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# Believed gender differences in social preferences

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#### Abstract

While there is a vast (and mixed) literature on gender differences in social preferences, little is known about *believed* gender differences in social preferences. Using data from 15 studies and 8,979 individuals, we find that women are believed to be more generous and more equality-oriented than men. This believed gender gap is robust across a wide range of contexts that vary in terms of strategic considerations, selfish motives, fairness concepts, and payoffs. Yet, this believed gender gap is largely inaccurate. Consistent with models of associative memory, and specifically the role of similarity and interference, the believed gender gap is correlated with recalled prior life experiences from similar contexts and significantly affected by an experience that may interfere with the recall process of prior memories even though this interfering experience should not affect the beliefs of perfect-memory Bayesians. Application studies further reveal that believed gender differences extend to the household (i.e., beliefs about contributions to the home, family, and upbringing of children), the workplace (i.e., beliefs about equal pay) and policy views (i.e., beliefs about redistribution, equal access to education, healthcare, and affordable housing).

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## 1 Introduction

There are persistent gender gaps in labor market outcomes, with women earning less money and having lower representation in leadership positions (Goldin, 2014; Blau and Kahn, 2017). Motivated by these gaps, a rich body of literature investigates gender differences in behavior, providing evidence that women negotiate and ask for less (Babcock and Laschever, 2003; Small et al., 2007; Hernandez-Arenaz and Iriberri, 2019; Recalde and Vesterlund, 2023; Roussille, 2024), compete less (Gneezy, Niederle and Rustichini, 2003; Niederle and Vesterlund, 2007, 2011; Saccardo, Pietrasz and Gneezy, 2018), speak up less (Coffman, 2014), claim less credit (Isaksson, 2018), and self-promote less (Exley and Kessler, 2022).

In addition to gender differences in behavior, *beliefs* about gender differences may contribute to disparate outcomes for men and women.<sup>1</sup> For instance, if women are expected to perform less well than men in certain jobs, women may be less likely to be hired in those jobs. Similarly, if women are expected to be more generous and to care more about equality—that is, to be more "socially-oriented"—they may be chosen less often for certain leadership positions, such as positions that involve distributing unequal pay and rewards.<sup>2</sup> However, unlike the rich and growing literature on believed gender differences in performance (Bohren, Imas and Rosenberg, 2019; Bordalo et al., 2019; Coffman, Collis and Kulkarni, 2023*a*,*b*; Coffman, Exley and Niederle, 2021; Exley and Nielsen, 2024), less is known about believed gender differences in the socially-oriented behavior of men and women.<sup>3</sup> This is despite the fact that beliefs about gender differences in social preferences may also influence decisions such as those relating to which employers they want to work for, which colleagues they want to work with, which politicians they want to vote for, which industries they want to select into given the gender composition of various industries, and which people to praise or scold given their behavior and gender.<sup>4</sup>

The goal of this paper is to provide—across a wide range of contexts—an extensive examination of *believed* gender differences in behavior and attitudes relating to social preferences. While we find little to no evidence for gender differences in behavior or attitudes relating to social preferences, we

<sup>&</sup>lt;sup>1</sup>Indeed, see review articles on gender discrimination such as Riach and Rich (2002), Blau and Kahn (2017) and Bertrand and Duflo (2017).

<sup>&</sup>lt;sup>2</sup>Prior work (see, e.g., Croson and Gneezy (2009)) has also used the "socially-oriented" terminology. For our purposes, we emphasize that by socially-oriented we mean more than prosocial or generous, and in particular, intend to also include more equality-oriented and cooperative behavior.

<sup>&</sup>lt;sup>3</sup>As further evidence of this, a recent review paper about misperceptions of others in the field (Bursztyn and Yang, 2022) highlights prior work on believed gender differences that relate to: (i) female and male leaders' ability, (ii) female and male teachers' ability, (iii) managers' beliefs about females' and males' productivity, and (iv) children's future outcomes depending on gender and caste. While all of this reviewed prior work (see the "Primary beliefs" column of Appendix Table A.1 in Bursztyn and Yang (2022)) broadly relates to believed gender differences in ability, none of it relates to believed gender differences in social preferences. There is also work on believed gender differences in contexts relating to risk (Eckel and Grossman, 2002; Ball, Eckel and Heracleous, 2010) and to labor force participation and affirmative action (Bursztyn et al., 2023).

<sup>&</sup>lt;sup>4</sup>Just as gender differences in social preferences may influence which jobs workers prefer (Daymont and Andrisani, 1984; Grove, Hussey and Jetter, 2011; Burbano, Padilla and Meier, Forthcoming; Abraham and Burbano, 2022), beliefs about gender differences in social preferences may influence whether employers view men or women as better fits.

find robust evidence for the believed gender gap in social preferences.<sup>5</sup> We find—across a series of studies—that women are believed to be more socially-oriented in contexts that vary in numerous dimensions, including the relevance of selfish motives, the extent of strategic considerations, the types of fairness concepts likely involved in the decision, and the size of the payoffs. Focusing on the 3.382 participants in our main economic games studies, we find that, relative to men, women are expected to be more likely to choose socially-oriented outcomes in: (i) a classic dictator game, (ii) a dictator game that introduces a tradeoff between equality and efficiency concerns, (iii) a dictator game that introduces a tradeoff between equality and performance-based entitlement concerns, (iv) an ultimatum game, (v) a trust game, (vi) a prisoner's dilemma, and (vii) a public goods game. The believed gender gap in social preferences even arises in third-party versions of these games. We find that women are expected to give more across a wide range of stakes in a study that asks participants to make decisions about whether to keep money for themselves or instead give to others when giving to others results in the money being multiplied by 0.2, 0.4, 0.6, 0.8, 1, 2, 4, 6, 8, or 10. We find significant evidence for the believed gender gap when examining the beliefs held by men and the beliefs held by women; among four different subject pools (undergraduate students, online participants, online participants with self-reported managerial and hiring experience, and a representative sample); in a study version that asks about broader beliefs (e.g., about the likelihood of men and women favoring "decisions that achieve equality" rather than whether they favor the (5,5) split in a dictator game); in study versions with fewer belief questions; in study versions with belief questions framed in different ways; and in a study version that obscures our focus on gender by eliciting beliefs about groups of individuals who are defined by several demographic characteristics rather than just their gender. This last study indeed reveals that the believed gender gap in social preferences is larger than the believed difference between the youngest and oldest age group, and it is larger than the believed differences in increases from one income bracket to the next income bracket (see Footnote 28).

Prior work points to potential explanations in considering the believed gender gap in social preferences. Given individuals' vast number of experiences pertaining to the extent to which men and women are socially-oriented, one explanation relates to prior work that documents the connection between experiences and beliefs (see, e.g Malmendier and Nagel (2011) and a review in Malmendier (2021b)).<sup>6</sup> In addition, which experiences or memories individuals recall—and thus the connection

<sup>&</sup>lt;sup>5</sup>These inaccurate beliefs may also relate to prior work on stereotypes relating to a "kernel of truth" (Bordalo et al., 2016) that women are more socially-oriented. While we observe little to no evidence for actual gender differences in the contexts we consider, there is evidence in the broader literature for women being more socially-oriented than men in *some* contexts, such as mothers providing more childcare (Aguiar and Hurst, 2007) and women being more left-leaning (Bertrand, 2011). These inaccurate beliefs could also relate to stereotypes that, akin to Eagly and Steffen (1984) and Schwartzstein (2014), may arise from individuals partly neglecting the importance of the context (Ross, 1997).

<sup>&</sup>lt;sup>6</sup>See also Malmendier and Nagel (2016); Schwerter and Zimmermann (2020); Malmendier (2021*a*); Malmendier and Wellsjo (2024); Malmendier and Wachter (2022); Kibris and Uler (2023*a,b*); Nagel and Xu (2022); Malmendier and Shen (2024). See also Schwerter and Zimmermann (2020) for causal evidence on how experiences can shape trust in economic games, and see Conlon et al. (2022) for the differential impact of personal over other's experiences

between beliefs and memory—may prove particularly important as shown in recent work (Bordalo, Gennaioli and Shleifer, 2020; Bordalo et al., 2021, 2023, Forthcoming; Enke, Schwerter and Zimmermann, 2024; Conlon and Patel, 2023; Graeber, Roth and Zimmermann, 2023). For instance, as modeled in Bordalo et al. (Forthcoming), participants may form their beliefs about many of the novel (i.e., likely unfamiliar) contexts we investigate in our studies by making simulations from similar—but not identical—contexts that they encounter outside of our studies.<sup>7</sup>

Motivated by the idea that recalled experiences from similar contexts shape beliefs about new contexts, we recruited 799 participants across two studies to examine whether there are correlations between the believed gender gap in social preferences in our study contexts and similar memories from outside of our studies. The first study reveals that the believed gender gap is larger among participants who name a woman when asked to recall someone they think of as being generous. The second study reveals that the believed gender gap is larger among participants who report having spent more of their childhood with female caretakers and larger among participants who are generous and equality-oriented.

