm{B} \\ + \beta_8\ \mathrm{X}_i + \beta_9\ \mathrm{X}_j + \varepsilon_{ij} \end{aligned} \tag{6}$$

where the same gender pair in FD is the default category. We compare the mixed gender pair as denoted by Mix against the same-gender pair. As before, we split the samples, first by ego's gender, and then by alter's gender. For the sample of male egos, the specification translates into a comparison of MW against MM, for female egos into a comparison of WM against WW. For the sub-sample of male alters we compare WM against MM, and for female alters we compare MW against WW. After analysing the basic specification in model 1 we control for ego's beliefs in model 2 and interactions of beliefs, disclosure, and gender pairing in model 3. Model 4 controls for ego's and alter's characteristics other than gender.

Table 10 presents the results for male egos (upper panel) and female egos (lower panel). In both panels, the coefficients of SD as well as MW and WM, respectively, are not statistically significant. The coefficient of SD×MW in model 1 of the upper panel (male egos) is also not statistically significant, while in the lower panel (female egos) we do find a marginally significant effect of SD×WM. This suggests that women who are matched with a man demand more in SD than in FD, while this is not the case for women who are matched with another woman, or for male egos. We find that beliefs have a negative and significant effect for both male and female egos. The coefficient of SD×B is not statistically significant for either gender, indicating that there is no difference in the relevance of beliefs between FD and SD. When controls are added in model 4 of the lower panel, the positive coefficient of SD×WM becomes highly

[12]Table B.2 in the Appendix shows that both treatments are sufficiently balanced.

statistically significant. We further observe a negative and significant effect of SD$\times$WM$\times$B. This implies that women who are matched with a man react more strongly to their own beliefs in SD than in FD. No such effect is observed in the upper panel for male egos.

Table 11 presents the results for the sub-samples of male and female alters. In both panels, none of the effects are statistically significant in model 1. Once we control for individual beliefs (models 2 and onwards), we find important effects of the disclosure condition and the gender pairings.

The upper panel (male alters) shows a negative and statistically significant effect of WM, and a positive and marginally significant effect of SD$\times$WM. The effect of SD is negative and marginally significant. This suggests that in FD women demand less than men when paired with a man. However, men demand less from another man in SD than in FD, while women demand more from a man in SD than in FD. B is negative and highly significant. In model 3, WM$\times$B is positive and statistically significant, suggesting that beliefs have a weaker influence on women who are matched with a man than on men who are matched with another man. When controls are introduced in model 4, the coefficients of SD$\times$WM and WM$\times$B gain in statistical significance, while the coefficient of both SD$\times$B and SD$\times$WM$\times$B become also marginally significant. This signifies that women condition their demands more on their beliefs in SD, while men do the opposite.

In the lower panel (female alters), the only effect that persists across specifications is the negative effect of B. Further, there is a positive and statistically significant effect of MW in model 2. This suggests that, conditional on beliefs, men demand more from women than women demand from women. However, this effect disappears when further interactions of disclosure, gender pairing, and beliefs are included. We summarise the findings of this section in a fourth result.

Result 4. *When paired with a man, women demand less in FD than in SD, while men demand less in SD than in FD. Further, when matched with a man, men are less strongly influenced by their beliefs in SD than in FD, while women are more strongly influenced by their beliefs in SD than in FD.*

In comparing the results observed in this section to those observed for changes in two-sided information disclosure, we can deduce insights about the relative importance of the mere dis-

