Sharing norms and negotiations across cultures: Experimental interactions within and between Egypt and Germany

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Abstract

We report experimental findings on distribution decisions by Germans and Egyptians. We explore their sensitivity along three different dimensions: we study (i) the impact of the price of giving, (ii) how giving responds to the cultural and gender identity of the recipient, and (iii) how a threat of rejection in a bargaining situation affects the distribution choice. We show substantial differences in generosity between participants in Egypt vs. Germany, the former showing substantial equality-seeking behavior. Correspondingly, both genders in Egypt increase giving when it becomes more costly as do German females, in contrast to German males who give particularly when it is cheap. While Egyptian participants choose according to an equality norm independently of the recipient's identity, we detect substantial discrimination by German females when giving to Egyptian males. This discrimination is in line with prejudice as males in Egypt give significantly more than what Germans expect from them. Conversely, males in Egypt overestimate the generosity of Germans towards them. We finally show that, relative to giving in the dictator game, the ultimatum game offers increase among German participants, but not among participants in Egypt. Females in Egypt even decrease giving in UG relative to DG when allocating to males in Egypt. This finding is in line with highly favorable offers being rejected by a substantial fraction of participants in Egypt.

JEL classification: C91; D30; D63; D64; Z10

Keywords: inequality; cultural identity; gender; dictator game; ultimatum game; price of giving; discrimination.

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1 Introduction

Intercultural interactions pose challenges both within companies, multicultural teams, as well as for society at large. Differences in behavioral patterns, communication styles, or expectations can generate conflicts and provide obstacles to cooperation. It thus appears crucial to gain deep insights into the determinants of behavior in such multicultural interactions.

While cross-cultural studies have identified important differences in core economic behaviors (e.g., Almås et al., 2020: distributional preferences, Drake, 2001: negotiation behavior, Roth et al., 1991; Gächter and Schulz, 2016: honesty, Bornhorst et al., 2010: trust), the literature on interactions between people with different cultural backgrounds is less developed (e.g., Amann and Jaussaud, 2020; Goerg et al., 2016; Adena, 2014; Horak, 2018). Yet, identified *cross-cultural* differences do not necessarily translate to *intercultural* interactions as individuals may condition their behavior on the identity of their interaction partners.

In this paper, we investigate behavior and behavioral expectations in intercultural interactions in a controlled laboratory experimental setting. We report evidence on distributional preferences in dictator games and ultimatum bargaining within and between participants from Egypt and Germany. The selection of these countries is motivated by them being substantially different with respect to culture and gender, yet having important interactions, e.g. in tourism, business, and education. As such, investigating differences in behaviors and mismatches in beliefs about others' preferences and actions is relevant beyond the pure academic interest.[1]

With our study, we add to the vibrant literature on how people may condition their behaviors on cultural information about their partner.[2] Yet, our study highlights that a further differentiation within culture is required: for this, we interact the country background with gender information in order to observe how behavior may be conditioned on the combined gender-culture-identity of the partner. We focus on the country and gender dimensions as their combination is expected to specifically suffer from stereotypes (e.g., Kashima, 2000; David, 2022).[3]

[1] There is an increasing number of educational exchanges between the two countries. According to the UNESCO Institute for Statistics, Germany ranks first as the destination for Egyptian students studying abroad at the tertiary level. The German Academic Exchange Service (DAAD) is influential in facilitating exchange at university level. Between 2016 and 2019, the number of Egyptian students intending to graduate from German colleges and universities increased by 77% (`https://egyptindependent.com/number-of-egyptian-students-graduating-in-germany-increases-77-between-2016-2019-erudera/`). The interaction at the education sector provides a foundation for increased business relations: Germany is Egypt's second-largest trade partner, while Egypt is Germany's third-largest trade partner in the Middle East, again with steadily growing bilateral trade. Moreover, German tourists are the largest group of foreign tourists to Egypt. Given these interactions, we consider our students' samples as relevant as today's students might be confronted with the other culture both during their studies or in their later profession.

[2] A recent overview of cross-cultural experiments is given by Horak (2018).

[3] With Egypt being a Muslim country, Egyptians may be subjected to discrimination against Muslims which tends to be widespread in Germany (e.g., Friedrichs and Storz, 2022; Diekmann, 2020; Pickel and Yendell, 2016; Pettigrew et al., 2007) and beyond. Much stereotyping thereby applies to Muslim men.

Participants in our experiment play variants of dictator and ultimatum games both as proposers and responders. With this experimental design, we explore the sensitivity of giving along three different dimensions: first, we estimate the impact of the price of giving; second, how giving responds to the cultural and gender identity of the recipient; third, how a threat of rejection in a bargaining situation affects the allocation decision.

As a baseline, we show substantial differences in the level of generosity between participants in Egypt vs. Germany. We then continue to investigate the robustness of these giving decisions to varying economic and cultural factors, namely the price of giving and the revealed identity of the gender and country background of the recipient. Among German participants, males give more when giving is cheap while the opposite behavior is found among females. Yet, both genders in Egypt increase giving when it becomes more costly. In fact, the choices by both males and females in Egypt indicate a substantive norm of equality that subjects adhere to.

We then investigate the robustness of potential giving norms to varying the identity of the recipient. We find that German female participants heavily discriminate on the identity of the partner: specifically, they give significantly less to male recipients from Egypt. In contrast, choices by Egyptians are not contingent on the identity of the partner, i.e. their equality-seeking norms of giving are largely robust to varying whom they allocate the money to. We further identify important differences between the actual levels of generosity vs. what is expected by the recipients. Germans expect Egyptian males to be far less generous than they actually are. We interpret this as *prejudice* towards Egyptian males which in turn serves as a potential reason for the reduced giving by Germans towards Egyptian males. Conversely, males in Egypt overestimate the generosity of Germans towards them. We interpret these findings as evidence of how stereotypes affect behavior. Migrant Muslim men, for example, are often stereotyped as a threat in Western countries and specifically in Germany (e.g., Wigger, 2017, 2019).

The dictator games reveal the distributional preferences by identity pairs. In order to gain insights into how potential discrimination affects the success of cooperation or bargaining, we further investigate behavior in an ultimatum game. When making the payoff conditional on acceptance in the ultimatum game, giving increases relative to a dictator game among German participants, but not among participants in Egypt. For the latter, the voluntary level of giving is already sufficient to generate acceptance. In fact, females in Egypt even decrease giving in UG relative to DG when allocating between themselves and males in Egypt. This finding is in line with a non-monotonic acceptance behavior: highly favorable offers are rejected by participants in Egypt, particularly when stemming from their own country. This provides another piece of evidence of the strong equality-seeking norm among Egyptian subjects.

Our investigations into the economic and cultural determinants of distribution decisions complement different and often distinct strands of the literature. A multitude of

Large differences exist with respect to gender bias with Germany ranking 11^{th} and Egypt ranking 128^{th} worldwide on the 2023 Gender Equality Index.

experimental work suggests that men are more responsive to price changes and there are some systematic differences by sex in risk preferences, social preferences, and competitive preferences (Andreoni and Vesterlund, 2001; Gneezy et al., 2003; Croson and Gneezy, 2009; Niederle and Vesterlund, 2007). An often-cited finding is that males' giving decreases in the price of giving, while females tend to give more when the price is high (Andreoni and Vesterlund, 2001; Fisman et al., 2007; Visser and Roelofs, 2011; Boschini et al., 2012). The common interpretation is that women are more concerned with equalizing earnings between parties, while men are more concerned with maximizing total payoffs (e.g., Kamas and Preston, 2015).[4] Rigdon et al. (2018) suggest that these gender differences in the reaction to the price of giving are driven by differences in beliefs on giving decisions by others. Yet, most of these papers rely on experiments in "WEIRD" (Western, educated, industrialized, rich, and democratic) countries, and less evidence is given for participants from other cultural backgrounds or on interactions between cultures. In a recent meta-study Doñate-Buendía et al. (2022) identify that gender differences in generosity in dictator games depend on the cultural context, yet they do not include the price of giving as one explanatory variable. Specifically, a lack of observations for women in North Africa precludes any gender inferences.[5] Our study contributes to this literature by showing that gender differences in the price of giving are not robust to moving to another culture.

In a review article, Guiso et al. (2006) focus on prior beliefs and values or preferences to identify the causal link between culture and economic outcomes. They show that redistributional preferences depend on ethnic origin and thus are transmitted by culture. This finding is consistent with Henrich et al. (2005) who identify striking differences in offers made during UG between societies both on average allocation and rejection behavior by responders.[6] More recently, Almås et al. (2020) and related studies investigate differences in fairness consideration, i.e. preferences for redistribution in different societies. Almås et al. (2020) showed that Americans and Norwegians hold largely different fairness views, resulting in different redistribution choices depending on the background conditions. Related work by these authors within a "Fairness around the world" project ranks Egypt as one of the countries with the most equality-seeking choices, while Germans are substantially less inclined to generate equal distributions. Our results on average allocation choices in Egypt and Germany are thus consistent with their finding. Yet, the alloca-

[4] An alternative setting is studied by Chowdhury et al. (2017) who identify gender differences to giving vs. taking variants of dictator games, again identifying males being more sensitive to introducing the taking option, thus in line with a stronger reaction to the price of giving (here evaluated by the opportunity costs of giving).

[5] Relatedly, Friedl et al. (2020) find high inequality aversion of women leading to women being more risk averse than men in social risk-taking, yet no such gender differences are found in a small-scale society. In line with our study, gender differences in social risk taking thus are found to be culture-specific. Dorrough et al. (2021) argue the males and females may engage in different kinds of prosocial behavior, yet cannot identify gender differences considering punishments of perpetrators vs. compensations of victims across diverse cultures.

[6] In specific cultures, very generous offers are rejected (e.g., Henrich et al., 2005, 2006; Tracer, 2003). Such behavior is linked to cross-cultural differences in antisocial punishment in public good games (e.g., Herrmann et al., 2008; Bruhin et al., 2020).

tion decision in these studies is between anonymous MTurk workers. As such, the extant studies do not vary the identity or cultural background of the person receiving the offer.

By specifically investigating intercultural interactions, the focus of our study is on how distributional preferences depend on the specific pairing of culture-gender identities. Only a few studies focus on such intercultural interactions. Cappelen et al. (2013) conduct experiments between participants in Norway and Germany vs. Uganda and Tanzania. They show that entitlements and needs considerations affect choices among most participants and that only a third of participants do not condition choices on the country information. In different games (e.g., prisoner's dilemma, ultimatum, or trust games), intercultural interactions are often found to provide obstacles to cooperation and efficiency (e.g., Fershtman and Gneezy, 2001; Georg et al., 2008; Matsumoto and Hwang, 2011; Goerg et al., 2007; Matsumoto and Hwang, 2015; Bornhorst et al., 2010; Castro, 2008; Takahashi et al., 2008; Cox et al., 1991; Goerg et al., 2016; Sharma et al., 2018; Dorrough and Glöckner, 2016). Goerg et al. (2016), for example, study behavior in an investment game experiment between participants in Germany, Israel, and Palestine. They identify substantial mismatches between beliefs and actual behavior across countries. Dorrough and Glöckner (2016) show that individuals have shared stereotypes in terms of expected cooperation for interaction partners from different nations, driven particularly by in-group favoritism and differences in wealth. Dorrough and Glöckner (2019) find that lower cooperation rates by women are driven by lower expectations regarding the cooperativeness of the interaction partners. Our experiment reveals that mismatches of beliefs and actions indeed are particularly prone to occur between cultures. That is, individuals may not have fitting beliefs on what other participants expect or how those would decide when confronted with a similar choice situation. Fershtman and Gneezy (2001) find that ethnic discrimination is particularly frequent among male participants. In contrast, we find substantial discriminating behavior among females in Germany.

Our study relies on an abstract lab experimental setting in order to isolate discriminatory determinants of distributional decisions. Yet, related discrimination based on cultural background or gender is also frequently found in real-world contexts. For example, empirical evidence suggests gender and cultural discrimination specifically against Arabic names and male names in, e.g., housing markets, markets for ride-shares, or used-cars (e.g., Öblom and Antfolk, 2017; Ewens et al., 2014; Flage, 2018; Tjaden et al., 2018; Adena, 2014; Zussman, 2013). Discrimination based on race can further be found in the use of police force (e.g., Hoekstra and Sloan, 2022), education (e.g., Botelho et al., 2015) and sports (e.g., Price and Wolfers, 2010). There is also a significant body of research through correspondence studies such as Bertrand and Mullainathan (2004); Arceo-Gomez and Campos-Vazquez (2014); Oreopoulos (2011); Baert (2018) that focus on discrimination in the labor and housing market. Finally, evidence of discrimination is also found in venture capital investments both based on gender (Guzman and Kacperczyk, 2019), and race (Younkin and Kuppuswamy, 2018). Hedegaard and Tyran (2018) identify a price of prejudice by assessing how discriminatory behavior responds to its opportunity costs.

Our paper complements this literature by comparing the sensitivity of choices based on culture and gender versus economic determinants like the price of giving. With this, we demonstrate that discriminatory behavior can also be documented in simple distributional decision tasks.

The remainder of the paper proceeds as follows. Section 2 presents the experimental design before the specific procedures are discussed in section 3. Within the results section, we first discuss the reaction of giving to prices and differences in giving by cultural and gender identity in section 4.1, before we discuss how these choices are conditioned on the identity of the recipient in section 4.2. Section 4.3 then explores the mismatch of actions and expectations, before section 4.4 presents the results on behavior in ultimatum game settings. We conclude in section 5.