In addition to these findings related to similarity, we investigate whether there is evidence for another defining feature of models of associative memory and belief formation: interference. Interference relates to the idea that, when an individual recalls prior memories to form beliefs, the ability to recall one memory may be hindered by the recall of another memory. Building off of the design in Schwerter and Zimmermann (2020), we thus investigate the impact of an "interfering" experience that, since it relates to the socially-oriented behavior of a man and a woman in similar contexts to the context we ask about in our belief questions, may affect the recall process of participants forming beliefs in our study. Results from a pair of two additional studies with 3,198 participants confirm that an interfering experience causally affects the believed gender gap in social preferences. Notably though, we document this causal impact of an interfering experience even after we provide—and require participants to accurately report back—information on the full distribution of socially-oriented behavior of men and women in similar contexts, implying that the interfering experience should *not* affect the beliefs of perfect-memory Bayesians.

We also recruited 1,600 participants for studies that highlight the potential implications and applications of the believed gender gap in social preferences. First, we show that the believed gender gap in social preferences extends to the household (i.e., women are believed to care more about equal contributions to the home, family, and upbringing of children), the workplace (i.e., women are expected to favor equal pay more often), and policy views (i.e., women are expected to be more supportive of redistribution as well as equal access to education, healthcare, and affordable housing). Second, an incentivized worker-employer experiment reinforces some of these findings:

in influencing beliefs.

<sup>&</sup>lt;sup>7</sup>A common feature of many of these models relates to the role of similarity and memory. For related work on similarity-based learning, see Ilut and Valchev (2023) and Alsan et al. (2024). Also, see Mullainathan (2002) for an earlier study on memory and see Malmendier and Wachter (2022) for a review of the memory literature.

relative to men, female employers are expected to favor equal pay over performance pay more often. Third, the incentivized worker-employer experiment also allows us to document how this belief can influence which employers are favored: workers favor female employers more when equal pay is to their benefit (i.e., when the workers are low performers and would benefit from equal pay rather than performance pay). Fourth, we replicate the believed gender gap in social preferences with a sample of "professional" participants with self-reported management and hiring experience and also show that the professional participants expect labor market implications to follow from the believed gender gap in social preferences. Specifically, professional participants think the believed gender gap in social preferences will be helpful to women in cooperative workplaces but harmful to women in competitive workplaces. These findings add to prior work that often finds positive relationships between socially-oriented behavior and labor market outcomes (see e.g., Dohmen et al. (2009), Sauer (2015) and Deming (2017)), including by highlighting how the context of the workplace likely influences the extent to which the believed gender gap in social preferences helps or harms women.<sup>8</sup>

To conclude, beyond the novel connections between the believed gender gap in social preferences and the aforementioned literature on memory and beliefs, this paper relates to two sets of literature that specifically relate to gender and social preferences. The first set of literature asks whether there are gender differences in behavior that relate to social preferences. Early work raised this important question and found evidence for women being more socially-oriented in dictator games (Eckel and Grossman, 1998) and for women being more equality-oriented in modified dictator games (Andreoni and Vesterlund, 2001; Dickinson and Tiefenthaler, 2002). More recent work adds support to findings in which women give more in classic dictator games (for reviews, see Engel (2011) and Bilén, Dreber and Johannesson (2021) and to findings in which women are more equality-oriented in contexts such as those relating to redistribution (see the review in Bertrand (2011)). However, when considering the results across many contexts, evidence for gender differences in social preferences is mixed: Croson and Gneezy (2009) conclude in their review article that "women are neither more nor less socially oriented, but their social preferences are more malleable." Niederle (2016) similarly concludes that "the message about gender differences in altruism and cooperation is much more mixed than one might have expected."<sup>9</sup> Our results add support to the growing consensus that despite gender differences in socially-oriented behavior arising in some contexts—we do not observe

<sup>&</sup>lt;sup>8</sup>Related, for evidence showing that human resource managers do make inferences about one's prosociality from their resume, see also Heinz and Schumacher (2017).

<sup>&</sup>lt;sup>9</sup>Prior work finds that gender differences in socially-oriented behavior can depend on the cost of giving (Andreoni and Vesterlund, 2001), the type of charity involved (Andreoni, Brown and Rischall, 2003), the age of individuals (List, 2004), the information provided about others (Meier, 2007), the risk involved as noted in the review article by Eckel and Grossman (2008) (see also Gauriot, Heger and Slonim (2020, 2022) for results on the need to carefully and jointly consider both risk and altruism preferences), the ability to avoid being asked to give (DellaVigna et al., 2013), social framing (Ellingsen et al., 2013), whether gender is primed (Boschini et al., 2018), whether the game is a trust game or gift-exchange game (Van Den Akker et al., 2020), whether inequity results from merit or luck (Buser et al., 2020), and the country and the relationship between the givers and recipients (Doñate-Buendía, García-Gallego and Petrović, 2022). More broadly, the relevant gender norms across situations are likely to influence the extent of gender differences (Eagly, 2009; Babcock, Bowles and Bear, 2012).

robust evidence *across* contexts for a gender gap in social preferences.<sup>10</sup>

The second set of literature jointly examines gender differences in social preferences *and* beliefs about gender differences in social preferences. Unlike the first set of literature that focuses on behavior that has been reviewed in survey papers and meta-analyses, this literature is nascent. We are aware of only four papers that directly examine gender differences in behavior relating to social preferences *and* beliefs about gender differences in that behavior.<sup>11</sup> Each of these papers finds that women are expected to be more socially-oriented in a context in which they observe more sociallyoriented behavior, specifically in dictator games (Mayo, 2017; Brañas-Garza, Capraro and Rascon-Ramirez, 2018), a low-promotability volunteer task (Babcock et al., 2017), and a coordination game (Cason, Gangadharan and Grossman, 2022). Demonstrating how this finding generalizes to other contexts, we find that women are expected to be more socially-oriented even in contexts in which women are *not* more socially oriented than men are, in contexts without selfish motives, in contexts with various payoffs and design parameters, in contexts that span a rather extensive set of economic games, in contexts involving different subject pools, and in contexts that pertain to applied domains ranging from the workplace to the household to policy views.

### 2 Overview of Paper

In Section 3, we investigate beliefs about the socially-oriented behavior of men and women. Specifically, we examine whether there exists a believed gender gap in socially-oriented behavior,  $\Delta$ , which we define as follows:

 $\Delta \equiv B(F) - B(M) \equiv \text{believed gender gap in socially-oriented behavior}$  $B(F) \equiv \text{beliefs about the socially-oriented behavior of women}$  $B(M) \equiv \text{beliefs about the socially-oriented behavior of men}$ 

We measure socially-oriented behavior using binary choices between a socially-oriented outcome and a non-socially-oriented outcome in a range of contexts. We measure beliefs as the believed percent of men and women who chose the socially-oriented outcome in a given context.

After observing evidence for a belief that women are more socially-oriented than men are, i.e.,  $\hat{\Delta} > 0$ , we then investigate the potential drivers, applications, and implications of this believed gender gap in socially-oriented behavior in the remaining sections.

<sup>&</sup>lt;sup>10</sup>There is also mixed evidence on gender differences in socially-oriented behavior in developing countries when it comes to spending habits. Some papers find evidence in support of women being more inclined towards sociallyoriented expenditures (Duflo, 2003; Armand et al., 2020), while others have not found a gender effect (Benhassine et al., 2015; Haushofer and Shapiro, 2016).

<sup>&</sup>lt;sup>11</sup>As discussed in Footnote 3, much of the literature on gender differences in behavior and beliefs about gender differences in that behavior has centered on believed gender differences in ability. Prior work related to perceptions about gender differences in social preferences has also focused mostly on beliefs about broader traits rather than eliciting beliefs about specific behavior and observing specific behavior associated with those beliefs (Spence, Helmreich and Stapp, 1975; Eagly and Steffen, 1984; Williams and Best, 1990; Diekman and Eagly, 2000; Fiske et al., 2002; Bandiera et al., 2022). We also differ from this prior work in many of the applications we focus on (e.g., beliefs about equal redistribution) and given findings related to associative memory.

Section 4 examines potential drivers of the believed gender gap in socially-oriented behavior. Motivated by prior literature on the connection between beliefs and experiences—and specifically the connection between beliefs and the recall of those experiences—Section 4 tests whether there is evidence for beliefs being driven by two defining features of memory models: similarity and interference. Following Bordalo et al. (Forthcoming), we assume that participants in our experiments estimate the proportions of men and women who chose the socially-oriented option in a given context by: (i) recalling experiences that are similar to that context and (ii) using these recalled experiences to simulate behavior in that context. This results in the following hypothesis.

Similarity Hypothesis: The believed gender gap in socially-oriented behavior,  $\Delta$ , is increasing in the number of prior experiences with socially-oriented women and decreasing in the number of prior experiences with socially-oriented men.

We further assume that experiences compete for retrieval when participants try to recall them, resulting in the following hypothesis.

Interference Hypothesis: An experience that should not affect the beliefs of perfectmemory Bayesians may affect the believed gender gap in socially-oriented behavior,  $\Delta$ , if it interferes with the recall process of prior memories about the socially-oriented behavior of men and women.

Section 5 investigates the potential applications and implications of the believed gender gap in socially-oriented behavior in relation to the household, the workplace, and policy views.

Section 6 concludes and highlights avenues for future work.