Male ego	(1)	(2)	(3)	(4)	(5)
SD	49.63	-3907.2	-4619.7	-5893.6*	-5893.6
	(744.0)	(2290.1)	(2918.6)	(3298.1)	(3647.1)
MW	-131.0	-148.9	-1405.0	-1233.8	-1233.8
	(484.3)	(167.8)	(879.0)	(795.5)	(2198.4)
SD x MW	-451.3	0.986	2662.7	3378.0	3378.0
	(677.7)	(363.6)	(4331.0)	(4491.8)	(5251.4)
B		-0.950***	-0.998***	-1.028***	-1.028***
		(0.0303)	(0.0306)	(0.0500)	(0.169)
SD x B		0.487	0.600	0.759	0.759
		(0.314)	(0.421)	(0.479)	(0.506)
MW x B			0.184	0.157	0.157
			(0.111)	(0.0997)	(0.309)
SD x MW x B			-0.388	-0.449	-0.449
			(0.595)	(0.628)	(0.730)
Constant	8623.5***	15571.7***	15910.3***	16953.3***	16953.3***
	(428.7)	(313.2)	(334.1)	(763.6)	(1352.7)
Observations	164	164	164	160	160
R^2	0.035	0.589	0.596	0.653	0.653
Female ego	(1)	(2)	(3)	(4)	(5)
SD	-307.6	-474.2	-1976.7	-1769.1	-1769.1
	(494.1)	(882.6)	(1453.6)	(1120.6)	(1328.4)
WM	-26.10	223.3	-454.6	-792.1	-792.1
	(384.5)	(241.8)	(1684.5)	(1093.6)	(1321.5)
SD x WM	1120.1*	349.5	3524.8	3889.1**	3889.1**
	(591.1)	(365.9)	(2157.7)	(1415.9)	(1637.6)
B		-0.731***	-0.758***	-0.678***	-0.678***
		(0.0604)	(0.0692)	(0.0675)	(0.114)
SD x B		0.0544	0.282	0.221	0.221
		(0.131)	(0.202)	(0.164)	(0.181)
WM x B			0.103	0.128	0.128
			(0.226)	(0.156)	(0.188)
SD x WM x B			-0.496*	-0.554**	-0.554**
			(0.280)	(0.187)	(0.216)
Constant	8702.9***	13408.0***	13584.4***	13548.3***	13548.3***
	(529.2)	(410.3)	(550.0)	(869.4)	(1234.5)
Observations	193	193	193	188	188
R^2	0.032	0.537	0.557	0.611	0.611
Controls	No	No	No	Yes	Yes
Bootstrap	No	No	No	No	Yes

OLS. All models control for experimenter FE. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. Models 4 and 5 control for alter's wealth, age, religion, education, occupation, risk attitude, trust, and agreeableness, as well as for whether participants have a social tie. Model 5 additionally performs a bootstrap at session level.

Table 10: Demands by Ego's Gender (FD–SD)

closure of identity, and the actual gender combinations. The comparison of AN and FD has shown a dominant disclosure effect, especially for female egos. The comparison of FD and

Male alter					
	(1)	(2)	(3)	(4)	(5)
SD	-24.31	-2329.7*	-4799.7	-6117.7*	-6117.7**
	(715.9)	(1278.9)	(2851.1)	(2957.0)	(2737.7)
WM	-341.0	-478.7**	-3068.2**	-3491.8**	-3491.8***
	(555.1)	(207.8)	(1364.0)	(1249.0)	(1291.3)
SD x WM	964.3	840.5*	6304.8*	8105.8**	8105.8**
	(805.3)	(408.4)	(3516.7)	(3730.2)	(3312.0)
B		-0.906***	-1.031***	-1.058***	-1.058***
		(0.0565)	(0.0300)	(0.0274)	(0.0602)
SD x B		0.214	0.609	0.807*	0.807*
		(0.151)	(0.411)	(0.454)	(0.428)
WM x B			0.386*	0.479**	0.479**
			(0.194)	(0.190)	(0.196)
SD x WM x B			-0.852	-1.132*	-1.132**
			(0.522)	(0.561)	(0.509)
Constant	8696.6***	15429.9***	16374.8***	17406.2***	17406.2***
	(486.6)	(408.0)	(329.3)	(737.7)	(906.9)
Observations	173	173	173	170	170
R^2	0.021	0.599	0.636	0.695	0.695
Female alter					
	(1)	(2)	(3)	(4)	(5)
SD	-236.0	-1846.8	-2043.0	-1424.8	-1424.8
	(461.5)	(1243.6)	(1327.7)	(1032.9)	(1163.4)
MW	201.3	600.6**	911.2	1226.9	1226.9
	(378.6)	(267.9)	(1331.1)	(907.1)	(1058.2)
SD x MW	-280.7	-461.4	321.5	171.9	171.9
	(461.2)	(371.6)	(3357.0)	(2618.5)	(2458.1)
B		-0.779***	-0.770***	-0.661***	-0.661***
		(0.0422)	(0.0702)	(0.0477)	(0.0859)
SD x B		0.285	0.314	0.208	0.208
		(0.174)	(0.187)	(0.153)	(0.165)
MW x B			-0.0461	-0.0857	-0.0857
			(0.159)	(0.127)	(0.144)
SD x MW x B			-0.109	-0.0928	-0.0928
			(0.444)	(0.329)	(0.314)
Constant	8625.1***	13455.1***	13384.3***	13193.6***	13193.6***
	(461.9)	(381.8)	(557.9)	(977.8)	(1185.6)
Observations	184	184	184	178	178
R^2	0.028	0.505	0.507	0.533	0.533
Controls	No	No	No	Yes	Yes
Bootstrap	No	No	No	No	Yes

OLS. All models control for experimenter FE. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. Models 4 and 5 control for alter's wealth, age, religion, education, occupation, risk attitude, trust, and agreeableness, as well as for whether participants have a social tie. Model 5 additionally performs a bootstrap at session level.