2 Experimental Design

We gathered our data through a lab experiment conducted at University of Hamburg, Germany, and at The British University of Egypt in Cairo, Egypt. We report findings on four different games: a standard dictatorship game, a dictatorship game where the receiver gets twice the amount transferred, a dictatorship game where the receiver gets half the amount transferred, and a standard ultimatum game.[7]

Specifically, the dictator received an allocation of 100 tokens, out of which they could give up x tokens with $x \in \{0, 10, \ldots, 90, 100\}$ such that the payoff to the dictator is $100-x$, while the payoff to the recipient is αx with $\alpha \in \{0.5, 1, 2\}$, depending on the task. That is, the implicit price of giving is $p = 1/\alpha$ as the cost of generating a payoff y to the recipient is $yp = y/\alpha$. The ultimatum game again allowed for the same token allocation (based only on $\alpha = p = 1$, but payoffs were contingent on the acceptance by the responder. Responders' acceptance decisions are elicited via the strategy method. That is, for each possible level of x, the responder indicates if she accepts or rejects it.

The order of the games is fixed and identical for all participants. Participants first face the three dictator decisions ($p = 1$, $p = 2$, $p = 0.5$), before moving to the ultimatum decisions (proposer first, then as responder).[8]

Besides actual decisions, we elicit incentivized first and second-order beliefs on each task in a post-experimental survey. If the participant correctly guessed the choice on x of the matched partner (first-order beliefs) or the partner's beliefs (second-order beliefs), the participant receive another 10 tokens for each correct guess.

[7]The experiment also included a subsequent battle of the sexes game with a punishment option which is not reported in this paper because a part in the instructions was unfortunately unclear.

[8]Naturally, we cannot exclude order effects with this design. Yet, there is no reason to assume that these potentially existing effects interact with the gender-culture treatment variations. For the ultimatum game, exposing subjects to both proposer and responder roles tends to have only minor to null effects on average decisions relative to a sequential protocol that exposes players to only one of the two roles (e.g., Güth et al., 1982; Oxoby and McLeish, 2004). Yet, the elicitation method may affect role-reversal consistency, i.e., the share of responders who accept the offer they make as a proposer (Costa-Gomes et al., 2019).

We recruit participants to fit one of 4 groups that vary with respect to gender and cultural background: males and females in Egypt (EM, EF) as well as males and females in Germany (GM, GF).

We are interested in how prosocial behavior, i.e., giving decisions as well as the expectations regarding these decisions depend on the identity of the partner. That is, each player 1 (the dictator in the DG, the proposer in UG) receives information on the identity of player 2 (receiver in DG, responder in UG). Again we vary this information between males/females in Egypt/Germany which leads to 16 possible pairings, see Table 1.[9]

Randomization is done through a quota so that each possible matching between own group and the partners group has the same number of observations. With a total of 592 participants, we have 148 individuals per group (EM, EF, GM, GF) and thus 37 individuals for each own identity/partner identity matching as summarized in Table 1.

		Own Identity			
		EM	EF	GM	GF
Partner Identity	EM	37	37	37	37
	EF	37	37	37	37
	GM	37	37	37	37
	GF	37	37	37	37
	All	148	148	148	148

Table 1: Number of observations in each pairing of own and partner identity.

All decisions were recorded via the strategy method. That is, all participants act as dictators/proposers, and receivers. The role of player 1 and player 2 is randomly determined after the conclusion of the experiment.

3 Experimental Procedures

The experiment was conducted via Limesurvey[10] at University of Hamburg and at The British University in Egypt, Cairo. Participants were invited randomly from the respective students subject pools via hroot (Bock et al., 2014).[11]

There was no live interaction, participants and their decisions were matched ex-post. The experiment was conducted online from Dec 15-21, 2019. Tokens earned in the exper-

[9]The specific wording can be seen in the instructions in Appendix B. Specifically, we stated that a participant will "be matched with a German male" with the latter two words replaced by "German female" or "Egyptian male" or "Egyptian female", depending on the treatment variation of the specific match. We decided to not highlight the gender/cultural identity of the participant him-/herself. With this, we chose the most neutral wording.

[10]LimeSurvey Project Team / Carsten Schmitz (2012)

[11]The students' subjects pool at the BUE comprises undergraduate students recruited by the Experimental and Behavioural Economics Laboratory (EBEL). BUE is one of 20 accredited private universities in Egypt; a typical BUE student belongs to the upper intermediate/intermediate social class. The Hamburg sample again consisted purely of students, yet includes graduate students and somewhat older students in programs which allow studying after professional training as well as from a so-called "contact study" program for the general population.

iment were converted into Euros (in Hamburg) or Egyptian Pounds (in Cairo) at rates of 10 tokens = 0.50EUR, 10 tokens = 9EGP, which took into account the conversion rate at the time of the experiment.[12] The experiment was preregistered at the AEA RCT registry prior to execution.[13]

In addition to the experiment, participants answered survey questions on their socio-demographics (see Instructions in Appendix B), e.g. age, gender, education, major of study, number of siblings, nationality (used to code German, Egyptian, and 'othernat', which indicates being neither German or Egyptian), religion and religiousness.[14] We also elicited a survey measure of risk-aversion.[15]

Table 2 gives an overview of the demographics of our sample. On average, participants in Germany are older, more likely to be married, have more children, have fewer siblings, are less religious, and are more risk-averse than participants in Egypt. The sample in Germany also is more diverse with respect to the country of birth as indicated by the variable 'othernat' (for other nationality).[16] All these differences are significant on the 1%-level, Wilcoxon ranksum test.[17] When presenting our results, we refer to different behaviors by the samples from Germany versus Egypt as differences between cultures. Here, religion is seen as a core element of culture.[18]

4 Results

4.1 Giving and price of giving – cultural and gender differences

We first focus on behavior in the dictator games. We refer to the ratio between the amount received and the amount given as the price of giving $p = 1/\alpha$.

Figure 1 shows the average allocation x in the three dictator games ($p \in \{0.5, 1, 2\}$) separated by the identity of the dictator, but pooled across recipients' gender and cultural identities (from now on called identity). Table A1 in the Appendix provides further details on giving decisions, specifically on average allocation x, the share of participants with $x > 0$, conditional giving, as well as the share of dictators with $x > 50$.

[12] Introducing a different conversion rate to adjust for purchasing power in the two countries would make the implicit prices of giving vary with the identity of the receiver and thus would interfere with our treatments. Yet, a difference in purchasing power corresponds to a different stake. Yet, the stake size appears to have only a minor or no effect on giving in dictator games (e.g., Carpenter et al., 2005; List and Cherry, 2008; Hopp, 2022; Engel, 2011). The average payout applied in this experiment at the BUE experimental lab (EBEL) corresponds to the regular pay at EBEL for other experiments.

[13] RCT ID AEARCTR-0005178, `https://doi.org/10.1257/rct.5178`.

[14] The answer on religion was used to create binary variables on Christian and Muslim religion. Religiousness was measured on a scale of 1-10, with 10 indicating the highest possible level of religiousness.

[15] We used the question "How willing or unwilling are you to take risks? (0: Not willing at all, 5: Average, 10: Very Willing)" to create a variable risk-aversion as 10 minus the survey response.

[16] In fact, 20% of participants in Germany do report a nationality other than German. None is from Egypt. When dropping all participants who reported having other nationalities (non-Egypt in Egypt or non-German in Germany), we clearly lose some statistical power, yet the results remain robust.

[17] In fact, all variables differ between Egyptian and German participants on the 1% level, Wilcoxon ranksum test.

[18] We also show that the other differences, e.g. age, do not have explanatory power for decisions, by including them as controls in the regression Table A5.

		Germany		Egypt	
Variable	All	Male	Female	Male	Female
age	23.50	26.79	26.75	20.36	20.09
married	0.05	0.08	0.11	0.00	0.00
siblings	1.65	1.27	1.32	2.02	1.97
children	0.06	0.05	0.14	0.00	0.03
Christian	0.22	0.30	0.37	0.09	0.10
Muslim	0.47	0.09	0.05	0.86	0.88
religiousness	3.84	2.19	2.22	5.23	5.74
riskaversion	3.98	4.70	5.10	2.57	3.54
German	0.40	0.83	0.76	0.00	0.00
Egyptian	0.48	0.00	0.00	0.96	0.98
othernat	0.12	0.17	0.24	0.04	0.02

Table 2: Summary statistics of socio-demographic variables. age, Christian, Muslim, Germann, Egyptian and othernat are coded as binary variables (0,1). The variables German and Egyptian indicate the participants' reported nationality, with othernat indicating being neither Egyptian nor German. age, siblings, children are elicited at their respective numeric values. religousness and riskaversion are measured on a scal 1-10 (10 being the highest level).

A first finding on cultural differences in giving is that – looking at the total amount allocated to the partner – Egyptian participants give more to their partner (1% significance, see Table A3 in the Appendix for the exact p-vals). Within Egypt, there is no significant difference with respect to giving between gender. In contrast, German females tend to give more than German males when the price of giving is larger $p \geq 1$, while giving does not significantly differ between genders in Germany when the price is low ($p = 0.5$).

In fact, German males reduce giving when the price increases. All other identities show the opposite behavior: Egyptian males and females as well as German females give more to their partner when the price increases. This is supported by the regression results shown in Table 3 in which we control for the price levels in logs ($\log_2(p) \in \{-1, 0, 1\}$). Table A4 in the Appendix further delineates the effect of low ($p = 0.5$) and high ($p = 2$) prices relative to the standard dictator game.[19] We confirm the significantly different reaction to prices by German males relative to all other identities. With this, we find that culture does not only affect the absolute level of generosity but also affects the slope of the demand curve: our results for gender differences among Germans are in line with extant literature that largely focused on WEIRD countries (e.g., Andreoni and Vesterlund, 2001). In contrast, the Egyptian sample shows no differential gender effects in both contribution levels or their reaction to prices and rather conforms with the qualitative reaction to prices among German females.

The differences in giving can be decomposed into participation, i.e. if dictators choose to give a positive amount $x > 0$, and conditional giving, i.e. the average giving among

[19] It shows that the average price effects are largely driven by the reactions to low prices that lead German males to increase giving while giving for all others declines. Yet, it also demonstrates that Egyptian subjects (in particular males) give more when the price increases from $p = 1$ to $p = 2$.

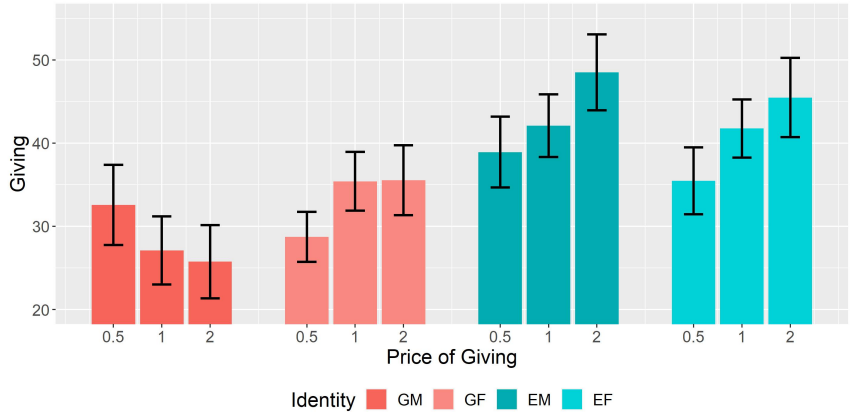


Figure 1: Average amount given in dictator games ($x \in \{0, 10, \ldots, 90, 100\}$) at the respective price of giving $p \in \{0.5, 1, 2\}$, separated by participant's own identity. Bars indicate 95%-confidence intervals.

those who give a positive amount. These variables are displayed in Figures 2 and 3 and are also reported in Table A1.

We observe that the substantially larger average giving by Egyptians is caused by a higher participation: more than 95% of females and 90% of males give a positive amount (for $p = 1$). This share is smaller among German males where only 64% give. The figures also reveal that the larger average giving for higher prices among GF, EM, and EF stems from increased conditional giving, while the share of givers is unaffected for EF and EM and even slightly declining in p for German females. A starkly different mechanism is revealed among German males: here, conditional giving is rather stable w.r.t. the price of giving. In contrast, higher prices affect participation, i.e. move German males to stop giving altogether ($p = 0.00$, Wilcoxon signed-rank test (WRST), comparing participation for $p = 2$ and $p = 0.5$).

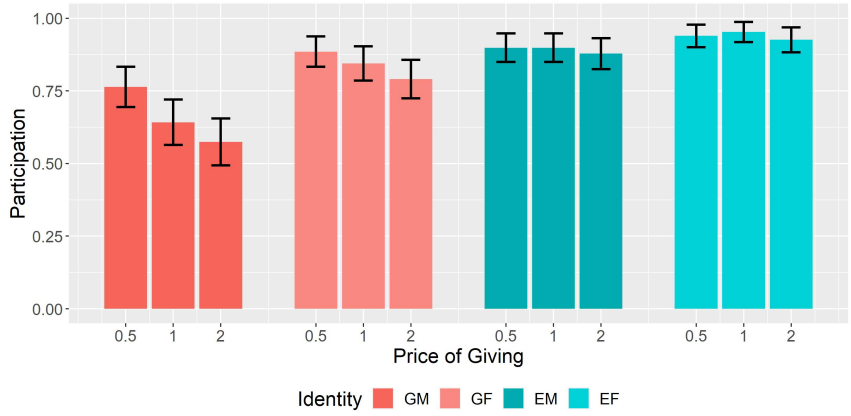


Figure 2: Participation (share of participants with $x > 0$) in dictator games at the respective price of giving $p \in \{0.5, 1, 2\}$, separated by participant's own identity. Bars indicate 95%-confidence intervals.

	giving (x)	giving (x)
GF	4.75**	4.75**
	(2.10)	(2.10)
EM	14.71***	14.71***
	(6.49)	(6.49)
EF	12.43***	12.43***
	(5.48)	(5.48)
$\log_2(p)$	2.45***	-3.41***
	(4.21)	(-2.97)
$\log_2(p)$ x GF		6.82***
		(4.20)
$\log_2(p)$ x EM		8.21***
		(5.06)
$\log_2(p)$ x EF		8.41***
		(5.18)
Constant	28.47***	28.47***
	(17.76)	(17.76)
Observations	1,776	1,776
Number of subject	592	592

z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3: Individual random effects linear regression on the amount given to partner (x) in dictator games, controlling for participant's own identity and price of giving ($\log(p)$).