## 3 Documenting the Believed Gender Gap in Social Prefer-

#### ences

To investigate whether there is a believed gender gap in social preferences, we designed a series of Economic Games Studies. Specifically, motivated by prior literature relating to social preferences, the economic games in these studies are based off of classic dictator games (Kahneman, Knetsch and Thaler, 1986; Forsythe et al., 1994; Eckel and Grossman, 1998; Dickinson and Tiefenthaler, 2002), dictator games with efficiency concerns (Andreoni and Vesterlund, 2001; Andreoni and Miller, 2002; Charness and Rabin, 2002), dictator games with entitlement concerns (Cherry, Frykblom and Shogren, 2002; Dickinson and Tiefenthaler, 2002; Almås, Cappelen and Sørensen, 2020; Almås, Cappelen and Tungodden, 2020), ultimatum games (Güth, Schmittberger and Schwarze, 1982; Eckel and Grossman, 2001; Solnick, 2001; Bereby-Meyer and Niederle, 2005; Guth, Schmidt and Sutter, 2007), trust games (Camerer and Weigelt, 1988; Berg, Dickhaut and McCabe, 1995; Croson and Buchan, 1999; Buchan, Croson and Solnick, 2008; Garbarino and Slonim, 2009), prisoner's dilemma games (Dal Bó and Fréchette, 2011, 2018; Capraro, 2018), and public goods games (Marwell and Ames, 1981; Andreoni, 1988). Sections 3.1–3.3 describe the experimental design and results of our main studies, while Section 3.4 overviews the design and results of our robustness studies.

#### 3.1 Experimental Design of the Main Economic Games Studies

This section describes the design for the two Main Economic Games Studies: the Economic Games (Undergraduate Students) Study and the Economic Games (Online Participants) Study. Section 3.1.1 describes 14 scenarios relating to common economic games, Section 3.1.2 describes how beliefs about the decisions made in these 14 scenarios are elicited, Section 3.1.3 describes how decisions in these 14 scenarios are made, and Section 3.1.4 describes the implementation details.

#### 3.1.1 The Scenarios

There are 14 scenarios, and three types of players: Player 1 (P1), Player 2 (P2), and the Neutral Player (NP). In each scenario, the decisions made by a subset of these players determine the points given to P1 and P2 in that scenario. Each scenario is built off of a common experimental game to measure social preferences in which one or two players make a binary decision. We use binary decisions to facilitate belief elicitation.<sup>12</sup> Given the beliefs we later elicit, we refer to the "decision-maker" as P1 in Scenarios 1–7 and as the NP in Scenarios 8–14 (although P2 also makes decisions in some of these scenarios). Appendix Table A.4 shows the points for P1 and P2 that result from the decisions made in each game, which are labeled as Scenarios 1–14.

The decision-maker in each scenario chooses between D1 (the "non-socially-oriented" outcome) and D2 (the "socially-oriented" outcome).<sup>13</sup> This terminology is meant for clarity given the focus of our paper and does not imply that social preferences cannot be relevant in choosing D1. The socially-oriented outcome results when the decision-maker: (i) acts more generously and equality-oriented in "first party scenarios" in which their decisions influence their own payoffs, or (ii) acts more equality-oriented in "third party scenarios" in which their decisions only influence the payoffs of others.<sup>14</sup>

Scenarios 1–7 are "first-party" scenarios because P1 chooses between D1 and D2, which then influences how many points are given to themselves and how many points are given to P2. Specifically, (P1's points, P2's points) are as follows:

• Scenario 1 involves a Dictator Game (DG). While D2 yields (5,5), D1 yields an unequal split of (10,0).

 $<sup>^{12}</sup>$ By restricting to binary decisions, we can elicit participants' beliefs about the percentage of other participants who make one decision in a scenario, and these beliefs then immediately imply their beliefs about the percentage of participants who make the other decision in that scenario.

<sup>&</sup>lt;sup>13</sup>We focus on the decisions made by the main decision-maker since we only elicit beliefs about those decisions. But, in some games, two participants make decisions and we note that P2 is always the non-main decision-maker.

<sup>&</sup>lt;sup>14</sup>In some games, the more equality-oriented outcome is obvious (e.g., in the dictator games). In other games (e.g a prisoner's dilemma game where equal outcomes can result from both participants cooperating or both participants defecting), the more equality-oriented outcome is less obvious. If we define the more equality-oriented outcome as the outcome that either guarantees the equal outcome or makes the payoff-maximizing equal outcome more likely, the more socially-oriented outcome is always the more equality-oriented outcome. In addition, the more socially-oriented behavior aligns with other social preferences—e.g., the outcome in which participants trust more in the trust game, contribute more in the public goods game, and cooperate more in the prisoner's dilemma game.

- Scenario 2 involves a Dictator Game with efficiency concerns (DG-EFF). While D2 yields (5,5), D1 yields an unequal—but more efficient—split of (15,0).
- Scenario 3 involves a Dictator Game with entitlement concerns (DG-ENT). While D2 yields (5,5), D1 yields a higher amount for P1 when P1 is "entitled" to it. Specifically, D1 yields (10,0) when P1 outperforms P2 on a math task (shown in Appendix Figure C.25) but (5,5) otherwise.<sup>15</sup>
- Scenario 4 involves an Ultimatum Game (UG). While D2 yields (5,5), D1 yields the unequal split of (9,1) if it is accepted by P2 but (0,0) if it is rejected by P2.<sup>16</sup>
- Scenario 5 involves a Trust Game (TG). If P1 distrusts P2 by choosing D1, then (10,0) is guaranteed. If P1 trusts P2 by choosing D2, the amount of points is doubled and the distribution of points equals (10,10) if P2 chooses to "reward that trust" or instead (0,20) if P2 chooses to "punish that trust."<sup>17</sup>
- Scenario 6 involves a Prisoner's Dilemma (PD). If P1 defects by choosing D1, then (15,0) results if P2 cooperates, but (5,5) results if P2 also defects. If P1 cooperates by choosing D2, then (10,10) results if P2 also cooperates, but (0,15) results if P2 defects.
- Scenario 7 involves a Public Goods Game (PGG). If P1 does not contribute by choosing D1, then (18,8) results if P2 contributes, but (10,10) results if P2 also does not contribute. If P1 contributes by choosing D2, then (16,16) results if P2 also contributes, but (8,18) results if P2 does not contribute.<sup>18</sup>

We refer to Scenarios 8–14 as the "third-party" scenarios because the NP chooses between D1 and D2, which then influences how many points are given to the two other participants (i.e., to P1 and P2). Relative to the first-party scenarios, the only difference in the third-party scenarios is that the NP—rather than P1—chooses between D1 and D2. Thus, while results from Scenarios 1–7 allow us to explore beliefs about gender differences in social preferences when being socially-oriented can be financially costly (indeed D1 can be classified as the "selfish" choice in all of these scenarios),

<sup>&</sup>lt;sup>15</sup>To narrow in on entitlement concerns—and given the well-documented gender gap in competition (Niederle and Vesterlund, 2011)—note that P1 cannot be made worse off by choosing the entitlement payoff even if they performed "worse" than P2.

<sup>&</sup>lt;sup>16</sup>To ensure P2 only faces a binary decision in this scenario and to ensure P2 receives a higher number of points from a choice of D2, P2 is only given the opportunity to reject or accept the unequal split of (9,1). If P1 chooses D2, the equal split of (5,5) is definitely implemented.

<sup>&</sup>lt;sup>17</sup>Aksoy et al. (2018) finds that the behavior in an incentivized trust game is correlated with a survey measure of trust (when both players are endowed but not when only the first mover is endowed). We find believed gender differences with the incentivized trust game noted here and with broader measures of trust in several of our additional studies, i.e., the Broader Beliefs (Online Participants) Study, the Broader Beliefs (Representative Sample) Study, and the Broader Beliefs (Equality Attitudes) Study.

<sup>&</sup>lt;sup>18</sup>Note that this is equivalent to a PGG where both participants start off with 10 points, they can choose to either contribute their 10 points to the public good or not, the number of points in the public good is multiplied by 1.6, and the number of points in the public good is redistributed equally between P1 and P2.

results from Scenarios 8–14 allow us to consider beliefs about gender differences in social preferences when selfish motives are not relevant.<sup>19</sup>

#### 3.1.2 The Beliefs Part

In the beliefs part of the study, as described in Appendix Table A.5, participants are asked two belief questions in each of the 14 scenarios for a total of 28 beliefs. In each first-party scenario (i.e., Scenarios 1–7), the two belief questions ask participants to predict the percentage of female P1s who choose D1 and the percentage of male P1s who choose D1 in that scenario. In each third-party scenario (i.e., Scenarios 8–14), the two belief questions ask participants to predict the percentage of female NPs who choose D1 and the percentage of male NPs who choose D1 in that scenario. Answers to each belief question are provided with sliders that allow participants to select a range that covers 7 percentage points from 0% to 100%. Beliefs are incentivized for accuracy: participants are allocated £10 or \$2 (when run with undergraduate students and online participants, respectively) if they select a range on the slider that includes the true percentage.<sup>20</sup> On the screen where participants provide beliefs, information about the payoffs that result from D1 and D2 is always presented both quantitatively and qualitatively to facilitate comprehension as well as in a manner that is consistent with how it is presented in the decisions part (e.g., see Appendix Figures C.23 and C.6 for screenshots of how first-party decisions and beliefs about those decisions are elicited).

#### 3.1.3 The Decisions Part

In the decisions part of the study, participants are informed that they will be randomly assigned to a group with two other participants who complete this study and that each member of their group will be randomly assigned to be P1, P2, or the NP. Participants are then asked to make the relevant decisions in each scenario in the event that they are assigned to be P1, P2, or the NP. As described in Appendix Table A.6, this results in 14 decisions that correspond to the beliefs we elicit: seven decisions as P1 in the first-party scenarios (i.e., Scenarios 1–7) and seven decisions as the NP in the third-party scenarios (i.e., Scenarios 8–14). This also results in eight additional decisions as P2 in Scenarios 4–7 and 11–14, although these decisions are not the focus of our analyses since we do not elicit beliefs about them. Decisions are incentivized: each point is equal to £1 or \$0.10 (when run with undergraduate students and online participants, respectively).