Table 11: Demands by Alter's Gender (FD–SD)

SD, on the contrary, allowed us to analyse the influence of gender combinations while keeping the information that ego has about the other's identity constant. This avoids a direct disclosure effect, while giving room for an analysis of gender pairing in the context of potential indirect disclosure effects. Interestingly, we have observed that women demand more under one-sided information, while men seem to demand more under two-sided information. This implies that gender combinations matter for indirect disclosure effects, but not for a direct disclosure effect. A potential reason for the relevance of gender combinations in indirect disclosure effects could be reputation concerns, which might induce women to demand less when their identity is known, while having the opposite effect on men. Taken together with the direct disclosure effect observed in the AN–FD comparison, this seems to suggest that a setting with two-sided information creates better bargaining outcomes for women than anonymous settings, even though the existence of reputation concerns mitigates this effect.

5. Conclusion

This study has employed a controlled bargaining experiment in the field to analyse how demands depend on the gender of the decision maker and on gender combinations. We randomly matched two participants to interact in the context of a Nash demand game (Nash, 1950). We exploited variation along two dimensions: the gender combination of the bargaining partners in a pair and the information participants receive about the identity of their opponent. We distinguished two parts of the effect of disclosing information: a direct part (information about the opponent) and an indirect part (knowledge that the opponent has information). When moving from AN to FD both parts occur simultaneously, but in a comparison between SD and FD only the indirect part persists.

Both parts of the disclosure effect can depend on own gender and on gender combinations. We analysed (i) the effect of identity disclosure as such, (ii) the role of gender combinations in the disclosure effect, and (iii) gender differences regarding the relevance of the indirect part. We have seen that, conditional on beliefs, there is a strong disclosure effect for women, independently of the opponent's gender. For men, on the contrary, there is no such disclosure effect. Further, for women the influence of beliefs on demands is stronger in FD than in AN. For men, beliefs have a similarly strong effect in both treatments. That is, identity disclosure has a strong effect for women regarding both demands and relevance of beliefs, but not for men.

When matched with a man in FD, the influence of beliefs on demands is stronger for men than for women and, conditional on their beliefs, men who are matched with a man demand more than women who are matched with a man. No such differences are identified for men and women who are matched with a woman. This suggests that men and women behave differently when in a pair with a man, but not when in a pair with a woman. This says that gender pairing matters for the strength of the disclosure effect.

However, men demand less from another man in SD than in FD, while women demand more from a man in SD than in FD. Men who are matched with a man condition less on their beliefs in SD, while women who are matched with a man condition more on their beliefs in SD. This suggests that there are strong gender differences regarding the influence of the indirect part of the disclosure effect, and that this difference depends on the gender of the opponent.

We saw further that, in FD, female-only pairs are less likely to enter into conflict compared to mixed gender pairs, and that they leave more resources unclaimed. In the AN treatment gender pairing has no effect on efficiency.

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Appendix

A. Experimental Instructions

You will be paired with one other person in this room. Both of you will be asked to make a decision. Your decision as well as the decision of the other person will determine how much you can earn. These earnings depend on your own decision and the decision of the other person. Your earnings will be determined in the following way. In each pair we have two persons: person 1 and person 2. There are 16000 UGX on the table [put 16 notes of 1000 UGX on the table] and person 1 and person 2 can demand as much as they want of it. If the total person 1 and person 2 demand is not higher than the money on the table (that is 16000 UGX) each will get the amount demanded.

However, if the total is more than 16000 UGX none will get the amount demanded and person 1 will get 2000 UGX and person 2 will receive 2000 UGX. For example, imagine person 1 demanded 10,000 UGX and person 2 demanded 6,000 UGX. What do they demand in total? (16,000 UGX). Do we have enough on the table? (yes). As there is enough on the table each person will get what he/she demanded. Person 1 gets 10,000 UGX and person 2 gets 6,000 UGX.

Imagine now that person 1 demanded 11,000 UGX and person 2 demanded 7,000 UGX.