4.2 Discrimination? How giving depends on the partner's identity

Until now, we have pooled the decisions by dictators across all identities of recipients. While this showed how sensitive giving reacts to the prices, i.e. to economic determinants, our experimental design was targeted towards also identifying potentially discriminatory behavior, i.e. differential effects in giving decisions depending on the identity of the recipient.

Figure 4 shows giving in the dictator games with $p = 1$ separated by both partners' identities.[20] Table 4 shows the respective regressions, also controlling for the different prices of giving.[21] We find no discriminatory giving behavior among Egyptians or among German males. In contrast, German females show a significant difference in the amount given depending on who the partner is. They give significantly less to Egyptian males and German females compared to what they give to Egyptian females or German males, see the corresponding tests in Table 5.[22]

[20]The distributions of allocation decisions in the dictator games by identity pairs for all prices of giving are reported in Figures A1-A3 in the Appendix.

[21]Table A5 in the Appendix again delineates the origin of the price effects into the reaction to low vs. high prices. Additionally, Table A6 presents the corresponding regressions controlling for socio-demographic characteristics.

[22]In line with our result for German females interacting with Germans, Ben-Ner et al. (2004) find that women give less to other women in dictator games. Yet, our study reveals that this result is culture-dependent, both regarding the culture of the dictator (no such effect for females in Egypt) as well as with

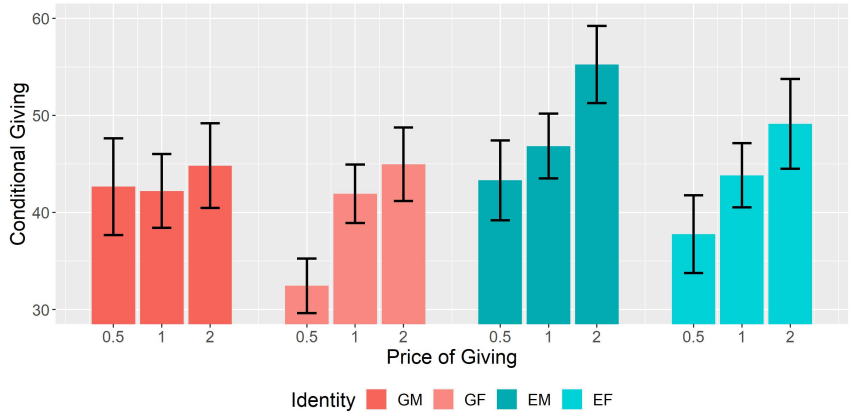


Figure 3: Conditional giving in dictator games at the respective price of giving $p \in \{0.5, 1, 2\}$, separated by participant's own identity. Bars indicate 95%-confidence intervals.

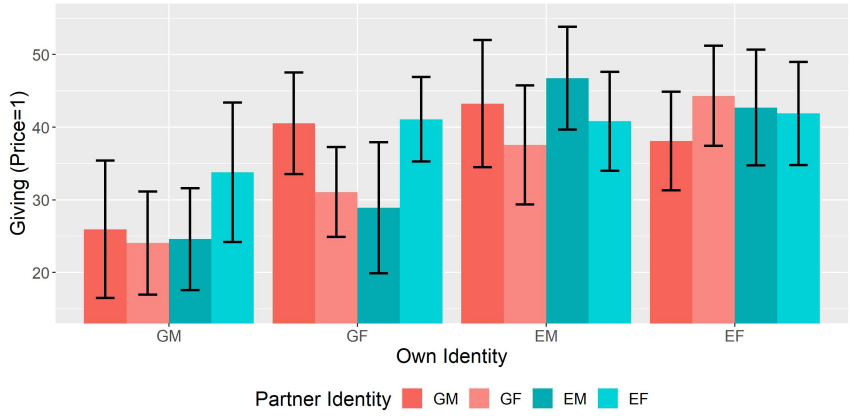


Figure 4: Giving in dictator game ($p = 1$), separated by participant's own identity and conditional on partner identity. Bars indicate 95%-confidence intervals.

4.3 On gaps between actions and expectations

Interaction across cultures also might be prone to prejudice, i.e. wrong beliefs about other identities' behavior. In our design, we elicited first and second-order beliefs. We concentrate our discussion on the dictator game with $p = 1$. We find similar results for the other two prices of giving.

Not surprisingly, the first-order beliefs, i.e. the beliefs on how much the matched partner would give, are correlated with individuals' own giving decisions (see Figure A4 in the Appendix). There is no significant difference between any of these first-order beliefs

respect to the culture of the recipient (different gender effects for German females interacting with German vs. Egyptian partners). In additional explorative analysis, we investigate whether the discriminatory behavior by German females is associated with religion. Table A7 in the Appendix separates German females by being Christian or not. Interestingly, (i) the positive slope of giving as a function of the price originates primarily from German females who are Christians. (ii) The discrimination towards Egyptian males is driven only by non-Christian German females, while Christians do not discriminate against EM. Further investigations into culture-religion interactions may deepen the insights from this explorative analysis.

		Own Identity							
		GM	GM	GF	GF	EM	EM	EF	EF
Partner Identity	GF	0.00	-0.00	-8.11*	-8.11*	1.08	1.08	5.59	5.59
		(0.00)	(-0.00)	(-1.95)	(-1.95)	(0.24)	(0.24)	(1.32)	(1.32)
	EM	-0.81	-0.81	-11.62***	-11.62***	1.89	1.89	-1.53	-1.53
		(-0.16)	(-0.16)	(-2.79)	(-2.79)	(0.41)	(0.41)	(-0.36)	(-0.36)
	EF	5.86	5.86	-0.54	-0.54	0.36	0.36	-1.17	-1.17
		(1.16)	(1.16)	(-0.13)	(-0.13)	(0.08)	(0.08)	(-0.28)	(-0.28)
	$\log_2(p)$ x GF		1.76		-0.95		-6.35*		0.68
			(0.53)		(-0.37)		(-1.85)		(0.19)
	$\log_2(p)$ x EM		5.14		-1.08		-1.08		-4.86
			(1.54)		(-0.42)		(-0.32)		(-1.37)
	$\log_2(p)$ x EF		1.08		1.08		-4.73		-3.38
			(0.32)		(0.42)		(-1.38)		(-0.95)
	$\log_2(p)$	-3.41***	-5.41**	3.41***	3.65**	4.80***	7.84***	5.00***	6.89***
		(-2.89)	(-2.29)	(3.80)	(2.02)	(3.94)	(3.23)	(3.97)	(2.74)
	Constant	27.21***	27.21***	38.29***	38.29***	42.34***	42.34***	40.18***	40.18***
		(7.61)	(7.61)	(12.99)	(12.99)	(13.11)	(13.11)	(13.43)	(13.43)
	Observations	444	444	444	444	444	444	444	444
	N	148	148	148	148	148	148	148	148

z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Individual random effects regressions on giving in dictator games, separated by participant's own identity, controlling for identity of receiver (partner) and price ($\log(p)$).

WRST	GM	GF	EM	EF
GM	-			
GF	0.0275	-		
EM	0.0181	0.4860	-	
EF	0.9839	0.0333	0.0089	-

Table 5: p-vals for ranksum test on giving (x) in dictator game ($p = 1$) by German females depending on matched partners' identity.

and actual giving. This can be interpreted as evidence that participants rationalize their own giving behavior by claiming (or actually believing) that the partner would choose similarly. Yet, they also assess their giving as approximately meeting the expectations of their partners. This can be seen by comparing giving decisions with second-order beliefs, see Figure A5 in the Appendix.

More importantly, we can compare first-order beliefs of recipients with the actual giving by dictators: these first-order beliefs correspond to what the partners expect to receive. Figure 5 reveals substantial mismatches between those expectations (black drop lines) and actual giving (colored bars) for several identity pairings.[23]

Within culture, German males give significantly less to German females than is expected of them (WRST, p=0.019), while German females give more than expected to German males (p=0.047). Thus, there appear to be wrong expectations for giving be-

[23]Figures A6-A7 in the Appendix show the corresponding relationships separated for $p = 0.5$ and $p = 2$. The histograms of allocation decisions and corresponding expectations by partners in the three dictator games are given in Figures A1-A3.

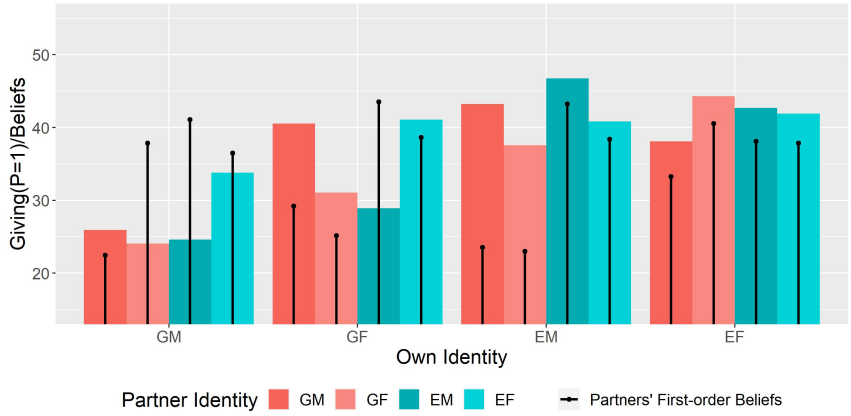


Figure 5: Giving in dictator game ($p = 1$), separated by participant's own identity and conditional on partner identity. Lines show partners' first-order beliefs.

tween genders in Germany. This is not the case within Egypt where the expectation almost perfectly matches actual giving.

Strong and significant differences occur between cultures: German males are expected to be more generous by Egyptian males than they actually are (41.08 vs. 24.59, p=0.009). Similarly, Egyptian males expect to receive more from German females than is actually the case (43.15 vs. 28.92, p=0.019). Germans of both genders thus do not fulfill the expectations of Egyptian males. A fitting story can be told on the behavior of Egyptian males towards Germans. They give significantly more to Germans than is expected: German males expect less than they receive from Egyptian males (23.51 vs. 43.24, p=0.002), the numbers are similar for German females (22.97 vs. 37.57, p=0.015). This indicates unfounded beliefs about low-giving behavior by Egyptian males. We interpret this as strong evidence of (negative) prejudice of Germans towards the behavior of Egyptian males.

4.4 Giving under the threat of rejection – Allocation and acceptance decisions in the ultimatum game

We now turn to analyze the results from the ultimatum game. Here, we first consider the offers. Figure 6 reports the offers for each proposer identity separated by the responder's identity.[24] The differences in allocations in UG vs. DG are illustrated in Figure 7.

For German participants, the threat of rejection in UG generally leads to higher offers than in DG, thereby confirming standard results. For German males, this applies independently of the identity of the responder (p<0.01), for German females the allocation in UG only increases relative to DG when matched with Egyptian males (p=0.0001). Similarly, Egyptian males tend to increase the offers toward Germans females (p=0.094). The threat of rejection thus tends to increase the allocation to recipients that were formerly

[24]Figure A8 in the Appendix shows a histogram on the distribution of choices in UG as well as the corresponding expectations by partners. We also report the allocation decision in UG as compared to DG (for $p = 1$) in Table A2.

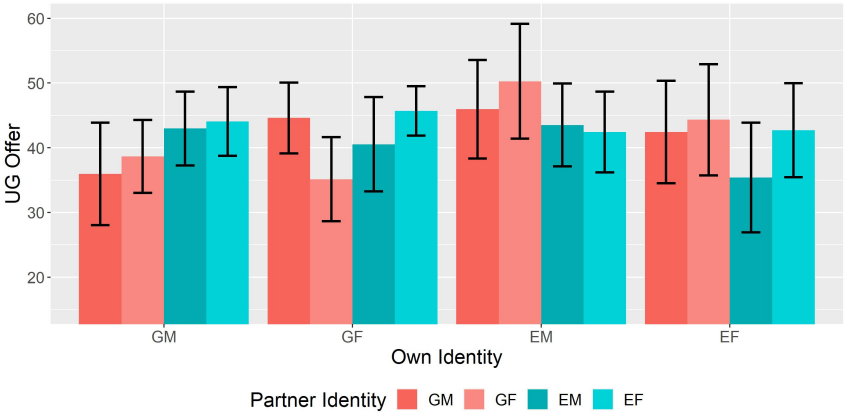


Figure 6: Ultimatum game offers, separated by participant's own identity and conditional on partner identity. Bars indicate 95%-confidence intervals.