#### 3.1.4 Implementation Details

All participants face the exact same set of decisions and belief questions. All that varies is that the order in which they make these decisions and provide these beliefs is randomly determined at

<sup>&</sup>lt;sup>19</sup>D1 can be classified as the selfish choice because of the following: P2 always receives (expected) higher payoffs from D2, but P1 receives (expected) higher payoffs from D1 with only one possible exception (i.e., the expected payoffs from D1 in Scenario 4 could be lower if the rejection rates of D1 are high in the UG).

<sup>&</sup>lt;sup>20</sup>We seek to follow the recommendation in Danz, Vesterlund and Wilson (2022) to provide simple, rather than complex, incentives for accurate beliefs, and indeed, implement their proposal of simply rewarding participants "if the true outcome falls within some bounds around their guess."

the participant level.<sup>21</sup> After completing both the decisions part and the beliefs part, participants answer a short follow-up survey. To determine their payments from the study, one part—either the decisions part or the beliefs part—is randomly selected as the part-that-counts. If the beliefs part is the part-that-counts, participants receive the amount they are allocated in one randomlyselected belief question. If the decisions part is the part-that-counts, participants receive the cash equivalent of the points allocated to them in one randomly-selected scenario.<sup>22</sup> Participants receive detailed instructions—including on the payment procedure—and must correctly answer understanding questions at various points in the study. No participants are excluded from having answered understanding questions incorrectly. Rather, participants are given as many attempts as needed to answer these questions correctly.

We recruited two sets of participants to complete the Economic Games Studies. In the Economic Games (Undergraduate Students) Study, to assess these beliefs among a traditional subject pool, we recruited 382 undergraduate students through the Finance and Economics Experimental Laboratory at the University of Exeter.<sup>23</sup> In the Economic Games (Online Participants) Study, to assess the robustness of these beliefs in a more diverse subject pool, we recruited 400 online participants from Prolific.<sup>24</sup> (See Appendix Table A.1 for full implementation details and Appendices C.1 and C.2 for full instructions).

#### 3.2 Decisions in the Main Economic Games Studies

In this section, we present results on the decisions made by men versus the decisions made by women. Specifically, for each scenario, Table 1 shows how the rate at which the socially-oriented outcome depends on whether the decision-maker is a man or woman. D(F) shows the rate among female decision-makers, D(M) shows the rate among male decision-makers, and  $\Delta$  shows the difference in these rates. Standard errors are shown in parentheses. Each scenario is defined according to the game involved (noted in the column) and whether it involves "first-party decisions" (Panels 1

<sup>&</sup>lt;sup>21</sup>Participants are randomly assigned to complete either the decisions part or the beliefs part first. Within the beliefs part, participants face two blocks (beliefs relating to Scenarios 1–7 or Scenarios 8–14) in a random order, and the scenarios within those blocks are in a random order. Whether the belief question about men always precedes the belief question about women, or vice versa, is randomized at the level of the participant. Within the decisions part, participants face four blocks (pertaining to P1's decisions in Scenarios 1–7, the NP's decisions on behalf of P1 in Scenarios 8–14, P2 interacting with P1 in Scenarios 4–7, and P2 interacting with the NP in Scenarios 11–14) in a random order, and the order of scenarios within those blocks are in a random order.

<sup>&</sup>lt;sup>22</sup>Specifically, if the decisions part is the part-that-counts, recall that participants are randomly assigned to a group with two other participants, and each member of their group is randomly assigned be P1, P2, or the NP. Thus, participants are given the number of points in the randomly-selected scenario that corresponds with (i) whether they are assigned to P1, P2, or the NP, and (ii) the decision made by the participant assigned to be P1 if P1 made a decision in that scenario, the decision made by the participant assigned to be NP if NP made a decision in that scenario, and/or the decision made by the participant assigned to be P2 if P2 made a decision in that scenario.

<sup>&</sup>lt;sup>23</sup>While we sought to only recruit undergraduate students, 13 graduate students completed our study. They are dropped from our analyses, although our results are entirely robust to including them. Also, when examining our decisions data from this study—given our focus on decisions made by men versus women and since we are underpowered to consider more gender diverse groups of students—we exclude one student who neither identified as a man or woman. We include data from this participant, however, when we turn to our beliefs data. We hope future work also investigates more inclusive and diverse measures of gender.

<sup>&</sup>lt;sup>24</sup>For more on Prolific, see Palan and Schitter (2018) and Eyal et al. (2021).

and 2) or "third-party decisions" (Panels 3 and 4). The results are also presented separately for each study population: for the undergraduate students (Panels 1 and 3) and for the online participants (Panels 2 and 4).

Game:	DG	DG-EFF	DG-ENT	UG	TG	PD	PGG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel 1: Undergraduate Students, First-Party Scenarios							
D(F)	0.32	0.16	0.15	0.70	0.25	0.27	0.36
D(M)	0.32	0.13	0.18	0.74	0.24	0.36	0.43
$\Delta$	0.01	0.03	-0.03	-0.04	0.00	-0.09*	-0.07
	(0.05)	(0.04)	(0.04)	(0.05)	(0.04)	(0.05)	(0.05)
Ν	381	381	381	381	381	381	381
Panel 2: Online Participants, First-Party Scenarios							
D(F)	0.60	0.46	0.38	0.76	0.43	0.47	0.56
D(M)	0.46	0.36	0.37	0.77	0.44	0.47	0.52
$\Delta$	$0.14^{***}$	$0.10^{**}$	0.01	-0.01	-0.01	-0.00	0.04
	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)
Ν	396	396	396	396	396	396	396
Panel 3: Undergraduate Students, Third-Party Scenarios							
D(F)	0.74	0.65	0.46	0.83	0.61	0.61	0.57
D(M)	0.72	0.57	0.44	0.87	0.66	0.67	0.73
$\Delta$	0.02	0.08	0.02	-0.05	-0.05	-0.05	-0.16***
	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)
Ν	381	381	381	381	381	381	381
Panel 4: Online Participants, Third-Party Scenarios							
D(F)	0.82	0.72	0.61	0.83	0.74	0.68	0.75
D(M)	0.81	0.71	0.61	0.86	0.69	0.69	0.76
$\Delta$	0.02	0.01	0.01	-0.03	0.05	-0.01	-0.01
	(0.04)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.04)
Ν	396	396	396	396	396	396	396

Table 1: Rate of choosing the socially-oriented outcome in the Economic Games Studies

Notes. D(F) and D(M) show the rates at which female and male decision-makers choose the socially-oriented outcome in a scenario,  $\Delta$  shows the difference in these rates. SEs are shown in parentheses. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–7 correspond to decisions made by female and male decision-makers in the following games (see Table A.4 for more details): the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). Panels 1 and 2 correspond to the decisions made in the first-party versions of the noted game, and Panels 3 and 4 to the third-party versions of the noted game. The data are from the Economic Games Studies run with undergraduate students (excluding one student who did not select male or female as their gender) in Panels 1 and 3 and with online participants (excluding four participants who did not select male or female as their gender) in Panels 2 and 4.

The main result from Table 1 is that—while some gender differences in decisions emerge—there are no robust gender differences in decisions across contexts. For example, consider the results in

Column 1 of Panel 1. When undergraduate students make first-party DG decisions, approximately 32% of men and 32% of women choose the socially-oriented outcome of (5,5), which implies a  $\Delta$  that is nearly 0 (although not exactly 0 due to rounding). More generally, in 24 out of the 28 contexts—defined by the scenario and by the study population—we fail to reject that  $\Delta = 0$ . When considering the 4 times that  $\Delta$  is statistically significant, this evidence never replicates in both of our study populations. At most, gender differences in these decisions are sensitive to both the study population and the payoffs involved.

Despite the limited evidence for gender differences in decisions, the pattern of results in Table 1 shows that decision-makers pay attention to and respond to how incentives vary across the scenarios. Consistent with prior work on how distributional decisions often reflect selfish motives (see, e.g., Konow (2000)), both men and women are less likely to choose the socially-oriented outcome in first-party scenarios (see Panels 1 and 2) than in third-party scenarios in which selfish motives are not relevant (see Panels 3 and 4). In addition, relative to the DG scenarios (see Column 1), the rate of choosing the socially-oriented outcome is lower when choosing the non-socially-oriented outcome aligns with efficiency concerns (in the DG-EFF scenarios, see Column 2), is lower when the non-socially-oriented outcome aligns with entitlement concerns (in the DG-ENT scenarios, see Column 3), and is higher when the non-socially-oriented outcome may be rejected (in the UG scenarios, see Column 4).

#### 3.3 Beliefs in the Main Economic Games Studies

In this section, we present results on the *beliefs about men* versus the *beliefs about women*. For clarity, we emphasize that this is different than beliefs held by men versus beliefs held by women, although we note that Section 3.4.3 shows that our results are robust to the beliefs held by either gender.

Following a similar structure as Table 1, Table 2 presents results on beliefs about male versus female decision-makers. B(F) indicates the average believed percent of female decision-makers who choose the socially-oriented outcome, B(M) indicates the average believed percent of male decision-makers who choose the socially-oriented outcome, and  $\Delta$  shows the difference in these beliefs and whether this difference is statistically significant (when standard errors are clustered at the participant level).