- What do they demand in total? (18,000 UGX).
- Do we have enough on the table? (no).

As there is NOT enough on the table person 1 would get 2,000 UGX and person 2 would get 2,000 UGX.

Let me check whether you understood [Ask the following questions in public and ask the participants to respond.]

- How much income would person 1 get if he demanded 5,000 UGX and person 2 demanded 11,000 UGX? (5,000 UGX). How much would person 2 get? (11,000 UGX)
- How much income would person 2 get if he demanded 8,000 UGX and person 1 demanded 11,000 UGX? (2,000 UGX). How much would person 1 get? (2,000 UGX)

It is important to remember that at the time you make your decision you do not know the decision of the person you are paired with. Similarly, the other person does not know your decision, when making his/her own decision. You can of course have beliefs about what the other will demand. [Ask the following questions in public and ask the participants to respond.]

1. Imagine that person 1 believes that person 2 will demand 9,000 UGX. How much would person 1 get if he demanded 9,000 UGX as well? (2,000 UGX). How much would person 2 get? (2,000 UGX)
2. Imagine that person 1 believes that person 2 will demand 9,000 UGX. How much would person 1 get if he demanded 6,000 UGX? (6,000 UGX). How much would person 2 get? (9,000 UGX)
3. Imagine that person 2 believes that person 1 will demand 6,000 UGX. How much would person 2 get if he demanded 6,000 UGX as well? (6,000 UGX) . How much would person 1 get? (6,000 UGX)
4. Imagine that person 2 believes that person 1 will demand 6,000 UGX. How much would person 2 get if he demanded 11,000 UGX? (2,000 UGX) . How much would person 1 get? (2,000 UGX)

[Stick poster of decision card to the wall and distribute empty decision card] To make decisions, we will proceed in the following way. First, we will ask you to specify on the decision card what you believe the other would choose.[Use the poster to explain how to use the decision card] After this, you will be asked to mark your decision on your decision card. [Use the poster to explain how to use the decision card]

Pairing

You will make several decisions in which you will be paired with different persons in this room. At the end of today's programme we select one pair for your payment and you will get to know the identity of the other person in the selected pair and the other person in this pair will get to know your identity. However, at the moment when you will be asked to make a decision, you won't always know the identity of the person you are paired with.

In some pairs you wont know the identity of the other person, and neither will the other person know your identity. In this case the two boxes under YOU and Other person will be empty. The other person could be from the same village where you live or from another village. This will be indicated on the decision card [Show on the poster of the investment decision card where it will be indicated whether same/different village]. Semi-disclosure treatment: In other pairs, one person will know the identity of the person s/he is paired with, while the other person will not know the identity of the person s/he is paired with. The person who will know the identity of the other person will find the name and photograph of the other person on his/her decision card. If you get to see your photograph on the decision card the other will know your identity and name. If your photograph/name does not appear on your decision card, the other will not know your identity. [Show on the poster of the decision card where they can find the names and photographs of both persons]

In other words, if you get to see a photograph and name in the box under Other person, you get to know the identity of the person you are paired with. If you see your photograph on your decision card, the other will know your identity and name. If your photograph/name does not appear on your decision card, the other wont know your identity.

For each of the pairs you are involved in you will receive a new decision card. You may make the same decision or you may make a different decision.

Control questions

We will now ask some questions to see whether you understood the instructions.

1. How much would you get if you demanded 10,000 UGX and the other person demanded 10,000 UGX as well? How much would the other person get?
2. How much would you get if you demanded 4,000 UGX and the other person demanded 12,000 UGX? How much would the other person get?
3. How much would you get if you demanded 8,000 UGX and the other person demanded 10,000 UGX? How much would the other person get?
4. How much would you get if you demanded 10,000 UGX and the other person demanded 6,000 UGX? How much would the other person get?

[For each of the questions, record on the control question card whether they answered it correctly. If the participant gave a wrong answer for at least one of the questions, ask him/her to have a careful look at it once more and ask what was not clear. Answer their questions as clearly and accurately as possible. If necessary, clarify the instructions; but not more than once. Write down additional comments if you think the participants did not get enough understanding. Retain their decision cards.]

Decisions

[Give each participant a pen.] If you have no further questions, we will now begin. Remember, there are no wrong decisions, so you should choose the option as you prefer. We emphasize that it is important that you make your decision in private. Do not show your decision card to the other participants. If you need assistance, please raise your hand so that one of us can come to assist you. Once you have made your decision, please fold the decision card and raise your hand so that we can come by to collect your decision card.