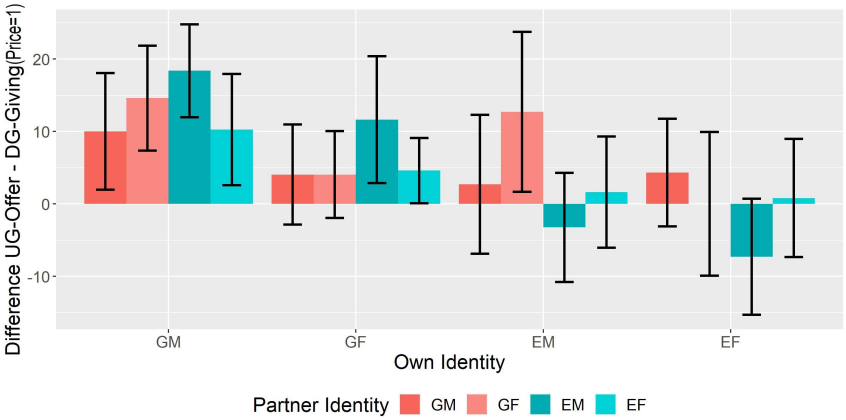


Figure 7: Difference between ultimatum game offers (black drop line) and dictator game offers ($p = 1$), separated by participant's own identity and conditional on partner identity.

discriminated against.[25]

In contrast to the typical increased allocation in UG relative to DG as found in the German sample, participants in Egypt do not necessarily increase their offers, supporting the results by Cochard et al. (2021) who finds that the gap between UG and DG offers increases with economic development. In fact, the offers by Egyptian females towards Egyptian males are even lower in UG than in DG (p=0.0276). While we do not want to overinterpret this result, it is worthwhile investigating potential mechanisms behind such reduction in the offer. One hypothesis is that – within the bargaining context of the UG – high offers might be rejected by Egyptian males, in line with ideas of pride to not rely on charity. In order to investigate this, we now turn to analyze the acceptance decisions by responders in more detail.

Figure 8 shows the acceptance rates for the respective offers for the respective responder

[25]Yet, German females still tend to discriminate by allocating less to partners of identity GF than EF (p=0.0046).

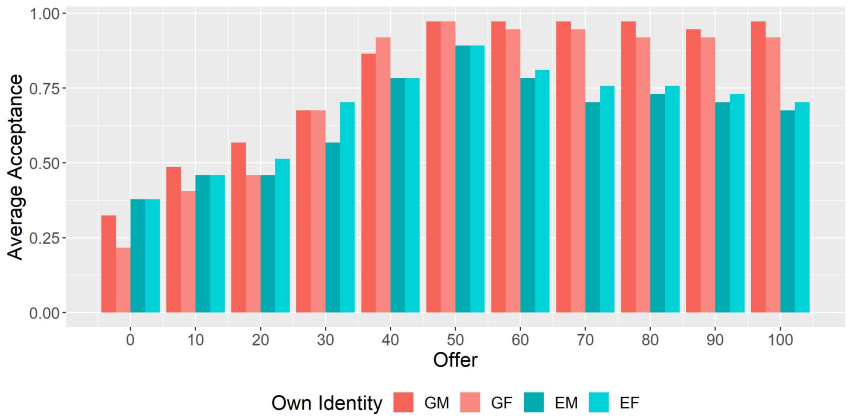


Figure 8: Average acceptance rates in ultimatum game for each offer ($x \in \{0, 10, \ldots, 100\}$), separated by identity of responder.

identities. Here, we pool across the different identities of proposers.[26] Not surprisingly, the average acceptance rates are increasing for offers below 50% and reach their maximum at $x = 50$. While this holds for all identities, Figure 8 suggests fascinating differences between cultures for offers beyond 50%, i.e. for hyper-fair offers.

In order to further investigate this, Table 6 reports results from linear probability models (individual random effects) that allow for a different slope of the mapping of offer size into acceptance probability for offers below 50% vs. above 50%. While acceptance is stable for German males (and only marginally decreasing for GF, with the difference between GM and GF not being significant), Egyptian responders show a starkly different acceptance behavior. For them, the acceptance rates are non-monotonic. That is, acceptance rates are declining for offers beyond 50. They are as low as 61% for EM and 66% for EF when the full amount of $x = 100$ is offered. The acceptance decisions by EM and EF thus indicate that their aversion to inequality that was identified in the dictator games also extends to an aversion to advantageous inequality, that is to receiving *too* much from a partner.

Such rejections of hyper-fair offers are occasionally observed in the literature (e.g., Bahry and Wilson, 2006; Güth et al., 2003; Hennig-Schmidt et al., 2008), and are mostly associated with small-scale societies, e.g., in Papua-Neuguinea (e.g., Henrich et al., 2005, 2006; Tracer, 2003) where up to 60% reject advantageous offers. Our finding thus adds to this literature by showing that highly advantageous offers are also rejected by a substantial share of BUE students who typically belong to the upper intermediate/intermediate social class in Egypt, i.e. in a lower middle-income country. Importantly, high rejection rates are observed independent of whether receiving an offer from a participant of the same or different culture. In line with Tracer (2003), we view rejections of high offers as driven by cultural beliefs about generosity as responders may not want to become indebted to the

[26] Figure A9 in the Appendix additionally separates these proposer identities. Some minor differences exist in the acceptance behavior depending on the identity of the proposer. For example, EM are more likely to reject offers of $x = 30$ from other Egyptians rather than from subjects in Germany (p =0.05).

proposer – even in the anonymous ultimatum game setting.

VARIABLES	GM accept	GF accept	EM accept	EF accept	ALL accept
GF					-0.00
					(-0.10)
EM					-0.16***
					(-4.66)
EF					-0.14***
					(-3.88)
$\frac{\min(-50+\text{offer},0)}{100}$	1.33***	1.52***	1.09***	0.91***	1.33***
	(23.78)	(26.34)	(15.29)	(13.36)	(20.95)
$\frac{\min(-50+\text{offer},0)}{100}$ x GF					0.19**
					(2.08)
$\frac{\min(-50+\text{offer},0)}{100}$ x EM					-0.24***
					(-2.69)
$\frac{\min(-50+\text{offer},0)}{100}$ x EF					-0.42***
					(-4.72)
$\frac{\max(0,\text{offer}-50)}{100}$	0.02	-0.10*	-0.38***	-0.30***	0.02
	(0.31)	(-1.80)	(-5.36)	(-4.38)	(0.27)
$\frac{\max(0,\text{offer}-50)}{100}$ x GF					-0.12
					(-1.35)
$\frac{\max(0,\text{offer}-50)}{100}$ x EM					-0.40***
					(-4.44)
$\frac{\max(0,\text{offer}-50)}{100}$ x EF					-0.31***
					(-3.50)
Constant	0.93***	0.92***	0.76***	0.79***	0.93***
	(43.67)	(41.68)	(27.59)	(27.89)	(37.04)
Observations	1,628	1,628	1,628	1,628	6,512
Number of subject	148	148	148	148	592

z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6: Random effects linear regressions on acceptance decisions given the level of the offer, separated by identity of responder (columns 1-4) and controlling for this identity (column 5). We use $\min(-50 + \text{offer}, 0)$ and $\max(0, \text{offer} - 50$ and their interactions with the identity of the responder (column 5) as explanatory variables to separate the estimate of the slope of the acceptance rate for offers below and beyond $x = 50$. The constant thus gives the acceptance rate at $x = 50$.

5 Discussion and Conclusions

We report experimental findings on distribution decisions by Germans and Egyptians. We explore their sensitivity along three different dimensions: we study (i) the impact of the price of giving, (ii) how giving responds to the cultural and gender identity of the recipient, and (iii) how a threat of rejection in a bargaining situation affects the distribution choice.

We find that Egyptians show substantial equality-seeking behavior and give signifi-

cantly more than German participants. When varying the price of giving, we see that both genders in Egypt as well as females in Germany increase giving when it becomes more costly, while German males respond by giving less. With this, we show that previous findings on gender differences in the price elasticity of giving are not robust to moving to a different culture. The equality-seeking attitudes of Egyptians are not conditional on the identity of the recipient. Again, this is hugely different for German participants who specifically discriminate by giving less to Egyptian males. The magnitude of this discrimination is similar to the impact of changing prices from $p = 0.5$ to $p = 2$, i.e. from quadrupling the price of giving. This discrimination based on cultural and gender background corresponds to implicitly revealed prejudice among German participants: males in Egypt give significantly more than what Germans expect from them. Conversely, males in Egypt overestimate the generosity of Germans towards them.

The cultural determinants of distributional decisions in our study thus do not only show substantial differences between cultures, yet they also demonstrate that behavior may be conditioned on the identity of the partner. Much of the differences are consistent with a lacking ability to predict the behavior of the partner when those were the ones to decide on the allocation. These mismatches in expectations and actions are prevalent for intercultural interaction, yet somewhat surprisingly also show up between genders within Germany.

Importantly, cultural differences do not only affect altruistic behavior but may also provide obstacles in negotiation contexts. Building on a simple ultimatum bargaining, we demonstrate that giving increases relative to the dictator game among German participants, but not among participants in Egypt. Females in Egypt even decrease giving in UG relative to DG when giving to males in Egypt. This finding is in line with a non-monotonic acceptance behavior: highly favorable offers are rejected by participants in Egypt. Within intercultural contexts, supposedly kind actions, i.e. generous actions towards the partner, may thus backfire. Negotiations may break down not just when asking for too much, but also when being too generous, both extremes being more complicated to determine when interacting with other cultures and when holding wrong beliefs on actions or preferences of the negotiations partner.

Methodologically, the non-monotonic acceptance decisions also reveal important lessons: (i) assumptions on parameter ranges within behavioral models may crucially depend on culture as well as the partner's identity.[27] (ii) Assessing acceptance decisions in ultimatum game settings should rely on a strategy methods that let participants enter their accept decision separately for each potential offer. That is, one should not ask to state a minimal acceptable offer level as this implicitly assumes monotonicity of acceptance decisions.

Our paper provides first evidence on altruistic behavior and the success of bargaining in intercultural contexts. Future research may show how these behaviors evolve in repeated

[27] The typical assumption advantageous inequity aversion within Fehr and Schmidt (1999) ($\beta < 1$) would not allow for rejecting advantageous offers ($x \geq 50$) within UG. The role of beliefs on the partner's type has been captured in models that allow for social self-esteem (e.g., Ellingsen and Johannesson, 2008). Our findings may inform such models within an intercultural context.

interactions.

References

Adena, M. (2014). Tax-price elasticity of charitable donations: Evidence from the german taxpayer panel. Technical report, WZB Discussion Paper.

Almås, I., Cappelen, A. W., and Tungodden, B. (2020). Cutthroat capitalism versus cuddly socialism: Are americans more meritocratic and efficiency-seeking than scandinavians? *Journal of Political Economy*, 128(5):1753–1788.

Amann, B. and Jaussaud, J. (2020). *Cross-cultural challenges in international management*. Routledge.

Andreoni, J. and Vesterlund, L. (2001). Which is the fair sex? gender differences in altruism. *The Quarterly Journal of Economics*, 116(1):293–312.

Arceo-Gomez, E. O. and Campos-Vazquez, R. M. (2014). Race and marriage in the labor market: A discrimination correspondence study in a developing country. *American Economic Review*, 104(5):376–80.

Baert, S. (2018). Hiring discrimination: An overview of (almost) all correspondence experiments since 2005. *Audit studies: Behind the scenes with theory, method, and nuance*, pages 63–77.

Bahry, D. L. and Wilson, R. K. (2006). Confusion or fairness in the field? rejections in the ultimatum game under the strategy method. *Journal of Economic Behavior & Organization*, 60(1):37–54.

Ben-Ner, A., Kong, F., and Putterman, L. (2004). Share and share alike? gender-pairing, personality, and cognitive ability as determinants of giving. *Journal of Economic Psychology*, 25(5):581–589.

Bertrand, M. and Mullainathan, S. (2004). Are emily and greg more employable than lakisha and jamal? a field experiment on labor market discrimination. *American Economic Review*, 94(4):991–1013.

Bock, O., Baetge, I., and Nicklisch, A. (2014). hroot: Hamburg registration and organization online tool. *European Economic Review*, 71:117–120.

Bornhorst, F., Ichino, A., Kirchkamp, O., Schlag, K. H., and Winter, E. (2010). Similarities and differences when building trust: the role of cultures. *Experimental Economics*, 13(3):260–283.

Boschini, A., Muren, A., and Persson, M. (2012). Constructing gender differences in the economics lab. *Journal of Economic Behavior & Organization*, 84(3):741–752.

Botelho, F., Madeira, R. A., and Rangel, M. A. (2015). Racial discrimination in grading: Evidence from brazil. *American Economic Journal: Applied Economics*, 7(4):37–52.

Bruhin, A., Janizzi, K., and Thöni, C. (2020). Uncovering the heterogeneity behind cross-cultural variation in antisocial punishment. *Journal of Economic Behavior & Organization*, 180:291–308.

Cappelen, A. W., Moene, K. O., Sørensen, E. Ø., and Tungodden, B. (2013). Needs versus entitlements—an international fairness experiment. *Journal of the European Economic Association*, 11(3):574–598.

Carpenter, J., Verhoogen, E., and Burks, S. (2005). The effect of stakes in distribution experiments. *Economics Letters*, 86(3):393–398.

Castro, M. F. (2008). Where are you from? cultural differences in public good experiments. *The Journal of Socio-Economics*, 37(6):2319–2329.

Chowdhury, S. M., Jeon, J. Y., and Saha, B. (2017). Gender differences in the giving and taking variants of the dictator game. *Southern Economic Journal*, 84(2):474–483.

Cochard, F., Le Gallo, J., Georgantzis, N., and Tisserand, J.-C. (2021). Social preferences across different populations: Meta-analyses on the ultimatum game and dictator game. *Journal of Behavioral and Experimental Economics*, 90:101613.

Costa-Gomes, M. A., Ju, Y., and Li, J. (2019). Role-reversal consistency: An experimental study of the golden rule. *Economic Inquiry*, 57(1):685–704.