Before considering believed gender differences, we note that—like with the results on decisions shown in Table 1—several patterns in the results in Table 2 are reassuring in terms of participants paying attention to and responding to how incentives vary across the scenarios. Consistent with the role of selfish motives, in *all* contexts, participants believe that men and women are less likely to choose the socially-oriented outcome in first-party scenarios (see Panels 1 and 2) than in thirdparty scenarios (see Panels 3 and 4). In addition, relative to the DG scenarios (see Column 1), participants believe that the percent of decision-makers choosing the socially-oriented outcome is lower when choosing the non-socially-oriented outcome aligns with efficiency concerns (in the DG-EFF scenarios, see Column 2), is lower when the non-socially-oriented outcome aligns with entitlement concerns (in the DG-ENT scenarios, see Column 3), and is higher when the nonsocially-oriented outcome may be rejected (in the UG scenarios, see Column 4).

Turning to our main result of interest, Table 2 reveals clear evidence for the believed gender gap in social preferences: women are expected to choose the socially-oriented outcome more often than men are. The believed gender gap in social preferences arises in *all* contexts: in 28 out of 28 contexts,  $\Delta$  is statistically significantly positive. The believed gender gap in social preferences is also substantial: women are expected to choose the socially-oriented outcome anywhere from 8 to 13 percentage points more often than men are across these 28 contexts. (Footnote 28 further reveals, via an additional study, how the magnitude of the believed gender differences is larger than the believed differences between the youngest and oldest age group and larger than the believed differences in increases from one income bracket to the next income bracket.)

Given that the believed gender gap in social preferences persists across all contexts, what does this specifically imply for believed gender differences? Let us first consider beliefs about first-party scenarios. These results reveal that women are believed to be more likely: (i) to choose an equal split rather than an unequal split that favors themselves in a classic dictator game (see Panels 1 and 2, Column 1), (ii) to choose an equal split rather than an unequal split that favors themselves and is more efficient in a dictator game with efficiency concerns (see Panels 1 and 2, Column 2), (iii) to choose an equal split rather than an unequal split that favors themselves if they outperformed P2 in a dictator game with entitlement concerns (see Panels 1 and 2, Column 3), (iv) to propose an equal split rather than the smallest non-zero amount possible in an ultimatum game (see Panels 1 and 2, Column 4), (v) to trust by sending money to the second-mover in a trust game (see Panels 1 and 2, Column 5), (vi) to cooperate in a prisoner's dilemma game (see Panels 1 and 2, Column 6), and (vii) to contribute in a public goods game (see Panels 1 and 2, Column 7).

While one broad interpretation of the beliefs relating to the first-party scenarios could be that women are expected to be more prosocial or generous, beliefs from the third-party scenarios show that the believed gender gap in social preferences extends beyond believed gender differences in prosocial behavior or generosity. In particular, Panels 3 and 4 in Table 2 show that the believed gender gap in social preferences also arises when considering beliefs about third-party scenarios in *all contexts*. That is, even when men and women make decisions that do not influence their own financial payoffs in third-party scenarios, women are believed to be more likely to choose equal outcomes in dictator and ultimatum games, to trust more by sending more in trust games, to cooperate more in prisoner's dilemma games, and to contribute more in public goods games.

Despite the robustness of the believed gender gap in social preferences across contexts, however, the believed gender gap in social preferences is largely inaccurate. Appendix Table A.19 presents results related to the accuracy of beliefs. While the extent to which women are believed to choose the socially-oriented outcome is sometimes overestimated and other times underestimated (see B(F)- Truth(F)), the extent to which men are believed to choose the socially-oriented outcome is almost always underestimated (see B(M) - Truth(M)). This results in the believed gender gap in social

Game:	DG	DG-EFF	DG-ENT	UG	TG	PD	PGG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel 1: Undergraduate Students, Beliefs about First-Party Scenarios							
B(F)	32.33	28.79	27.91	51.41	31.20	36.27	38.98
B(M)	23.13	20.19	19.48	42.36	23.40	27.24	30.77
$\Delta$	$9.20^{***}$	$8.60^{***}$	$8.43^{***}$	$9.04^{***}$	$7.80^{***}$	$9.03^{***}$	$8.21^{***}$
	(0.73)	(0.66)	(0.62)	(0.71)	(0.69)	(0.61)	(0.71)
Ν	764	764	764	764	764	764	764
Panel 2: Online Participants, Beliefs about First-Party Scenarios							
B(F)	43.42	40.66	38.49	53.49	44.02	45.45	46.27
B(M)	30.43	27.82	27.52	42.14	32.26	32.58	35.25
$\Delta$	$12.98^{***}$	$12.84^{***}$	$10.97^{***}$	$11.35^{***}$	$11.77^{***}$	$12.87^{***}$	11.02***
	(0.96)	(0.93)	(0.93)	(0.94)	(1.00)	(0.95)	(0.95)
Ν	800	800	800	800	800	800	800
Panel 3: Undergraduate Students, Beliefs about Third-Party Scenarios							
B(F)	52.63	46.71	39.45	59.25	45.99	50.48	52.07
B(M)	43.21	37.64	30.95	49.95	36.85	41.21	43.53
$\Delta$	9.41***	$9.07^{***}$	8.49***	9.30***	$9.14^{***}$	$9.26^{***}$	$8.54^{***}$
	(0.81)	(0.87)	(0.71)	(0.72)	(0.76)	(0.74)	(0.71)
Ν	764	764	764	764	764	764	764
Panel 4: Online Participants, Beliefs about Third-Party Scenarios							
B(F)	54.10	50.04	44.18	55.55	51.56	50.22	51.25
B(M)	41.71	38.11	34.17	45.69	40.42	40.48	41.29
$\Delta$	$12.39^{***}$	$11.93^{***}$	$10.01^{***}$	$9.87^{***}$	$11.14^{***}$	$9.74^{***}$	$9.96^{***}$
	(1.00)	(0.96)	(0.92)	(0.93)	(1.05)	(0.93)	(0.91)
Ν	800	800	800	800	800	800	800

Table 2: Beliefs about the percent of decision-makers choosing the socially-oriented outcome in the Economic Games Studies

Notes. B(F) and B(M) show the average believed percent of female and male decision-makers who choose the socially-oriented outcome in a scenario,  $\Delta$  shows the difference in these percentages. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–7 correspond to beliefs about decisions made by female and male decision-makers in the following games (see Table A.4 for more details): the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). Panels 1 and 2 correspond to the beliefs about decisions made in the first-party versions of the noted game, and Panels 3 and 4 to the third-party versions of the noted game. The data are from the Economic Games Studies run with undergraduate students in Panels 1 and 3 and with online participants in Panels 2 and 4.

preferences being significantly overestimated in 26 out of the 28 contexts (see  $\Delta$ )

To summarize, across contexts, we observe a robust believed gender gap in social preferences. Women are believed to choose the socially-oriented outcome more often when selfish motives are and are not relevant (i.e., in first-party and third-party scenarios), when strategic considerations are and are not relevant (e.g., in the DG and UG scenarios), and when various fairness concepts are relevant (e.g., across the DG, DG-EFF and DG-ENT scenarios). But, across contexts, there are little to no gender differences in these decisions.

# 3.4 Additional Results in Main Economic Games Studies and in Robustness Studies

After we present additional results from our main studies in Sections 3.4.1 - 3.4.5, we present results from "robustness studies": the Economic Games (Beliefs Only) Study in Sections 3.4.6 and 3.4.7, the Economic Games (Additional Demographics) Study in Section 3.4.8, the Economic Games (Stakes Vary) Study in Section 3.4.9, the Broader Beliefs (Online Participants) Study in Section 3.4.10, and the Broader Beliefs (Representative Sample) Study in Section 3.4.11. Appendix Table A.1 provides an overview of these robustness studies—including references to the full experimental instructions, implementation details that relate to randomization of questions and payment, and tables that explicitly detail the main questions.

#### 3.4.1 Does the believed gender gap persist across several robustness checks?

To facilitate several robustness checks, Appendix Table A.17 presents results on the average believed difference when pooling across all first-party scenarios in Panels 1 and 2 and when pooling across all third-party scenarios in Panels 3 and 4. The believed gender gap in social preferences is robust to: including scenario fixed effects and clustering standard errors at the participant level (Column 1), controlling for demographics (Column 2), restricting to the 95% of undergraduate students or 99% of online participants who pass an unincentivized attention check at the end of the survey (Column 3)<sup>25</sup>, the order in which the belief versus decision part occurs (see Columns 4 and 5), and whether we restrict to beliefs that are elicited relatively earlier or later in the study (see Columns 6 and 7).

The believed gender gap in social preferences is also robust to considering the full distribution of beliefs. Figure 1 shows the distributions of: beliefs about first-party scenarios provided by undergraduate students (see Figure 1a), beliefs about first-party scenarios provided by online participants (see Figure 1b), beliefs about third-party scenarios provided by undergraduate students (see Figure 1c), and beliefs about third-party scenarios provided by online participants (see Figure 1d). In each panel, the distribution of the beliefs about female decision-makers first-order stochastically dominates the distribution of beliefs about male decision-makers and these distributions are statistically different (Kolmogorov-Smirnov test, p < 0.01). Appendix Figures B.1, B.2, B.3 and B.4 further show that similar results follow when comparing these distributions in each of the 28 contexts (for each comparison: Kolmogorov-Smirnov test, p < 0.01).