[The participants remain seated. We give decision card with pair no 1 to the participants. Clarify publicly the treatment (same/different village, anonymous/non-anonymous). After the participants have made their decision, they fold their decision card. When collecting the decision cards we check whether their answer is readable and consistent. Add comments if the participant was struggling (e.g. if he/she was helped with filling in the decision card). After all cards have been returned, we give them the decision card for pair no 2. Explain that it is a new pair and clarify publicly important elements such as the name/photograph of the involved participants (if relevant) including whose identity is known to whom, and whether they belong to the same village. Follow the same procedure for the other pairs. Make sure that distribution cards are distributed in the correct order 1 4.]

[When all participants have made their 4 decisions, the experiment is complete. Control that all decision cards have been returned. Collect pay-off table cards and remove poster]

B. Additional Tables

	WW			MM			Mix			
	N	mean	s.dev.	N	mean	s.dev.	N	mean	s.dev.	p-value+
Risk (dif)	107	.1196	.095	76	.1072	.096	144	.1181	.095	0.407
Agree (dif)	107	1.815	1.38	77	1.812	1.39	145	1.875	1.81	0.885
Trust (dif)	107	1.395	1.24	77	1.353	1.14	145	1.367	1.22	0.982
Wealth (dif)	107	2.001	1.67	77	2.037	1.87	145	1.938	1.76	0.906
Education (dif)	107	4.850	2.80	77	3.803	3.21	145	3.839	3.02	0.003
Age (dif)	107	19.17	12.6	76	15.48	11.8	143	16.86	12.0	0.108
Religion (same)	107	.4206	.496	77	.5974	.494	145	.4414	.498	0.038
Work (same)	107	.7570	.431	77	.6623	.476	145	.7034	.458	0.363
Friends	107	.7476	.436	77	.6883	.466	145	.6069	.490	0.060

+ two-sided p-value of a Kruskal-Wallis test

Table B.1: Characteristics by Gender Combination

	SD			FD			
	N	mean	s.dev.	N	mean	s.dev.	p-value+
Risk aversion	108	1.981	.917	117	2.009	.856	0.704
Agreeableness	108	-.267	1.83	117	.1498	1.56	0.090
Trust	108	-.165	1.38	117	-.119	1.12	0.437
Wealth	108	-.069	1.97	117	-.279	2.05	0.343
Age	108	43.40	14.8	117	41.67	13.4	0.451
Education	108	6.402	3.66	117	5.393	3.71	0.055

+ two-sided p-value of a Mann-Whitney test

Table B.2: Characteristics by Between-Subject Treatment

	Conflict		Unclaimed resources	
	AN	FD	AN	FD
	(1)	(2)	(3)	(4)
WW	-0.799	-11.65*	289.3	502.6***
	(0.518)	(6.861)	(298.8)	(101.5)
MM	-0.141	-1.682	490.1	425.3
	(0.684)	(2.577)	(574.9)	(285.1)
B_sum	-0.379***	-3.233*	37.45	156.6***
	(0.107)	(1.964)	(52.92)	(30.96)
B_dif	0.0263	0.625	101.5	-10.27
	(0.142)	(0.585)	(60.98)	(36.20)
Risk_sum	-0.142	12.31	-568.0	-488.3
	(2.666)	(8.925)	(611.6)	(678.0)
Risk_dif	-1.726	6.522	754.1	370.7
	(3.479)	(15.11)	(1196.2)	(1223.5)
Relig_same	-0.249	2.469	-172.4	60.38
	(0.409)	(2.756)	(227.7)	(124.2)
Educ_sum	0.0548	0.195	-59.03**	-43.42
	(0.0735)	(0.147)	(26.99)	(35.60)
Educ_dif	0.0767	-0.477***	-55.05	-11.60
	(0.0763)	(0.181)	(53.11)	(28.14)
Work_same	0.186	1.221	-216.1	164.2
	(0.745)	(1.324)	(348.2)	(263.0)
Wealth_sum	0.0110	0.791	-25.22	-34.60
	(0.114)	(0.744)	(49.56)	(33.42)
Wealth_dif	-0.294*	-1.700**	41.61	-23.54
	(0.177)	(0.699)	(77.12)	(53.47)
Age_sum	0.0151	-0.0258*	-2.382	-3.929
	(0.0125)	(0.0149)	(9.204)	(2.622)
Age_dif	-0.0136	0.118	15.13	12.31
	(0.0165)	(0.0742)	(18.86)	(7.660)
Agree_sum	-0.00477	-0.748	32.11	-11.91
	(0.0939)	(0.484)	(54.67)	(49.62)
Agree_dif	-0.118	1.142	83.14	49.78
	(0.187)	(0.931)	(84.69)	(52.30)
Trust_sum	-0.0303	-0.634	-46.73	-45.25
	(0.188)	(1.008)	(107.5)	(63.88)
Trust_dif	-0.0184	2.156	-182.4	34.97
	(0.308)	(1.552)	(150.0)	(52.09)
Friend	-0.498	3.631**	216.9	-228.1
	(0.523)	(1.658)	(278.7)	(178.8)
Constant	4.378	23.71**	1462.4	-697.7
	(3.878)	(9.281)	(1320.9)	(1623.5)
Observations	110	97	110	97