Cox, T. H., Lobel, S. A., and McLeod, P. L. (1991). Effects of ethnic group cultural differences on cooperative and competitive behavior on a group task. *Academy of Management Journal*, 34(4):827–847.

Croson, R. and Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature*, 47(2):448–74.

David, Y. (2022). The effects of exposure to gendered stereotypes on emotions toward immigrants and attitudes toward refugees. *Journal of Ethnic and Migration Studies*, pages 1–22.

Diekmann, I. (2020). Differentiation between religion and individuals? measuring hostile attitudes towards islam and muslims in germany. In *Religion, Migration, and Existential Wellbeing*, pages 53–67. Routledge.

Doñate-Buendía, A., García-Gallego, A., and Petrović, M. (2022). Gender and other moderators of giving in the dictator game: A meta-analysis. *Journal of Economic Behavior & Organization*, 198:280–301.

Dorrough, A. R. and Glöckner, A. (2016). Multinational investigation of cross-societal cooperation. *Proceedings of the National Academy of Sciences*, 113(39):10836–10841.

Dorrough, A. R. and Glöckner, A. (2019). A cross-national analysis of sex differences in prisoner's dilemma games. *British Journal of Social Psychology*, 58(1):225–240.

Dorrough, A. R., Olsson, M. I., Froehlich, L., Glöckner, A., and Martiny, S. E. (2021). Does she compensate the victim while he punishes the perpetrator? no gender differences in anonymous economic games across 11 nations. *Journal of Behavioral Decision Making*, 34(2):261–274.

Drake, L. E. (2001). The culture-negotiation link. integrative and distributive bargaining through an intercultural communication lens. *Human Communication Research*, 27(3):317–349.

Ellingsen, T. and Johannesson, M. (2008). Pride and prejudice: The human side of incentive theory. *American economic review*, 98(3):990–1008.

Engel, C. (2011). Dictator games: A meta study. *Experimental economics*, 14:583–610.

Ewens, M., Tomlin, B., and Wang, L. C. (2014). Statistical discrimination or prejudice? a large sample field experiment. *Review of Economics and Statistics*, 96(1):119–134.

Fehr, E. and Schmidt, K. M. (1999). A theory of fairness, competition, and cooperation. *The Quarterly Journal of Economics*, 114(3):817–868.

Fershtman, C. and Gneezy, U. (2001). Discrimination in a segmented society: An experimental approach. *The Quarterly Journal of Economics*, 116(1):351–377.

Fisman, R., Kariv, S., and Markovits, D. (2007). Individual preferences for giving. *American Economic Review*, 97(5):1858–1876.

Flage, A. (2018). Ethnic and gender discrimination in the rental housing market: Evidence from a meta-analysis of correspondence tests, 2006–2017. *Journal of Housing Economics*, 41:251–273.

Friedl, A., Pondorfer, A., and Schmidt, U. (2020). Gender differences in social risk taking. *Journal of Economic Psychology*, 77:102182.

Friedrichs, N. and Storz, N. (2022). Antimuslimische und antisemitische einstellungen im einwanderungsland – (k)ein einzelfall? Svr-studie, 2022-2, berlin, The Expert Council on Integration and Migration (SVR), `https://www.svr-migration.de/wp-content/uploads/2022/10/Summary_Study_anti_muslim_and_anti_semitiv_attitudes.pdf`.

Gächter, S. and Schulz, J. F. (2016). Intrinsic honesty and the prevalence of rule violations across societies. *Nature*, 531(7595):496–499.

Georg, S., Güth, W., Walkowitz, G., and Weiland, T. (2008). Distributive fairness in an intercultural ultimatum game. Technical report, Jena Economic Research Papers.

Gneezy, U., Niederle, M., and Rustichini, A. (2003). Performance in competitive environments: Gender differences. *The Quarterly Journal of Economics*, 118(3):1049–1074.

Goerg, S. J., Güth, W., Walkowitz, G., and Weiland, T. (2007). Interregional diversity of fairness concerns: an online ultimatum experiment. Technical report, Jena Economic Research Papers.

Goerg, S. J., Hennig-Schmidt, H., Walkowitz, G., and Winter, E. (2016). In wrong anticipation-miscalibrated beliefs between germans, israelis, and palestinians. *PloS one*, 11(6):e0156998.

Guiso, L., Sapienza, P., and Zingales, L. (2006). Does culture affect economic outcomes? *Journal of Economic Perspectives*, 20(2):23–48.

Güth, W., Schmittberger, R., and Schwarze, B. (1982). An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior & Organization*, 3(4):367–388.

Güth, W., Sutter, M., and Schmidt, C. (2003). Fairness in the mail and opportunism in the internet: A newspaper experiment on ultimatum bargaining. *German Economic Review*, 4(2):243–265.

Guzman, J. and Kacperczyk, A. O. (2019). Gender gap in entrepreneurship. *Research Policy*, 48(7):1666–1680.

Hedegaard, M. S. and Tyran, J.-R. (2018). The price of prejudice. *American Economic Journal: Applied Economics*, 10(1):40–63.

Hennig-Schmidt, H., Li, Z.-Y., and Yang, C. (2008). Why people reject advantageous offers—non-monotonic strategies in ultimatum bargaining: Evaluating a video experiment run in pr china. *Journal of Economic Behavior & Organization*, 65(2):373–384.

Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., McElreath, R., Alvard, M., Barr, A., Ensminger, J., et al. (2005). "economic man" in cross-cultural perspective: Behavioral experiments in 15 small-scale societies. *Behavioral and Brain Sciences*, 28(6):795–855.

Henrich, J., McElreath, R., Barr, A., Ensminger, J., Barrett, C., Bolyanatz, A., Cardenas, J. C., Gurven, M., Gwako, E., Henrich, N., et al. (2006). Costly punishment across human societies. *Science*, 312(5781):1767–1770.

Herrmann, B., Thoni, C., and Gachter, S. (2008). Antisocial punishment across societies. *Science*, 319(5868):1362–1367.

Hoekstra, M. and Sloan, C. (2022). Does race matter for police use of force? evidence from 911 calls. *American Economic Review*, 112(3):827–60.

Hopp, D. (2022). High incentives without high cost-the role of (perceived) stake sizes in dictator games. *Journal of Behavioral and Experimental Economics*, 97:101843.

Horak, S. (2018). From cross-cultural economic experiments to experimental indigenous management research–a suggestion. *Management and Organization Review*, 14(4):651–691.

Kamas, L. and Preston, A. (2015). Can social preferences explain gender differences in economic behavior? *Journal of Economic Behavior & Organization*, 116:525–539.

Kashima, Y. (2000). Maintaining cultural stereotypes in the serial reproduction of narratives. *Personality and Social Psychology Bulletin*, 26(5):594–604.

LimeSurvey Project Team / Carsten Schmitz (2012). *LimeSurvey: An Open Source survey tool*. LimeSurvey Project, Hamburg, Germany.

List, J. A. and Cherry, T. L. (2008). Examining the role of fairness in high stakes allocation decisions. *Journal of Economic Behavior & Organization*, 65(1):1–8.

Matsumoto, D. and Hwang, H. C. (2015). The role of contempt in intercultural cooperation. *Cross-Cultural Research*, 49(5):439–460.

Matsumoto, D. and Hwang, H. S. (2011). Cooperation and competition in intercultural interactions. *International Journal of Intercultural Relations*, 35(5):677–685.

Niederle, M. and Vesterlund, L. (2007). Do women shy away from competition? do men compete too much? *The Quarterly Journal of Economics*, 122(3):1067–1101.

Öblom, A. and Antfolk, J. (2017). Ethnic and gender discrimination in the private rental housing market in finland: A field experiment. *PloS one*, 12(8):e0183344.

Oreopoulos, P. (2011). Why do skilled immigrants struggle in the labor market? a field experiment with thirteen thousand resumes. *American Economic Journal: Economic Policy*, 3(4):148–71.

Oxoby, R. J. and McLeish, K. N. (2004). Sequential decision and strategy vector methods in ultimatum bargaining: evidence on the strength of other-regarding behavior. *Economics Letters*, 84(3):399–405.

Pettigrew, T. F., Christ, O., Wagner, U., and Stellmacher, J. (2007). Direct and indirect intergroup contact effects on prejudice: A normative interpretation. *International Journal of intercultural relations*, 31(4):411–425.

Pickel, G. and Yendell, A. (2016). Islam als bedrohung? *Zeitschrift für vergleichende Politikwissenschaft*, 3(10):273–309.

Price, J. and Wolfers, J. (2010). Racial discrimination among nba referees. *The Quarterly journal of economics*, 125(4):1859–1887.

Rigdon, M. L., Levine, A. S., et al. (2018). Gender, expectations, and the price of giving. *Review of Behavioral Economics*, 5(1):39–59.

Roth, A. E., Prasnikar, V., Okuno-Fujiwara, M., and Zamir, S. (1991). Bargaining and market behavior in jerusalem, ljubljana, pittsburgh, and tokyo: An experimental study. *The American Economic Review*, pages 1068–1095.

Sharma, P., Tam, J., and Wu, Z. (2018). Challenges and opportunities for services marketers in a culturally diverse global marketplace. *Journal of Services Marketing*.

Takahashi, C., Yamagishi, T., Liu, J. H., Wang, F., Lin, Y., and Yu, S. (2008). The intercultural trust paradigm: Studying joint cultural interaction and social exchange in real time over the internet. *International Journal of Intercultural Relations*, 32(3):215–228.

Tjaden, J. D., Schwemmer, C., and Khadjavi, M. (2018). Ride with me—ethnic discrimination, social markets, and the sharing economy. *European Sociological Review*, 34(4):418–432.

Tracer, D. (2003). Selfishness and fairness in economic and evolutionary perspective: An experimental economic study in papua new guinea. *Current Anthropology*, 44(3):432–438.

Visser, M. S. and Roelofs, M. R. (2011). Heterogeneous preferences for altruism: Gender and personality, social status, giving and taking. *Experimental Economics*, 14(4):490–506.

Wigger, I. (2017). *The'Black horror on the Rhine': intersections of race, nation, gender and class in 1920s Germany*. Springer.

Wigger, I. (2019). Anti-muslim racism and the racialisation of sexual violence:'intersectional stereotyping'in mass media representations of male muslim migrants in germany. *Culture and religion*, 20(3):248–271.

Younkin, P. and Kuppuswamy, V. (2018). The colorblind crowd? founder race and performance in crowdfunding. *Management Science*, 64(7):3269–3287.

Zussman, A. (2013). Ethnic discrimination: Lessons from the israeli online market for used cars. *The Economic Journal*, 123(572):F433–F468.

A Additional tables and figures

		$\bar{x}$	Share $x > 0$	$\bar{x}\|x > 0$	Share $x > 50$
GM	$p = 0.5$	32.57	0.764	42.65	0.155
		(29.60)	(0.426)	(26.76)	(0.364)
	$p = 1$	27.09	0.642	42.21	0.041
		(25.19)	(0.481)	(18.63)	(0.198)
	$p = 2$	25.74	0.574	44.82	0.189
		(26.98)	(0.496)	(20.21)	(0.393)
GF	$p = 0.5$	28.72	0.885	32.44	0.054
		(18.49)	(0.320)	(16.27)	(0.227)
	$p = 1$	35.41	0.845	41.92	0.068
		(21.80)	(0.364)	(16.98)	(0.252)
	$p = 2$	35.54	0.791	44.96	0.297
		(25.96)	(0.408)	(20.66)	(0.459)
EM	$p = 0.5$	38.92	0.899	43.31	0.209
		(26.19)	(0.303)	(23.92)	(0.408)
	$p = 1$	42.09	0.899	46.84	0.122
		(23.25)	(0.303)	(19.44)	(0.328)
	$p = 2$	48.51	0.878	55.23	0.446
		(28.05)	(0.328)	(22.87)	(0.499)
EF	$p = 0.5$	35.47	0.939	37.77	0.142
		(24.81)	(0.240)	(23.84)	(0.350)
	$p = 1$	41.76	0.953	43.83	0.128
		(21.50)	(0.213)	(19.84)	(0.336)
	$p = 2$	45.47	0.926	49.12	0.372
		(29.33)	(0.263)	(27.37)	(0.485)

Table A1: Summary statistics (mean (sd)) of amount ($x \in \{0, 10, \ldots, 90, 100\}$) given (average, share of participants with $x > 0$, conditional giving, and share with $x > 50$) in dictator games at the respective price of giving $p \in \{0.5, 1, 2\}$, separated by participant's own identity.

Own identity	Partner Identity	DG	UG	WSRT
GM	GM	25.95	35.95	p=0.0099
		(28.33)	(23.74)	
	GF	24.05	38.65	p=0.0001
		(21.27)	(16.86)	
	EM	24.59	42.97	p=0.0000
		(21.03)	(17.14)	
	EF	33.78	44.05	p=0.0027
		(28.81)	(15.89)	
GF	GM	40.54	44.59	p=0.2865
		(20.94)	(16.43)	
	GF	31.08	35.14	p=0.142
		(18.53)	(19.53)	
	EM	28.92	40.54	p=0.0001
		(27.06)	(21.85)	
	EF	41.08	45.68	p=0.0894
		(17.45)	(11.44)	
EM	GM	43.24	45.95	p=0.1109
		(26.25)	(22.79)	
	GF	37.57	50.27	p=0.0941
		(24.54)	(26.61)	
	EM	46.76	43.51	p=0.6139
		(21.22)	(19.18)	
	EF	40.81	42.43	p=0.2761
		(20.46)	(18.77)	
EF	GM	38.11	42.43	p=0.2095
		(20.39)	(23.74)	
	GF	44.32	44.32	p=0.3925
		(20.62)	(25.77)	
	EM	42.70	35.41	p=0.0276
		(23.88)	(25.45)	
	EF	41.89	42.70	p=0.7552
		(21.32)	(21.81)	

Table A2: Summary statistics (mean (sd)) of giving x in UG vs. DG ($p = 1$), separated by participant's own and partner's identity. The last column gives results from Wilcoxon signed-rank test, comparing giving in both games.