<sup>&</sup>lt;sup>25</sup>In our follow-up survey, participants are asked to select the option on the left that corresponds with "strongly disagree" in one question and the option on the right that corresponds with "strongly agree" in another question. They only pass our attention check if they correctly answer both of these questions. When completing our follow-up survey, participants know that their answers cannot influence their payments from the study in any way. The high rate of passing this attention check that is unincentivized and asked when participants may be most fatigued at the end of the study is also reassuring.

Figure 1: Distributions of incentivized beliefs when pooling across all games

(a) Undergraduate Students: First-Party Scenarios (b) Online Participants: First-Party Scenarios



(c) Undergraduate Students: Third-Party Scenarios (d) Online Participants: Third-Party Scenarios



*Notes.* Graphs show CDFs for the believed percent of male and female decision-makers who choose the sociallyoriented outcome (denoted by B(M) and B(F), respectively). The graphs show the beliefs across all games (see Table A.4 for more details): the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). Panels (a) and (b) correspond to the beliefs about decisions made in the first-party versions of the noted game, and Panels (c) and (d) to the third-party versions of the noted game. The data are from the Economic Games Studies run with undergraduate students in Panels (a) and (c) and with online participants in Panels (b) and (d).

#### 3.4.2 Is the believed gender gap evident with participant-level data?

One may wonder whether the believed gender gap in social preferences extends beyond *average* differences in beliefs. The answer is yes. Appendix Table A.18 collapses participants' belief data to determine whether, in each context, a participant believes (i) women are more likely to be socially-oriented, (ii) men are more likely to be socially-oriented, or (iii) men and women are equally likely to be socially-oriented. These results reveal strong evidence for the believed gender gap in social preferences. For instance, undergraduate students believe that women are more likely than men to choose the socially-oriented outcome in first-party scenarios 73% of the time, believe the opposite 11% of the time, and believe there is no gender difference 16% of the time.

In addition, as shown in Appendix Figure B.5, the distribution of the number of times each participant believes female decision-makers are more socially-oriented is skewed towards the right. While the modal participant believes female decision-makers are more socially-oriented in all 14 contexts, almost no participants believe the opposite.

#### 3.4.3 Is the believed gender gap held by men and women?

As shown in Appendix Tables A.26–A.29, the believed gender gap is statistically significant for both women (see Column 1) and men (see Column 2). That said, the gender gap in social preferences is larger among women than men, significantly so among the undergraduate students and directionally so among the online participants (see Column 3). That both men and women expect gender differences in social preferences adds to prior work that shows how both men and women expect gender differences in performance outcomes (Bordalo et al., 2019; Card et al., 2020; Exley and Nielsen, 2024), and that the believed gender gap in social preferences is, if anything, larger among women also adds to prior work on in-group beliefs (Tajfel et al., 1979; Chen and Li, 2009; Chen and Chen, 2011; Ioannou, Qi and Rustichini, 2016; Carlsson and Eriksson, 2019; Coffman, Exley and Niederle, 2021).

#### 3.4.4 Does the believed gender gap differ by own behavior?

As shown in Column 4 and 5 of Appendix Tables A.26–A.29, the believed gender gap is statistically significant both when participants make non-socially-oriented decisions (see the coefficient estimates on  $\Delta$ ) and when participants make socially-oriented decisions (see the sum of the coefficient estimates on  $\Delta$  and  $\Delta$ \*Socially-Oriented). If anything, the believed gap is larger when participants make socially-oriented decisions—particularly among female participants (and hence why we present the results separately for men and women in Columns 4 and 5). In addition, as one may expect, participants making more socially-oriented decisions in a context are more likely to believe that others will make socially-oriented decisions in that context too (see the coefficient estimates on Socially-Oriented).

#### 3.4.5 Is the believed gender gap more likely among certain "types" of individuals?

The prior subsections show how beliefs vary by gender and own behavior. To further investigate if there are certain types of individuals who are more inclined to exhibit the believed gender gap in social preferences across the contexts in our study, we also elicited participants' "broader beliefs" in our follow-up surveys.

In the study with undergraduate students, the follow-up survey asked participants to select either men or women in response to three questions on who, in general, they think is (i) nicer, (ii) more selfish, and (iii) fairer. In Appendix Tables A.26 and A.27, the believed gender gap in social preferences among undergraduate students is significantly larger among: (i) the 90% of participants who indicate that women are nicer in general (see Column 6), (ii) the 88% of participants who indicate that men are more selfish in general (see Column 7), and (iii) the 84% of participants who indicate that women are fairer in general (see Column 8).

In the study with online participants, the follow-up survey asked participants to indicate the extent to which—on a 0 (completely unwilling) to 10 (completely willing) scale—they think women and men are willing to be (i) altruistic, (ii) charitable, and (iii) fair. These questions built off of Falk et al. (2023).<sup>26</sup> Appendix Tables A.28 and A.29 add in a variable that captures the believed differences in willingness between women and men and an interaction of that variable with the believed gender gap. These results show that the believed gender gap in social preferences among online participants is significantly larger among participants who believe women are relatively more willing: (i) to be altruistic (see Column 6), (ii) to be charitable (see Column 7), and (iii) to be fair (see Column 8).<sup>27</sup>

#### 3.4.6 Does the believed gender gap persist when only asked to provide beliefs?

As discussed in Section 3.4.1, our main study results are robust to restricting to the set of beliefs that are elicited before decisions are made, which may help to mitigate potential consistency motives. To further investigate if our results persist when we only ask participants to provide beliefs, we recruited 399 online participants to complete the Economic Games (Beliefs Only) Study. In this study, participants are asked the exact same set of belief questions as in the main studies (see Appendix Table A.5), but they are not asked to make any decisions. In addition, each page only elicits the beliefs about men or the beliefs about women. As shown in Appendix Table A.25, the believed gender gap in social preferences is statistically significant in 14 out of the 14 contexts.

#### 3.4.7 Does the believed gender gap persist when we ask fewer belief questions?

As discussed in Section 3.4.1, our main study results are robust to examining beliefs that are elicited earlier and later in the study, which helps to mitigate order effect or subject-fatigue related

 $<sup>^{26}</sup>$ We changed to these more continuous measures of broader beliefs because of the little variation in beliefs among the binary follow-up questions among undergraduate students and to document the robustness to other ways in which to elicit broader beliefs. All three questions build off of the "in general" and 11-point scale structure in Falk et al. (2023), and the charitable question builds off of that paper directly (see footnotes of Appendix Tables A.28 and A.29 for exact wording). We also asked three more follow-up questions (and find the same significant patterns of results with these questions too) about whether participants believe women are more relatively willing: (iv) to be cooperative, (v) to be trustworthy, and (vi) to indicate that luck that creates inequity is unfair. For (vi), we build off of prior papers such as Cappelen et al. (2022).

 $<sup>^{27}</sup>$ On a scale of 0 to 10, women are believed to be on average 1.64 more altruistic, 2.14 more charitable, and 1.46 fairer.

concerns. That we replicate the believed gender gap in social preferences when we only elicit beliefs in the Economic Games (Beliefs Only) Study, as just discussed in Section 3.4.6, further addresses these concerns. In addition, we replicate the gender gap in social preferences in *four* additional studies that only ask participants to provide two beliefs (one about women and one about men) about one economic game (see Section 4).

#### 3.4.8 Does the believed gender gap persist if we obscure our focus on gender?

To investigate whether the believed gender gap in social preferences persists when we obscure our focus on gender, we recruited 400 online participants to complete the Economic Games (Additional Demographics) Study. While the main Economic Games studies elicits beliefs about groups that are only defined by gender, the Economic Games (Additional Demographics) Study elicits 40 beliefs about the decisions made by 40 groups that are defined by their gender, age, and income. Specifically, each of the 40 belief questions: (i) asks about decisions made in the first-party dictator game, (ii) is shown on a separate page and, (iii) as detailed in Appendix Table A.7, includes three pieces of information about participants in the group: their gender (women, men), income (less than \$25,000; between \$25,000 - \$49,999; between \$50,000 - \$74,999; between \$75,000 - \$99,999; \$100,000 or above), and age (aged 18-24, aged 25-34, aged 35-44, aged 45 or over).

Appendix Table A.20 shows that the believed gender gap in social preferences is statistically significant without any fixed effects (Column 1) and when including fixed effects for each age and income group (Column 2). These results also reveal that the 8.17 percentage point believed gender gap is sizeable relative to believed other changes. It is larger than the believed difference between the youngest and oldest age group, and it is larger than the believed differences in increases from one income bracket to the next income bracket.<sup>28</sup> In addition, by collapsing groups in a way that allows us to compare men and women who fall within the same age-income subgroup, Appendix Table A.21, shows that the believed gender gap in social preferences is statistically significant for each of the 20 age-income subgroups.