Models 1 and 2 are logit regressions, models 3 and 4 OLS. Model 1 denotes conflict in AN, model 2 conflict in FD. Model 3 presents unclaimed resources in AN, model 4 unclaimed resources in FD. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. B_sum and B_dif are actual beliefs divided by 1000. All models control for experimenter FE.

Table B.3: Inefficiency

	Ego		Alter	
	Male	Female	Male	Female
	(1)	(2)	(3)	(4)
FD x MM	379.2		2541.1*	
	(450.0)		(1393.5)	
FD x MW	208.7			264.1
	(726.3)			(1558.4)
FD x WW		2250.1***		-406.6
		(567.1)		(635.3)
FD x WM		2426.3**	-1475.5	
		(1092.7)	(2113.9)	
AN x B	-0.986***	-0.236*	-0.774***	-0.681***
	(0.0300)	(0.125)	(0.176)	(0.0907)
FD x MM x B	-1.034***		-1.099***	
	(0.0483)		(0.0490)	
FD x MW x B	-1.021***			-0.645***
	(0.0862)			(0.169)
FD x WW x B		-0.571***		-0.650***
		(0.119)		(0.0739)
FD x WM x B		-0.541***	-0.540**	
		(0.143)	(0.192)	
Risk_ego			-100.1	-154.9
			(101.8)	(224.5)
Educ_ego			-25.42	18.75
			(49.77)	(70.56)
Relig_ego			-43.99	-176.1*
			(89.86)	(96.50)
Work_ego			144.6**	162.9
			(60.71)	(128.9)
Wealth_ego			142.6***	51.14
			(27.03)	(78.63)
Age_ego			-7.948	-13.54
			(12.77)	(13.05)
Agree_ego			107.7	127.1
			(115.1)	(148.6)
Trust_ego			-265.5	-43.41
			(174.0)	(241.6)
Risk_alter	-108.9*	-50.29		
	(57.22)	(139.9)		
Educ_alter	-46.05*	27.71		
	(21.33)	(19.30)		
Relig_alter	59.92	-46.46		
	(56.17)	(128.1)		
Work_alter	58.18	-89.69**		
	(45.07)	(38.31)		
Wealth_alter	19.14	-42.50		
	(32.05)	(54.64)		
Age_alter	-0.594	-8.925		
	(3.883)	(8.301)		
Agree_alter	-14.01	-77.76		
	(37.45)	(81.16)		
Trust_alter	-26.34	137.4		
	(54.19)	(106.5)		
Friend	193.3	-222.8	273.5	-109.6
	(124.3)	(215.1)	(249.4)	(252.2)
Constant	15542.1***	10677.5***	14097.5***	13835.0***
	(294.8)	(831.6)	(1071.1)	(907.0)
Observations	219	240	215	244
R^2	0.870	0.399	0.747	0.494

Linear panel regressions with individual FE. Models 1 and 2 include FE for ego, models 3 and 4 FE for alter. Model 1 denotes male egos, model 2 female egos, model 3 male alters, model 4 female alters. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels.