	$p = 0.5$				$p = 1$				$p = 2$			
	GM	GF	EM	EF	GM	GF	EM	EF	GM	GF	EM	EF
GF	0.877	-			0.001	-			0.000	-		
EM	0.011	0.000	-		0.000	0.000	-		0.000	0.000	-	
EF	0.119	0.064	0.186	-	0.036	0.017	0.757	-	0.000	0.009	0.216	-

Table A3: P-vals derived from rank sum test (WRST) comparing giving x in dictator games ($p \in \{0.5, 1, 2\}$) between participant's own identities.

	giving (x)	giving (x)
GF	4.75**	8.31***
	(2.10)	(2.83)
EM	14.71***	15.00***
	(6.49)	(5.10)
EF	12.43***	14.66***
	(5.48)	(4.99)
$(p = 0.5)$	-2.67**	5.47**
	(-2.29)	(2.39)
$(p = 2)$	2.23*	-1.35
	(1.92)	(-0.59)
$(p = 0.5)$ x GF		-12.16***
		(-3.75)
$(p = 2)$ x GF		1.49
		(0.46)
$(p = 0.5)$ x EM		-8.65***
		(-2.67)
$(p = 2)$ x EM		7.77**
		(2.39)
$(p = 0.5)$ x EF		-11.76***
		(-3.62)
$(p = 2)$ x EF		5.07
		(1.56)
Constant	28.61***	27.09***
	(16.46)	(13.03)
Observations	1,776	1,776
Number of subject	592	592

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table A4: Individual random effects linear regression on the amount x given in dictator games, controlling for participant's own identity and price of giving (dummy variables for $p \in \{0.5, 1, 2\}$).

		Own Identity							
		GM	GM	GF	GF	EM	EM	EF	EF
Partner Identity	GF	0.00	-1.89	-8.11*	-9.46*	1.08	-5.68	5.59	6.22
		(0.00)	(-0.30)	(-1.95)	(-1.85)	(0.24)	(-0.94)	(1.32)	(1.05)
	EM	-0.81	-1.35	-11.62***	-11.62**	1.89	3.51	-1.53	4.59
		(-0.16)	(-0.21)	(-2.79)	(-2.28)	(0.41)	(0.58)	(-0.36)	(0.78)
	EF	5.86	7.84	-0.54	0.54	0.36	-2.43	-1.17	3.78
		(1.16)	(1.23)	(-0.13)	(0.11)	(0.08)	(-0.40)	(-0.28)	(0.64)
	$(p = 0.5)$ x GF		1.08		2.97		16.49**		-1.62
			(0.16)		(0.58)		(2.41)		(-0.23)
	$(p = 2)$ x GF		4.59		1.08		3.78		-0.27
			(0.68)		(0.21)		(0.55)		(-0.04)
	$(p = 0.5)$ x EM		-4.32		1.08		-1.35		-4.32
			(-0.64)		(0.21)		(-0.20)		(-0.61)
	$(p = 2)$ x EM		5.95		-1.08		-3.51		-14.05**
			(0.89)		(-0.21)		(-0.51)		(-1.97)
	$(p = 0.5)$ x EF		-4.05		-2.70		8.92		-4.05
			(-0.60)		(-0.53)		(1.30)		(-0.57)
	$(p = 2)$ x EF		-1.89		-0.54		-0.54		-10.81
			(-0.28)		(-0.11)		(-0.08)		(-1.52)
	$(p = 0.5)$	5.47**	7.30	-6.69***	-7.03*	-3.18	-9.19*	-6.28**	-3.78
		(2.32)	(1.54)	(-3.74)	(-1.95)	(-1.30)	(-1.90)	(-2.49)	(-0.75)
	$(p = 2)$	-1.35	-3.51	0.14	0.27	6.42***	6.49	3.72	10.00**
		(-0.57)	(-0.74)	(0.08)	(0.08)	(2.64)	(1.34)	(1.47)	(1.99)
	Constant	25.83***	25.95***	40.47***	40.54***	41.26***	43.24***	41.04***	38.11***
		(6.75)	(5.76)	(12.96)	(11.24)	(11.71)	(10.13)	(12.34)	(9.14)
	Observations	444	444	444	444	444	444	444	444
	Number of subject	148	148	148	148	148	148	148	148

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table A5: Individual random effects regressions on amount x given in dictator games, separated by participant's own identities (columns), and controlling for partner's identity and price of giving (dummy variables for $p \in \{0.5, 1, 2\}$).

		Own Identity							
		GM	GM	GF	GF	EM	EM	EF	EF
Partner Identity	GF	−0.14	−0.14	−7.51*	−7.51*	2.41	2.41	4.69	4.69
		(−0.03)	(−0.03)	(−1.80)	(−1.80)	(0.53)	(0.53)	(1.07)	(1.07)
	EF	−0.52	−0.52	−10.11**	−10.11**	2.01	2.01	−1.61	−1.61
		(−0.10)	(−0.10)	(−2.42)	(−2.42)	(0.45)	(0.45)	(−0.37)	(−0.37)
	EM	5.79	5.79	0.78	0.78	0.99	0.99	−0.66	−0.66
		(1.09)	(1.09)	(0.18)	(0.18)	(0.21)	(0.21)	(−0.15)	(−0.15)
	$\log_2(p)$ x GF		1.76		−0.95		−6.35*		0.68
			(0.53)		(−0.37)		(−1.85)		(0.19)
	$\log_2(p)$ x EM		5.14		−1.08		−1.08		−4.86
			(1.54)		(−0.42)		(−0.32)		(−1.37)
	$\log_2(p)$ x EM		1.08		1.08		−4.73		−3.38
			(0.32)		(0.42)		(−1.38)		(−0.95)
	$\log_2(p)$	−3.41***	−5.41**	3.41***	3.65**	4.80***	7.84***	5.00***	6.89***
		(−2.89)	(−2.29)	(3.80)	(2.02)	(3.94)	(3.23)	(3.97)	(2.74)
	age	0.43	0.43	−0.27	−0.27	1.37	1.37	0.09	0.09
		(0.97)	(0.97)	(−1.19)	(−1.19)	(1.25)	(1.25)	(0.08)	(0.08)
	siblings	0.42	0.42	−0.53	−0.53	−2.93***	−2.93***	−1.43	−1.43
		(0.29)	(0.29)	(−0.47)	(−0.47)	(−2.58)	(−2.58)	(−1.32)	(−1.32)
	christian	3.76	3.76	7.30**	7.30**	−2.96	−2.96	3.62	3.62
		(0.86)	(0.86)	(2.04)	(2.04)	(−0.31)	(−0.31)	(0.31)	(0.31)
	muslim	5.68	5.68	−0.99	−0.99	2.45	2.45	0.25	0.25
		(0.74)	(0.74)	(−0.12)	(−0.12)	(0.30)	(0.30)	(0.02)	(0.02)
	religiousness	−0.23	−0.23	0.14	0.14	0.17	0.17	−0.25	−0.25
		(−0.32)	(−0.32)	(0.21)	(0.21)	(0.24)	(0.24)	(−0.29)	(−0.29)
	riskaversion	0.41	0.41	−0.90	−0.90	−0.49	−0.49	−1.16	−1.16
		(0.49)	(0.49)	(−1.33)	(−1.33)	(−0.61)	(−0.61)	(−1.47)	(−1.47)
	othernat	−0.49	−0.49	−4.25	−4.25	−21.08**	−21.08**	−2.43	−2.43
		(−0.09)	(−0.09)	(−1.17)	(−1.17)	(−2.56)	(−2.56)	(−0.21)	(−0.21)
	Constant	12.07	12.07	47.95***	47.95***	19.28	19.28	46.35**	46.35**
		(0.85)	(0.85)	(5.95)	(5.95)	(0.83)	(0.83)	(2.01)	(2.01)
	Observations	444	444	444	444	444	444	444	444
	N	148	148	148	148	148	148	148	148

z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

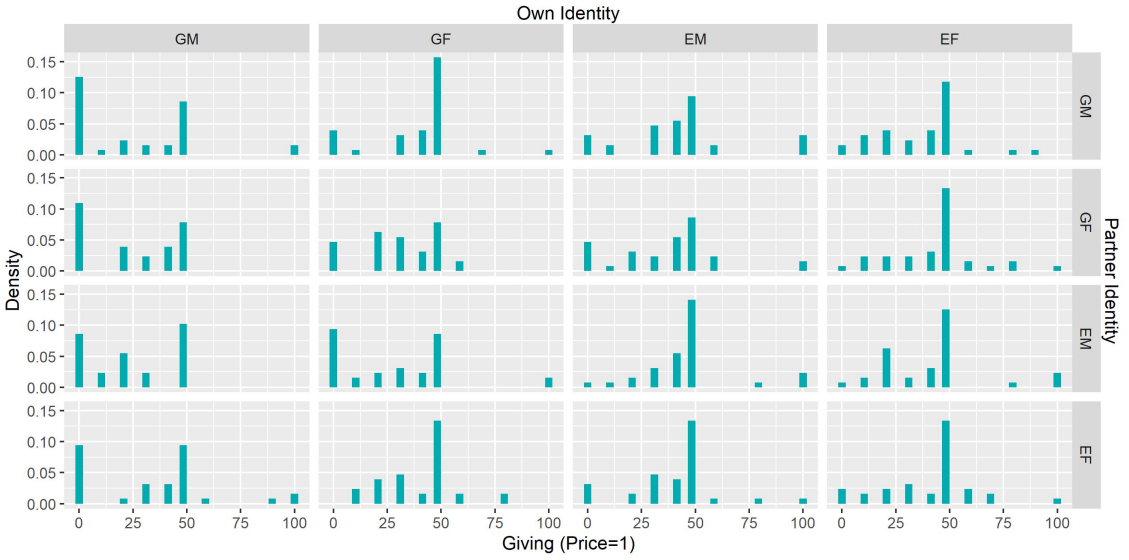
Table A6: Individual random effects regressions on amount x given in dictator games, separated by participant's own identities (columns), and controlling for partner's identity and price of giving ($\log_2(p)$, $p \in \{0.5, 1, 2\}$) as well as socio-demographic variables. We exclude dummies for being married and having children as there is no variation for these variables within the EM/EF samples.

		GF		
		ALL	Christian=1	Christian=0
Partner Identity	GF	-7.51*	-9.33	-5.63
		(-1.80)	(-1.25)	(-1.09)
	EM	-10.11**	-1.16	-15.93***
		(-2.42)	(-0.16)	(-3.15)
	EF	0.78	-2.29	2.64
		(0.18)	(-0.29)	(0.52)
	log price	3.41***	6.27***	1.72*
		(3.80)	(3.78)	(1.68)
	christian	7.30**		
		(2.04)		
	age	-0.27	-0.14	-0.37
		(-1.19)	(-0.21)	(-1.61)
	siblings	-0.53	0.76	-1.20
		(-0.47)	(0.26)	(-1.02)
	muslim	-0.99		-4.14
		(-0.12)		(-0.49)
	religiousness	0.14	0.04	0.78
		(0.21)	(0.04)	(0.83)
	risk	-0.90	-0.17	-1.34*
		(-1.33)	(-0.12)	(-1.76)
	othernat	-4.25	-1.89	-2.70
		(-1.17)	(-0.21)	(-0.69)
	Constant	47.95***	45.46**	53.07***
		(5.95)	(2.29)	(6.21)
	Observations	444	165	279
	Number of subject	148	55	93

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

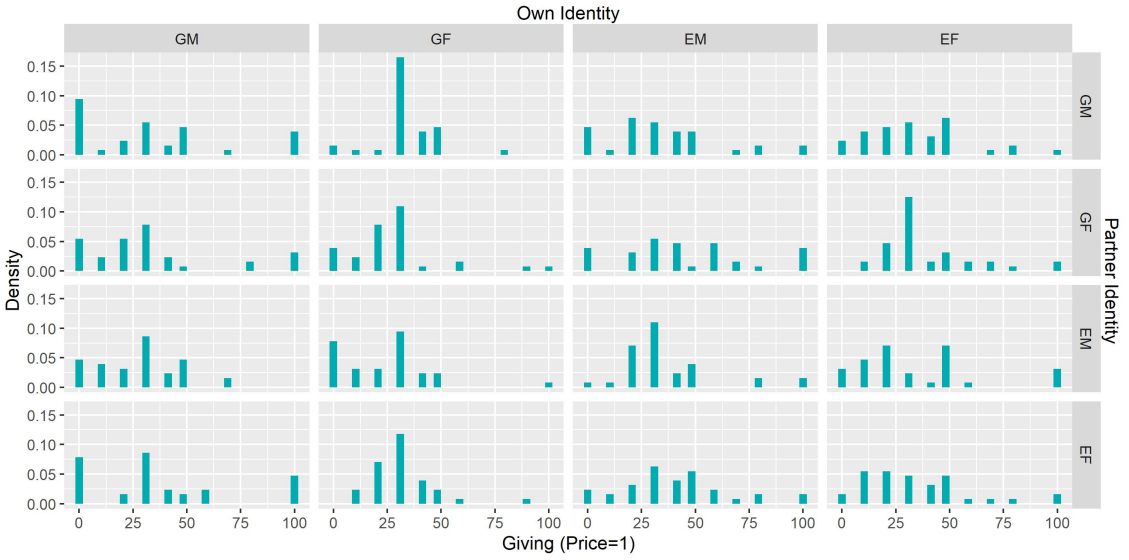
Table A7: Individual random effects regressions on amount x given by German females in dictator games (all GF in column 1, only those stating Christian religion, Christian=1, in column 2, and Christian=0 in column 3), each controlling for partner's identity, price of giving ($\log_2(p)$, $p \in \{0.5, 1, 2\}$) as well as socio-demographic variables.