#### 3.4.9 Does the believed gender gap persist across various stakes?

Results from our main studies show the believed gender gap in social preference persists across various stakes (e.g., compare the stakes in the DG to those in the PGG and the stakes for the decision-maker in the first-party versus third-party scenarios). One may further wonder if the believed gender gap in social preferences persists when we hold constant the payoff structure and only vary the payoff parameters. To investigate this, we vary the payoff parameters in a manner similar to many altruism studies by recruiting 400 online participants to complete the Economic

<sup>&</sup>lt;sup>28</sup>As shown in Column 2 of Appendix Table A.20, the believed gender gap is 8.17 percentage points. This is larger than the believed gaps by age or by movements in one income bracket. Specifically, the believed gap is 1.64 percentage points when going from the youngest to the oldest age group. Also the believed gap is (i) 5.78 percentage points when going from the income bracket of <\$25,000 to the income bracket of \$25,000 to \$49,999, (ii) 7.25 percentage points when going from the income bracket of \$25,000 to \$49,999 to the income bracket of \$50,000 to \$74,999, (iii) 2.06 percentage points when going from the income bracket of \$50,000 to \$74,999 to the income bracket of \$75,000 to \$99,999, and (iv) 3.36 when going from the income bracket of \$75,000 to \$99,999 to the income bracket of  $\geq$ \$100,000.

Games (Stakes Vary) Study. Specifically, as shown in Appendix Table A.8, this study involves 10 scenarios in which the decision-maker chooses to either keep 10 for themselves or to instead give 2, 4, 6, 8, 10, 20, 40, 60, 80, or 100 to their "partner," or equivalently, scenarios in which the decision-maker chooses whether to give when the donation multiplier is 0.2, 0.4, 0.6, 0.8, 1, 2, 4, 6, 8, or 10. Each participant in this study makes decisions in all 10 scenarios and provides beliefs about how often men and women give in each of these scenarios.

As shown in Appendix Table A.22, there is little to no evidence for gender differences in giving decisions. While the giving rates clearly respond to the payoff amounts—e.g., participants give approximately one-fifth of the time when choosing between 10 for themselves and 2 for others but give more than half of the time when choosing between 10 for themselves and 100 for others—there are no significant gender differences in giving rates in 8 out of the 10 scenarios. The two scenarios with (marginally) statistically significant gender differences also suggest opposite gender effects with men giving more in one case and women giving more in the other.

Nonetheless, as shown in Appendix Table A.23, the believed gender gap is statistically significant in 10 out of the 10 scenarios. Regardless as to whether the benefits of being socially-oriented are very low or very high, participants always expect women to give more than men.

# 3.4.10 Does the believed gender gap persist with simpler questions and in relation to broader contexts?

Our main studies ask participants about economic games with binary outcomes. This structure is useful for eliciting beliefs since it allows us to incentivize participants to accurately predict the percent of men and women who choose the socially-oriented outcome over the non-socially-oriented outcome. One may wonder, however, if our results extend to contexts that are not binary in nature, and perhaps even more so, to broader contexts that motivate the classic economic games. In addition, one may wonder if our results arise when we ask simpler questions that are possible when not tying the beliefs to specific economic games. To investigate this, we recruited 400 online participants to provide "broader beliefs" by completing the Broader Beliefs (Online Participants) Study.<sup>29</sup> As shown in Appendix Table A.9, participants are asked about 14 scenarios that broadly correspond with the 14 scenarios in our main study; for example, they are asked questions about whether men and women favor "decisions that achieve equality" rather than whether men and women choose (5,5) over (10, 0) in a dictator game.<sup>30</sup>

As shown in Panels 1 and 3 of Appendix Table A.24, the believed gender gap in preferences is statistically significant in all 14 of the 14 broader contexts. See also the results detailed later in Section 5 that show the believed gap persists in a wide range of applied contexts that relate to the

<sup>&</sup>lt;sup>29</sup>For other work that elicits broader beliefs relating to social preferences, and indeed finds evidence for believed gender differences, see Andreoni and Petrie (2008) and Slonim and Guillen (2010).

 $<sup>^{30}</sup>$ The scenarios are written such that the belief questions asked in the Broader Beliefs Study Scenarios 1–14 loosely capture the key features of the games involved in the Economic Games Studies Scenarios 1–14. We refer to Scenarios 1–7 as "first-party" scenarios and Scenarios 8–14 as "third-party" scenarios. All contextual information about a scenario is detailed in the text of each belief question. Answers are not incentivized, but participants are asked to answer the questions carefully and honestly.

household, the workplace and various other policy-relevant scenarios.

#### 3.4.11 Does the believed gender gap persist with a representative sample?

The results from our main studies confirm that the believed gender gap in social preferences arises among a traditional sample of undergraduate students as well as online participants. To investigate if our results also persist with a representative sample, following Snowberg and Yariv (2021), we partnered with Dynata to form a nationally representative sample (in terms of age, gender, and income) and recruited 1,001 participants to complete the Broader Beliefs (Representative Sample) Study.<sup>31</sup> The design for this study follows the design for the Broader Beliefs (Online Participants) Study, so again see Appendix Table A.9 for the list of the belief questions.

As shown in Panels 2 and 4 of Appendix Table A.24, the believed gender gap in preferences is statistically significant in all 14 of the 14 contexts. As later shown in Section 5.4, our results also persist among "professional participants" with self-reported hiring and management experience.

# 4 The Believed Gender Gap in Social Preferences and Connections with the Associative Memory Literature

Given the robustness of the believed gender gap in social preferences—as well as the potential implications of this believed gender gap (further discussed in Sections 5 and 6)—it is important to understand what factors contribute to these beliefs. Motivated by prior literature on beliefs and memory, particularly since individuals likely have many prior memories related to the extent to which men and women are socially-oriented, this section presents a series of results across four studies.

Motivated by the possibility that, as modeled in Bordalo et al. (Forthcoming), individuals may form beliefs about the novel contexts in our study by making simulations from prior similar memories, the first two studies examine evidence related to the *similarity hypothesis* (see Section 2). Evidence from the Recalled Person Study (see Section 4.1) reveals a correlation between the believed gender gap in social preferences and whether participants name a woman when asked to recall someone who they think of as generous. Evidence from the Recalled Experience Study (see Section 4.2) further reveals that the believed gender gap in social preferences is correlated with (i) participants having spent more of their childhood with female caretakers, (ii) participants reporting that they having experienced, over the course of their life, relatively more women who are generous, and (iii) participants reporting that they have experienced, over the course of their life, relatively more women who are equality-oriented.<sup>32</sup>

<sup>&</sup>lt;sup>31</sup>Our approach follows Snowberg and Yariv (2021): they recruited a representative sample of N = 1,000 U.S. survey respondents via Dynata (previously named Survey Sampling International before merging with Research Now) who are representative of the U.S. population across age, gender and income. For details on this procedure and a table showing that our sample in the Broader Beliefs (Representative Sample) Study is nationally representative along gender, age and income, see Appendix Table A.42. For work on how differences may arise across subjects pools, see also Aksoy et al. (2024).

 $<sup>^{32}</sup>$ For other work related to prior experiences shaping beliefs relating to trust and other notions of morality—

Motivated by another feature of models of associative memory and belief formation, the last two studies in this section relate to the *interference hypothesis* (see Section 2). Specifically, to investigate the impact of an "interfering" experience—that shares some similarities with the belief questions we ask participants but could dampen the recall of prior memories—we ran the Interfering Experience Study as well as the Interfering Experience (Robustness) Study (see Section 4.3). Both of these studies reveal that an interfering experience causally affects the believed gender gap in social preferences, even though the interfering experience should *not* affect the beliefs of perfect-memory Bayesians.

Appendix Table A.2 provides an overview of these four studies, including references to the full experimental instructions and implementation details.

#### 4.1 The Recalled Person Study

We recruited 399 online participants to complete the Recalled Person Study. In this study, we only ask participants to provide two beliefs: one belief about how likely men are to give in the first-party version of the dictator game and one belief about how likely women are to give in the first-party version of the dictator game. Then, in the follow-up survey, we ask participants to recall a person who they personally know and think of as being "likely to give to others."

Table A.30 presents results on the believed gender gap in social preferences, and specifically the believed gender gap in dictator game giving. While Columns 1 and 2 reveal that the believed gender gap in giving arises both among participants who do and do not recall a woman when asked to recall someone who is likely to give (it is 10.45 and 16.08 percentage points, respectively), Column 3 confirms that believed gender gap in giving is significantly larger among participants who recall a woman by 5.62 percentage points or by more than 50%.

Follow-up survey questions are also consistent with a connection between associative memory and the believed gender gap in giving; 83% of participants who recall a *woman* said the recalled person or others like the recalled person influenced their beliefs about the believed gender gap in giving but only 45% of participants who recall a *man* said similarly. In addition, 81% of participants report that experiences in contexts that are broadly similar to the novel study context influenced their beliefs about the relevant types of recalled memories, we note that the most commonly recalled person was a participant's mother (occurring 23% of the time for the 66% of participants who recall a woman).<sup>34</sup>

although not related to believed gender differences—see Schwerter and Zimmermann (2020) and Mastroianni and Gilbert (2023), respectively. For the importance of early childhood experiences on memory, see Wachter and Kahana (2023).

<sup>&</sup>lt;sup>33</sup>Meanwhile, in another question, 43% of participants report that experiences in contexts that are *very similar* or *identical* to the dictator game have influenced their beliefs about gender differences in the dictator game.

 $<sup>^{34}</sup>$ On the first page of the follow-up survey (see Appendix Figure C.93), we ask this question by eliciting a free response to ensure participants' answers are not primed. On the second page of the follow-up survey (see Appendix Figure C.94), we ask participants to select from a list of alternatives of how that person is related to them. We then confirm that participant's answers across these pages are consistent, or in the case of inconsistencies, correct their

#### 4.2 The Recalled Experience Study

We recruited 400 online participants to complete the Recalled Experience Study. In this study, we only ask participants to provide two beliefs: one belief about how likely men are to give in the first-party version of the dictator game and one belief about how likely women are to give in the first-party version of the dictator game. Then, in the follow-up survey, we ask participants about their recalled life experiences that relate to how socially-oriented men and women are. Motivated by our prior finding of the modal recall being one's mother and the socially-oriented nature of caretaking, we also ask about life experiences that are specific to childhood caretaking experiences.