Table B.4: Demands (AN–FD)

	Ego		Alter	
	Male	Female	Male	Female
	(1)	(2)	(3)	(4)
SD	-5893.6*	-1769.1	-6117.7*	-1424.8
	(3298.1)	(1120.6)	(2957.0)	(1032.9)
WM		-792.1	-3491.8**	
		(1093.6)	(1249.0)	
MW	-1233.8			1226.9
	(795.5)			(907.1)
SD × WM		3889.1**	8105.8**	
		(1415.9)	(3730.2)	
SD × MW	3378.0			171.9
	(4491.8)			(2618.5)
B	-1.028***	-0.678***	-1.058***	-0.661***
	(0.0500)	(0.0675)	(0.0274)	(0.0477)
SD × B	0.759	0.221	0.807*	0.208
	(0.479)	(0.164)	(0.454)	(0.153)
WM × B		0.128	0.479**	
		(0.156)	(0.190)	
MW × B	0.157			-0.0857
	(0.0997)			(0.127)
SD × WM × B		-0.554**	-1.132*	
		(0.187)	(0.561)	
SD × MW × B	-0.449			-0.0928
	(0.628)			(0.329)
Risk_ego	-124.4	-139.4	28.00	-171.3
	(147.4)	(166.8)	(84.75)	(174.4)
Educ_ego	-44.69	29.76	-12.83	6.704
	(35.66)	(45.20)	(33.70)	(38.84)
Relig_ego	0.529	-75.10	-84.36	-85.16
	(61.46)	(115.1)	(83.98)	(113.5)
Work_ego	110.6	83.42	53.53	105.3
	(92.58)	(58.92)	(111.7)	(65.18)
Wealth_ego	70.81**	-8.300	93.78**	-20.27
	(26.97)	(38.70)	(31.54)	(22.73)
Age_ego	-7.354	-16.93	-20.48*	-9.849
	(9.401)	(10.36)	(9.590)	(10.80)
Agree_ego	76.82	96.94	121.8	69.62
	(63.60)	(61.14)	(77.92)	(72.64)
Trust_ego	-37.71	-199.8	-114.7	-155.6
	(83.47)	(172.3)	(92.34)	(161.6)
Risk_alter	-119.5	5.906	-145.5	39.21
	(143.6)	(150.0)	(133.3)	(147.0)
Educ_alter	21.73	136.3***	64.24*	86.43**
	(36.71)	(41.86)	(34.49)	(32.17)
Relig_alter	64.22	-41.18	-33.91	12.19
	(76.80)	(122.5)	(75.64)	(92.58)
Work_alter	5.176*	5.279	5.054*	-18.30
	(2.742)	(49.91)	(2.708)	(65.38)
Wealth_alter	6.718	-17.06	12.88	-70.98
	(59.79)	(31.23)	(39.83)	(80.11)
Age_alter	-3.702	-1.407	-4.186	-7.656
	(8.704)	(8.811)	(11.81)	(7.838)
Agree_alter	-121.0	-18.33	-125.8*	39.14
	(76.04)	(64.30)	(59.96)	(88.21)
Trust_alter	-47.39	124.5	-51.28	64.42
	(125.7)	(76.72)	(140.4)	(81.09)
Friend	45.68	-188.7	-83.66	85.05
	(255.0)	(261.0)	(228.0)	(321.7)
Constant	16953.3***	13548.3***	17406.2***	13193.6***
	(763.6)	(869.4)	(737.7)	(977.8)
Observations	160	188	170	178
R^2	0.653	0.611	0.695	0.533

OLS regressions. Model 1 denotes male egos, model 2 female egos, model 3 male alters, model 4 female alters. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. All models control for experimenter FE.

Table B.5: Demands (FD–SD)

	Ego				Alter			
	Male		Female		Male		Female	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FD x MM	-60.74	-197.9			205.0	-22.92		
	(117.2)	(250.4)			(380.7)	(323.8)		
FD x MW	426.2	297.9					265.8	-47.09
	(244.2)	(251.5)					(589.2)	(480.8)
FD x WW			38.05	-142.1			-303.0	69.11
			(642.5)	(605.5)			(818.5)	(869.2)
FD x WM			236.1	30.43	541.9	437.6		
			(322.5)	(315.2)	(389.7)	(394.5)		
Educ_ego						60.79		-47.12
						(73.96)		(61.53)
Relig_ego						126.7		368.4**
						(209.8)		(145.7)
Work_ego						29.48		11.91
						(94.05)		(79.01)
Risk_ego						-61.00		-110.6
						(207.2)		(70.37)
Agree_ego						-133.3		42.29
						(147.2)		(109.9)
Trust_ego						210.5*		263.7
						(102.3)		(161.9)
Wealth_ego						45.33		150.4
						(110.3)		(88.61)
Age_ego						23.23		-46.58**
						(17.00)		(16.90)
Educ_alter		56.72		-37.01				
		(77.64)		(52.22)				
Relig_alter		16.96		158.8				
		(102.2)		(92.11)				
Work_alter		-41.54		340.1**				
		(83.76)		(136.0)				
Risk_alter		-142.1		-172.5				
		(359.3)		(176.2)				
Agree_alter		-228.7		69.51				
		(151.3)		(50.28)				
Trust_alter		25.89		-258.3**				
		(101.0)		(114.7)				
Wealth_alter		-57.19		-177.1***				
		(79.01)		(54.69)				
Age_alter		-1.665		-35.57**				
		(9.384)		(12.69)				
Friend		147.0		-343.4		-350.3		-481.4
		(449.1)		(320.7)		(367.2)		(716.7)
Constant	6674.2***	6704.8***	6316.6***	7755.5***	6492.1***	5392.7***	6482.6***	8588.0***
	(52.69)	(860.5)	(221.3)	(1083.8)	(116.4)	(854.2)	(303.4)	(918.5)
Observations	221	219	244	240	217	215	248	244
R^2	0.019	0.079	0.004	0.201	0.016	0.082	0.010	0.149