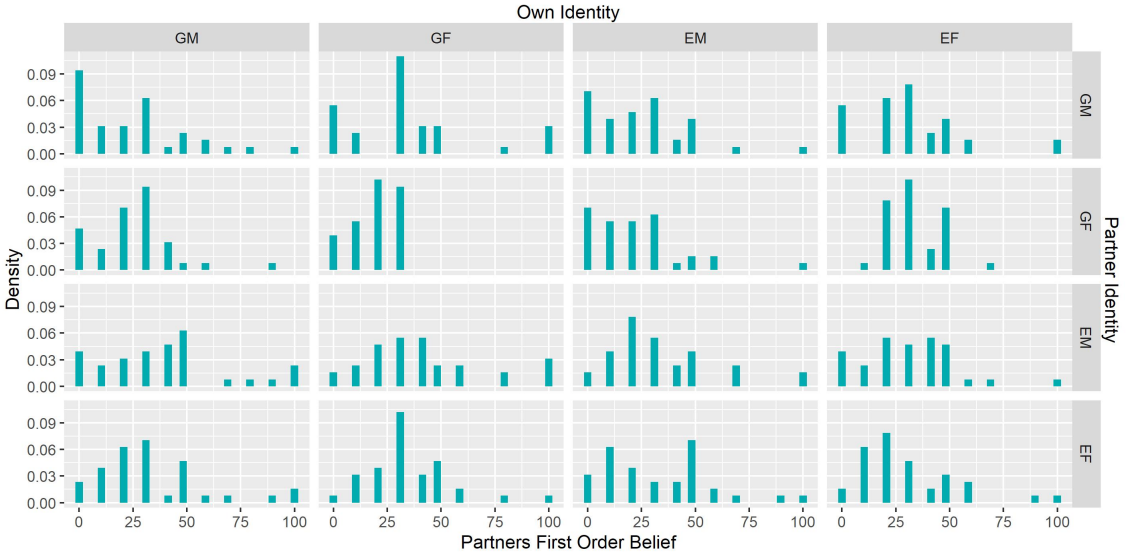
(i)

(ii)

Figure A1: Distribution of giving x in dictator game for price $p = 1$ (panel (i)), and the corresponding expectations by partners (panel (ii)), both separated by participant's own and partner's identities.

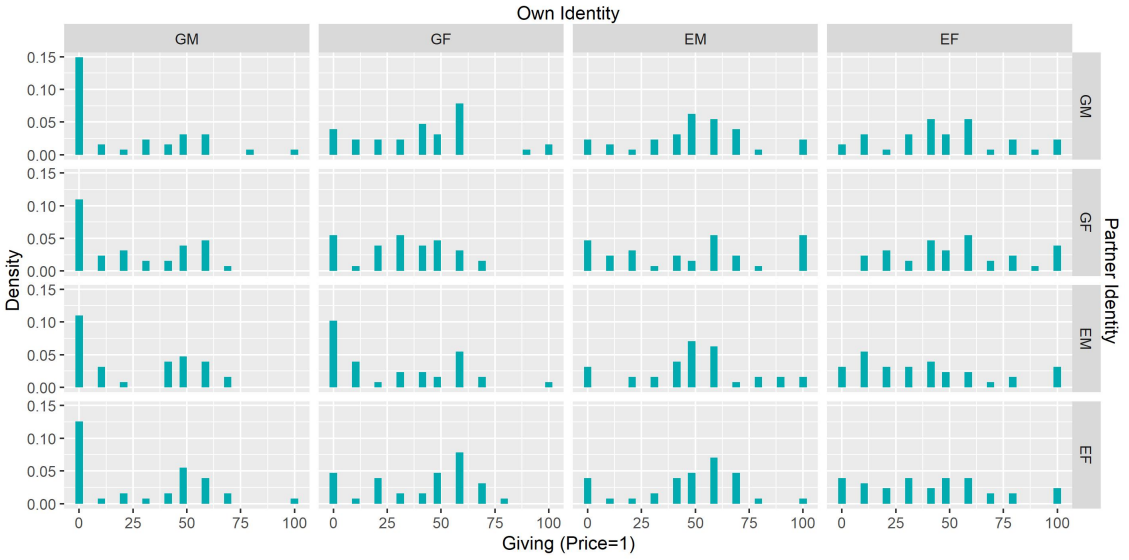


(i)



(ii)

Figure A2: Distribution of giving x in dictator game for price $p = 0.5$ (panel (i)), and the corresponding expectations by partners (panel (ii)), both separated by participant's own and partner's identities.



(i)

(ii)

Figure A3: Distribution of giving x in dictator game for price $p = 2$ (panel (i)), and the corresponding expectations by partners (panel (ii)), both separated by participant's own and partner's identities.

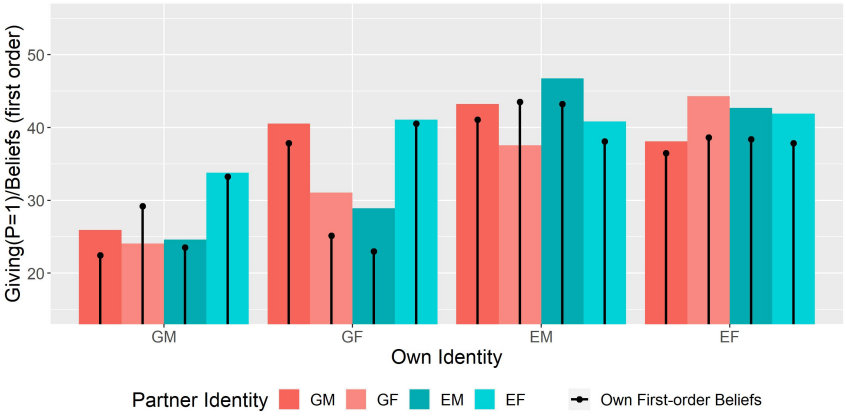


Figure A4: Giving in dictator game ($p = 1$), separated by participant's own identity and conditional on partner's identity. Lines show own first order beliefs.

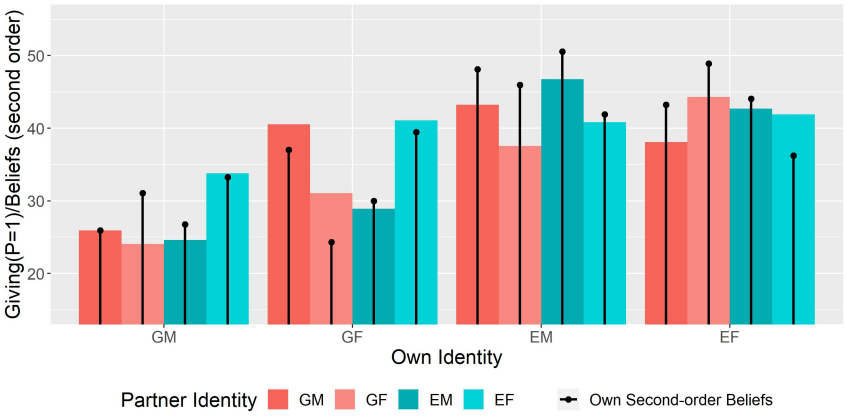


Figure A5: Giving in dictator game ($p = 1$), separated by participant's own identity and conditional on partner's identity. Lines show own second order beliefs.

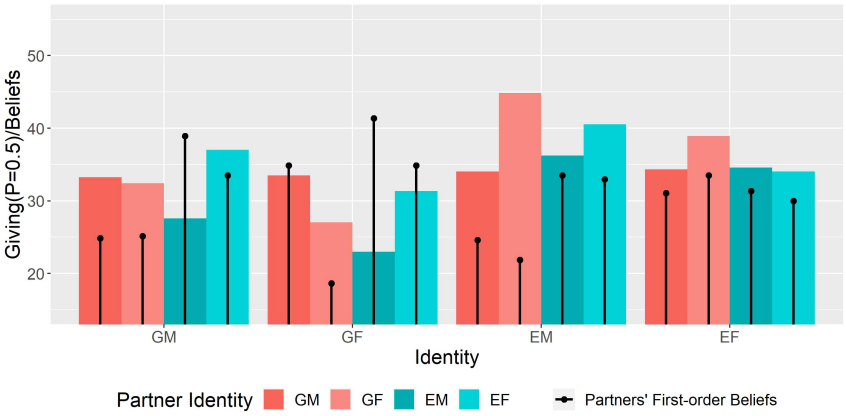


Figure A6: Giving in dictator game ($p = 0.5$), separated by participant's own identity and conditional on partner's identity. Lines show own first order beliefs.

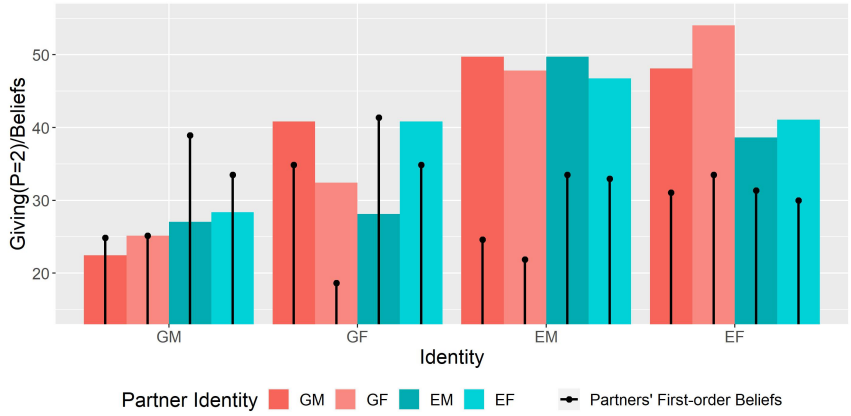
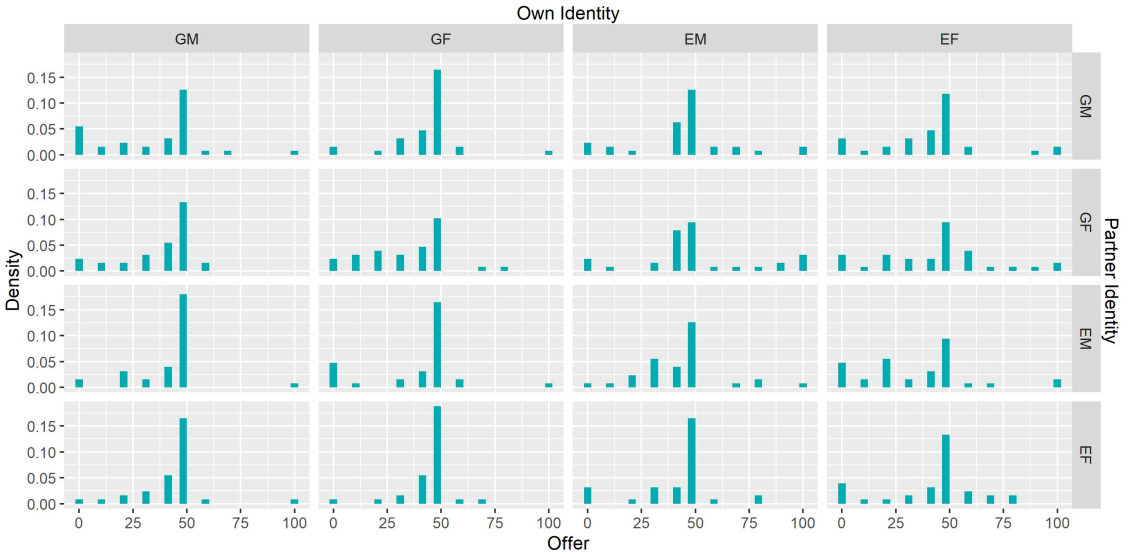


Figure A7: Giving in dictator game ($p = 2$), separated by participant's own identity and conditional on partner's identity. Lines show own first order beliefs.



(i)

(ii)

Figure A8: Distribution of offers in ultimatum game (panel (i)), and the corresponding expectations by partners (panel (ii)), both separated by participant's own and partner's identities.