Linear panel regressions with individual FE. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels.

Table B.6: Beliefs (AN–FD)

	Ego				Alter			
	Male		Female		Male		Female	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SD	-1195.1**	-973.3**	253.1	100.4	-1169.7**	-1201.6***	329.6	289.0
	(455.5)	(395.7)	(800.3)	(679.0)	(424.6)	(392.6)	(767.1)	(710.7)
WM			338.6	358.7	-143.0	-10.84		
			(463.0)	(358.0)	(432.7)	(600.2)		
MW	-16.50	296.8					507.2	435.7
	(410.4)	(809.7)					(579.7)	(714.7)
SD × WM			-1110.4	-1161.3*	-229.8	-347.7		
			(637.9)	(621.5)	(734.1)	(617.2)		
SD × MW	945.7	595.9					-63.64	-23.69
	(760.2)	(804.5)					(716.3)	(757.3)
Risk_ego		-71.40		277.2		27.76		170.9
		(241.5)		(214.8)		(184.2)		(247.4)
Educ_ego		-26.24		73.54		6.792		22.06
		(51.08)		(66.46)		(64.08)		(74.81)
Relig_ego		243.6		132.3		49.87		93.54
		(156.6)		(173.6)		(148.0)		(130.3)
Work_ego		-130.0		-135.4		40.54		-133.7
		(140.0)		(151.6)		(118.4)		(119.2)
Wealth_ego		217.0***		151.6		137.3		244.1*
		(45.36)		(159.4)		(111.3)		(120.0)
Age_ego		0.741		17.69		14.67		1.626
		(8.857)		(16.04)		(18.09)		(16.56)
Agree_ego		67.38		-225.4		-1.126		-157.1
		(65.35)		(151.1)		(115.9)		(103.9)
Trust_ego		180.4		10.32		124.0		63.76
		(126.4)		(192.2)		(167.5)		(157.0)
Risk_alter		-105.3		122.2		1.104		107.1
		(281.1)		(213.1)		(322.4)		(205.3)
Educ_alter		-14.72		-20.74		-36.64		-35.82
		(57.94)		(50.42)		(64.17)		(61.95)
Relig_alter		-14.03		-46.88		75.73		-80.81
		(157.0)		(153.3)		(171.2)		(118.2)
Work_alter		-6.181***		-70.56		-5.233***		46.84
		(0.993)		(118.5)		(1.021)		(108.2)
Wealth_alter		-13.67		4.062		26.95		-28.65
		(59.46)		(39.68)		(72.72)		(106.1)
Age_alter		-9.770		6.088		-2.240		-14.10
		(12.98)		(14.52)		(12.33)		(11.82)
Agree_alter		179.6		-123.2		-34.50		111.5
		(110.9)		(95.57)		(87.28)		(90.59)
Trust_alter		-55.99		-149.9		146.2		-230.0
		(212.1)		(112.4)		(182.1)		(139.3)
Friend		519.4		222.4		329.5		520.6
		(352.6)		(263.2)		(235.5)		(343.2)
Constant	7327.3***	7764.6***	6471.8***	4375.9***	7493.7***	6705.6***	6261.3***	6039.2***
	(376.8)	(964.0)	(870.2)	(977.1)	(336.4)	(1206.1)	(749.5)	(1149.3)
Observations	164	160	193	188	173	170	184	178
R^2	0.091	0.227	0.019	0.110	0.100	0.167	0.023	0.138

OLS regressions. Standard errors in parentheses, clustered at session level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ indicate two-sided significance levels. All models control for experimenter FE.

Table B.7: Beliefs (FD–SD)