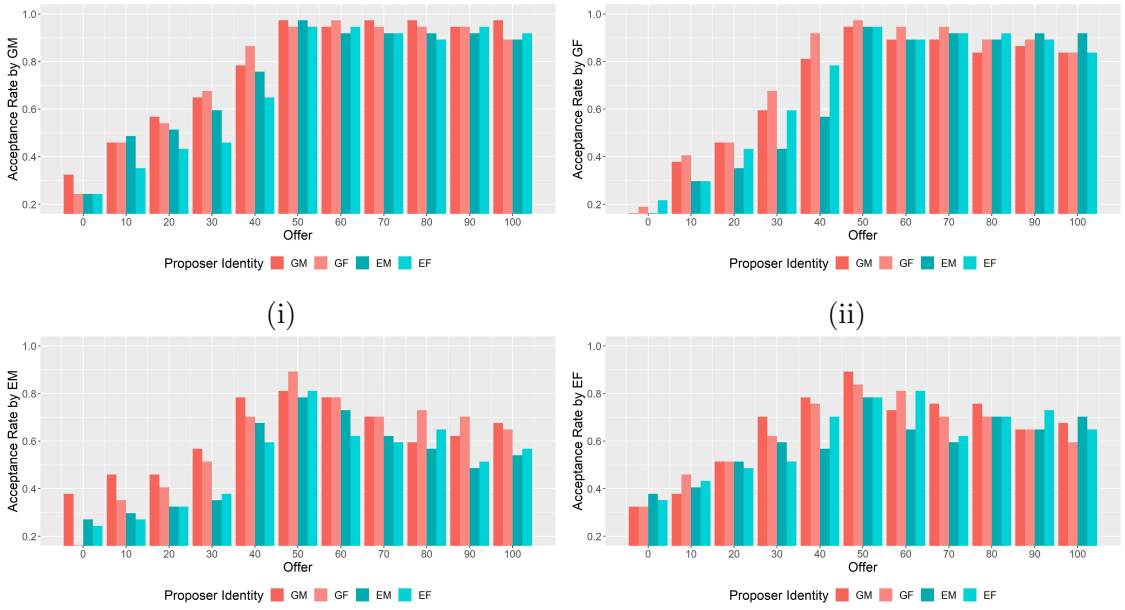


Figure A9: Average acceptance rates in ultimatum game for each offer ($x \in \{0, 10, \ldots, 100\}$) for (i) GM responder, (ii) GF responder, (iii) EM responder, (iv) EF responder, each separated by identity of proposer.

B Experimental Instructions

Welcome to this online experiment on decision-making with participants both in Egypt and Germany.

We are interested in your opinion and your decisions. All decisions are analyzed anonymously. Please answer all questions.
In this experiment, you may earn some money that will be paid to you privately. The amount of money that we pay out to you depends on your decisions and the decisions of other participants. During the experiment, we do not talk about Euros (Pounds) but about points. After the experiment, we will transfer all the points you have earned and convert them at 10 points equals 0.50 Euro (9 Pounds) and cash the Euros (Pounds) out to you.
Independent of the currency, one point will always have the same monetary value for all participants.
Regardless of your decisions, you and all other participants will receive a base payment of 55 points for completing the experiment. If you don't complete the experiment you will not receive any payment.
For the payment, we will contact you via email once all participants have completed the experiment.
The experiment consists of five tasks. In each task, you will be matched with another anonymous interaction partner. You will not be matched with the same person in each task. Always keep in mind: How much you earn depends on your decisions and the decisions of other participants.
Notice, in all five tasks you will always be matched with an German male (German female/ Egyptian male/Egyptian female).

You will take part in all five tasks. However, only one of the five tasks will be randomly selected afterwards and paid out to you. After you have made your decisions in the five tasks, there will follow some socio- demographic questions (e.g., age, etc.), please make sure to answer **all** the questions.

In the following, we will explain each of the five tasks one after another in detail and ask for your decisions.

Task 1

In this task, there are two roles that you can potentially have as a participant: Person A and Person B. Person A makes a decision that determines the payoff for Person A, and Person B. Person A receives an endowment of 100 points. Person A can transfer any part of the endowment to Person B. Person A can only choose multiples of 10 [0, 10, 20, 30, ..., 100]. Person B receives no endowment and earns what has been transferred by Person A and makes no decision. Person A earns the rest of the endowment that is not transferred to Person B.

The payoffs are calculated as follows:

Payment for Person A:

100 points minus the amount transferred from Person A to Person B

Payment for Person B:

Amount transferred from Person A to Person B

That is, for every point Person A transfers to Person B, Person B earns one point. In other words, if Person A wants to transfer 20 points to Person B, it costs Person A 20 points of the endowment.

Every participant first takes a decision in the role of Person A. Every participant makes the described decision once. At the end of the task, every participant is randomly assigned the role of person A or the role of Person B. After the assignment, exactly half of the participants have the role of Person A. The other half of the participants have the role of Person B. Every Person A is randomly matched with a Person B. The payoff of Person A depends on the decision Person A has taken in the role of Person A. The payoff of Person B depends on the decision of Person A within a matching group, respectively. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

If you are Person A, how much do you transfer to Person B?

0	10	20	30	40	50	60	70	80	90	100

Task 2

In this task, there are again two roles that you can potentially have as a participant: Person A and Person B. Task (2) follows very similar rules as Task (1): Person A makes a decision that determines the payoff for Person A and Person B. Person A receives an endowment of 100 points. Person A can transfer any part of the endowment to Person B. Person A can only choose multiples of 10 [0, 10, 20, 30, ..., 100]. Person B earns twice of what has been transferred by Person A and makes no decision.

The payoffs are calculated as follows:

Payment for Person A:

100 points minus the amount transferred from Person A to Person B

Payment for Person B:

Two times the amount transferred from Person A to Person B

That is, for every point, Person A transfers to Person B, Person B earns two points. In other words, if Person A wants Person B to earn 20 points, it costs Person A 10 points of the endowment.

Every participant first takes a decision in the role of Person A. Every participant makes the described decision once. At the end of the task, every participant is randomly assigned the role of person A or the role of Person B. The payoff of Person A depends on the decision Person A has taken in the role of Person A. The payoff of Person B depends on the decision of Person A within a matching group, respectively. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

If you are Person A, how much do you transfer to Person B?

0	10	20	30	40	50	60	70	80	90	100

Task 3

In this task, there are again two roles that you can potentially have as a participant: Person A and Person B. Task (2) follows very similar rules as Task (1): Person A makes a decision that determines the payoff for Person A and Person B. Person A receives an endowment of 100 points. Person A can transfer any part of the endowment to Person B. Person A can only choose multiples of 10 [0, 10, 20, 30, ..., 100]. Person B earns twice of what has been transferred by Person A and makes no decision.

The payoffs are calculated as follows:

Payment for Person A:

100 points minus the amount transferred from Person A to Person B

Payment for Person B:

0.5 times the amount transferred from Person A to Person B

That is, for every point, Person A transfers to Person B, Person B earns half a point. In other words, if Person A wants Person B to earn 20 points, it costs Person A 40 points of the endowment.

Every participant first takes a decision in the role of Person A. Every participant makes the described decision once. At the end of the task, every participant is randomly assigned the role of person A or the role of Person B. The payoff of Person A depends on the decision Person A has taken in the role of Person A. The payoff of Person B depends on the decision of Person A within a matching group, respectively. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

If you are Person A, how much do you transfer to Person B?

0	10	20	30	40	50	60	70	80	90	100

Task 4

In this task, there are two roles that you can potentially have as a participant: Person A and Person B. Person A takes a payoff-relevant decision for Person A and Person B, and Person B takes a payoff-relevant decision for Person A and Person B.
Person A receives an endowment of 100 points. Person A can transfer any part of the endowment to Person B. Person A can only choose multiples of 10 [0, 10, 20, 30, . . . , 100]. Person B receives no endowment. After receiving the transfer from Person A, Person B can decide to either accept or reject it. If Person B accepts, the transfer is realized: Person B earns the transferred amount, while Person A earns the rest of the endowment that is not transferred.
The payoffs are calculated as follows:

Payment for Person A:

- If Person B accepts the transfer, 100 points minus the amount transferred from Person A to Person B
- If Person B rejects the transfer, nothing

Payment for Person B:

- If Person B accepts the transfer, the amount transferred from Person A to Person
- If Person B rejects the transfer, nothing

Please note: Every participant first takes a decision in the role of Person A. Then every participant takes a decision in the role of Person B conditional on the possible transfers received. Every participant makes the described decisions once. At the end of the task, every participant is randomly assigned the role of Person A or the role of Person B. After the assignment, exactly half of the participants have the role of Person A. The other half of the participants have the role of Person B. Every Person A is randomly matched with a Person B. The payoff of Person A and Person B depends on the decision Person A has taken in the role of Person A and the corresponding decision Person B has made for the transfer made by Person A within a matching group, respectively. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

If you are Person A, how much do you transfer to Person B?

0	10	20	30	40	50	60	70	80	90	100

If you are Person B, do you accept a transfer of 0 from Person A?

Yes No

If you are Person B, do you accept a transfer of 10 from Person A?

Yes No

If you are Person B, do you accept a transfer of 20 from Person A?

Yes No

If you are Person B, do you accept a transfer of 30 from Person A?

Yes No

If you are Person B, do you accept a transfer of 40 from Person A?

Yes No

If you are Person B, do you accept a transfer of 50 from Person A?

Yes No

If you are Person B, do you accept a transfer of 60 from Person A?

Yes No

If you are Person B, do you accept a transfer of 70 from Person A?

Yes No

If you are Person B, do you accept a transfer of 80 from Person A?

Yes No

If you are Person B, do you accept a transfer of 90 from Person A?

Yes No

If you are Person B, do you accept a transfer of 100 from Person A?

Yes No

Survey

How old are you?
What is your gender?

- Male
- Female

What is the highest degree or level of school you have completed? If currently enrolled, mark the previous grade or highest degree received?

- Less than a high school diploma
- High school degree or equivalent (e.g. GED)
- Some college, no degree
- Associate degree (e.g. AA, AS)
- Bachelor's degree (e.g. BA, BS)
- Master's degree (e.g. MA, MS, MEd)
- Professional degree (e.g. MD, DDS, DVM)
- Doctorate (e.g. PhD, EdD)

What is your highest education degree you seek to accomplish?
If you study, what is your major/area of study?
What is your marital status?

- Single
- Married
- Divorced
- Widowed

Do you have kids? If so, how many?
Do you have siblings? If so, how many?
What is your monthly income in Euro (Egyptian pound)? This includes any salaries, allowances, scholarship-payments etc. you receive.

- Less than 500
- 500 – 1000
- 1000 – 1500

- 1500 – 2000
- 2000 – 2500
- 2500 – 3000
- 3000 – 3500
- 3500 – 4000
- 4000 – 4500
- More than 4500

What is your nationality?
What is your religion?
Do you consider yourself as religious? (0: Not at all, 5: Average, 10: Intensive)

0	1	2	3	4	5	6	7	8	9	10

What describes yourself best? (0: Cautious, 5: Average, 10: Spontaneous)

0	1	2	3	4	5	6	7	8	9	10

How willing or unwilling are you to take risks? (0: Not willing at all, 5: Average, 10: Very Willing)

0	1	2	3	4	5	6	7	8	9	10

Beliefs

Coming back to Task 1

Recall: Person A receives an endowment of 100 points. Person A can transfer an integer amount of the endowment to Person B. Person B receives no endowment, earns what has been transferred by Person A and makes no decision.

Payment for Person A:

100 points minus the amount transferred from Person A to Person B

Payment for Person B:

Amount transferred from Person A to Person B

You have chosen a transfer of (decision Task 1).

What amount do you think the other person you are matched with transfers to you? If you make a correct prediction, you will receive 10 additional points. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

You expect the other to choose:

0	10	20	30	40	50	60	70	80	90	100

What amount do you think the other person expects you to transfer? If you make a correct prediction, you will receive 10 additional points. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

The other expects me to choose:

0	10	20	30	40	50	60	70	80	90	100

Coming back to Task 2

Recall: Person A receives an endowment of 100 points. Person A can transfer an integer amount of the endowment to Person B. Person B receives no endowment, earns what has been transferred by Person A and makes no decision.

Payment for Person A:

100 points minus the amount transferred from Person A to Person B

Payment for Person B:

Two times the amount transferred from person A to person B

You have chosen a transfer of (decision Task 2).

What amount do you think the other person you are matched with transfers to you (please note we are asking about how much the other person transfers to you, not the final payment you will receive)? If you make a correct prediction, you will receive 10 additional points.

Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

You expect the other to choose:

0	10	20	30	40	50	60	70	80	90	100

What amount do you think the other person expects you to transfer? If you make a correct prediction, you will receive 10 additional points. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

The other expects me to choose:

0	10	20	30	40	50	60	70	80	90	100

Coming back to Task 3

Recall: Person A receives an endowment of 100 points. Person A can transfer an integer amount of the endowment to Person B. Person B receives no endowment, earns what has been transferred by Person A and makes no decision.

Payment for Person A:

100 points minus the amount transferred from Person A to Person B

Payment for Person B:

0.5 times the amount transferred from person A to person B

You have chosen a transfer of (decision Task 3).

What amount do you think the other person you are matched with transfers to you (please note we are asking about how much the other person transfers to you, not the final payment you will receive)? If you make a correct prediction, you will receive 10 additional points. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

You expect the other to choose:

0	10	20	30	40	50	60	70	80	90	100

What amount do you think the other person expects you to transfer? If you make a correct prediction, you will receive 10 additional points. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

The other expects me to choose:

0	10	20	30	40	50	60	70	80	90	100

Coming back to Task 4

Recall: Person A receives an endowment of 100 points. Person A can transfer an integer amount to Person B. Person B can decide to either accept or reject it.

Payment for Person A:

- If Person B accepts the transfer, 100 points minus the amount transferred from Person A to Person B
- If Person B rejects the transfer, nothing

Payment for Person B:

- If Person B accepts the transfer, the amount transferred from Person A to Person B
- If Person B rejects the transfer, nothing

You have chosen a transfer of (decision Task 4).

What amount do you think the other person you are matched with transfers to you (please note we are asking about how much the other person transfers to you, not the final payment you will receive)? If you make a correct prediction, you will receive 10 additional points. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

You expect the other to choose:

0	10	20	30	40	50	60	70	80	90	100

What amount do you think the other person expects you to transfer? If you make a correct prediction, you will receive 10 additional points. Remember that in the task you will be matched with a German male (German female/ Egyptian male/Egyptian female).

The other expects me to choose:

0	10	20	30	40	50	60	70	80	90	100