Appendix Table A.31 presents results on the believed gender gap in social preferences according to whether participants report having spent more time growing up with male caretakers (Column 1), approximately an equal amount of time with male and female caretakers (Column 2), or more time with female caretakers (Column 3). Despite the notably small sample size when restricting to the set of participants who spent more time growing up with male caretakers, the believed gender gap in giving persists across all of these three groups. That said, as is evident in Column 4, the believed gender gap is significantly larger among individuals who report having spent more time growing up with female caretakers.<sup>35</sup>

Appendix Table A.32 presents results on the believed gender gap in social preferences according to questions—built off of those in Bordalo et al. (Forthcoming)—about participants' experiences over the course of their life. These results, like Bordalo et al. (Forthcoming), reveal a strong correlation between prior similar lifetime experiences and beliefs. Specifically, the believed gender gap in giving is larger among participants who report having experienced: (i) women being more generous than men over the course of their life (see Panel 1) and (ii) women caring more about equality than men over the course their life (see Panel 2).

#### 4.3 The Interfering Experience Studies

To investigate the causal impact of an "interfering" experience that may affect the recall process of participants forming beliefs in our study, we recruited 1,600 online participants for the Interfering Experience Study and 1,598 online participants for the Interfering Experience (Robustness) Study. These studies build off of the experimental paradigm in Schwerter and Zimmermann (2020) and involve four conditions that are summarized in Appendix Table A.10: (i) the *Baseline* condition, (ii) the *Information Only* condition, (iii) the *Information* + *Interfering Experience of a Socially-Oriented Man* condition, and (iv) the *Information* + *Interfering Experience of a Socially-Oriented Woman* condition. Below, we first describe the design and results for the Interfering Experience

reported relationship. Nearly all inconsistencies arose from participants selecting how they were related to person of interest rather than selecting how the person of interest is related to them (e.g., a daughter may have selected "daughter" instead of "mother").

<sup>&</sup>lt;sup>35</sup>Similar results follow when we instead rely on questions about whether participants recall that women were expected to act in ways consistent with the believed gender gap in social preferences, specifically by doing more childcare, household chores or being more nurturing and caring.

Study and then examine the robustness of these results in the Interfering Experience (Robustness) Study.

In all conditions, belief questions ask participants about how likely prior male and female decision-makers in the Economic Games (Undergraduate Students) Study are to choose the socially-oriented outcome in the first-party dictator game (DG). In each belief question, as in our prior studies, participants earn an allocation depending on the accuracy of their answer and provide answers via sliders. In the three conditions with information, participants are provided with information on the socially-oriented behavior of these same participants. However, rather than pertaining to the socially-oriented behavior of participants in the context that we ask participants about in our belief questions (i.e., the DG), the information conveys the full distribution of socially-oriented behavior for male and female decisions-makers in two *similar contexts*: in the first-party dictator game with entitlement concerns (DG-EFF) and in the ultimatum game (UG). In the two conditions with an interfering experience, participants are allocated money according to decisions made in the *similar contexts* by one of their partners who are also from this prior study. The interfering experience always follows participants receiving the information on the full distribution of behavior in the similar contexts, implying that the interfering experience should *not* affect the beliefs of perfect-memory Bayesians.

More specifically, in the *Baseline* condition, participants read a summary of the prior study and then answer the two belief questions about how likely men and women are to choose the socially-oriented option in the DG.

The Information Only condition proceeds in the same manner as the Baseline condition except that—prior to providing their beliefs in the DG—participants receive accurate information about the full distribution of socially-oriented behavior of men and women in the similar contexts, i.e., in the DG-EFF and UG. This distributional information accurately conveys that (i) 13% of men and 16% of women choose the socially-oriented outcome in the DG-EFF and (ii) 74% of men of and 70% of women choose the socially-oriented outcome in the UG. To ensure attentiveness to this distributional information, participants are required to correctly report back each of these four percentages. We also note that this distributional information—with women only being slightly more socially-oriented in the DG-EFF and men only being slightly more socially-oriented in the DG-EFF and men only being slightly more socially-oriented in the DG-EFF and men only being slightly more socially-oriented in the DG-EFF and men only being slightly more socially-oriented in the box of little to no robust gender differences in socially-oriented behavior.

The Information + Interfering Experience of a Socially-Oriented Man and Information + Interfering Experience of a Socially-Oriented Woman conditions proceed in the same manner as the Information Only condition except that—after receiving the accurate information about the full distribution of behavior of men and women in the UG and DG-EFF—participants encounter an experience that may interfere with their recall process when answering the subsequent belief questions about the DG.

Specifically, during the "interfering experience", participants are (i) matched with two partici-

pants from the prior study (a "female partner" and a "male partner"), (ii) allocated the amount of money their female partner previously allocated to Player 2 in the DG-EFF or the UG *and* the amount of money their male partner previously allocated to Player 2 in the UG or the DG-EFF, and (iii) asked how they feel (i.e., "unhappy", "neutral" or "happy") about their allocations from their male partner and female partner.<sup>36</sup>

In the Information + Interfering Experience of a Socially-Oriented Man condition, the interfering experience involves allocations from a socially-oriented male partner and a non-socially-oriented female partner in the similar contexts. In the Information + Interfering Experience of a Socially-Oriented Woman condition, the interfering experience involves allocations from a socially-oriented female partner and a non-socially-oriented male partner in the similar contexts. By always focusing on interfering experiences with one socially-oriented partner and one non-socially-oriented partner, we hold constant the allocation amount that results from the interfering experience.<sup>37</sup> By always focusing on interfering experiences pertaining to the similar contexts—even after participants are provided with the full distributional information about men and women in the similar contexts we are further able to examine the impact of an interfering experience even when the interfering experience should not affect the beliefs of perfect-memory Bayesians because it conveys no new information about the similar contexts.

Following a similar structure as Table 2, Table 3 presents results on beliefs—across the four conditions—about how socially-oriented men and women are in the DG. Replicating prior results that show how women are believed to be more socially-oriented in the dictator game, Column 1 reveals that the believed gender gap in the DG is 11.87 percentage points in the *Baseline* condition. Column 2 shows that the believed gender gap in the DG remains but is substantially smaller—equal to 3.69 percentage points—when participants in the *Information Only* condition accurately learn that there are little to no differences in the similar contexts (i.e., in the DG-EFF and in the UG). This reduction in the magnitude of the believed gender gap is indeed statistically significant (p < 0.01).

That participants are less likely to expect a gender gap in the DG—after they are provided with the distributional information conveying that there are little to no gender gaps in the similar

<sup>&</sup>lt;sup>36</sup>When the socially-oriented and non-socially-oriented options in each of these games is described to participants, we simply inform participants of the corresponding dollar payoffs—rather than introducing the concepts of points. See Appendix Table A.4 for a reminder as to the payoffs involved in the socially-oriented versus non-socially-oriented decisions in these games. We note that each point corresponded to £1 for the U.K. undergraduate students involved in the Economic Games (Undergraduate Students) Study. Using the conversion rate of approximately £1 = \$1.20, the corresponding dollar payoffs for (Player 1, Player 2) from choosing the socially-oriented outcome vs. the non-socially-oriented outcome are as follows: (i) (\$6, \$6) vs. (\$12, \$0) in the DG, (ii) (\$6, \$6) vs. (\$18, \$0) in the DG-EFF, and (iii) (\$6, \$6) vs. (\$10.80, \$1.20) or (\$0, \$0) depending on whether Player 2 accepts or rejects this choice in the UG, respectively.

<sup>&</sup>lt;sup>37</sup>See the Player 2 payoffs in Appendix Table A.4 in the UG and the DG-EFF since those are the allocations that can result from the interfering experience. When a decision-maker chooses the socially-oriented option in either of these games, Player 2 always receives 5. When a decision-maker chooses the non-socially-oriented option in either of these games, Player 2 receives 0 in the DG-EFF and 0 in the UG if Player 2 rejects the unequal split (which was indeed the case for the Player 2s who were matched to the decision-makers selected to be partners in this study).

contexts—shows that participants pay attention to this distributional information. Nonetheless, even after participants are provided with this distributional information on the similar contexts, we still observe a significant impact of the interfering experience. In particular, there is a no-table difference between the believed gender gap in the *Information* + *Interfering Experience of a Socially-Oriented Man* condition (see Column 3) and the believed gender gap in the *Information* + *Interfering Experience of a Socially-Oriented Woman* condition (see Column 4). While we do not observe any evidence for the believed gender gap when participants encounter an interfering experience with a socially-oriented man and a non-socially-oriented woman, we again observe the believed gender gap in the DG of 8.46 percentage points when participants encounter an interfering experience with a socially-oriented woman and a non-socially-oriented man. In addition, the size of the believed gender gap is significantly larger in this latter interfering experience (p < 0.01). While comparing across these interfering experience conditions is attractive because it allows us to hold constant the amount that participants are allocated as well as the overall structure of the study, we note that the believed gender gap in the DG is also significantly different (p < 0.01) when comparing either interfering experience condition to the *Information Only* condition.

As shown in Appendix Table A.33, we also replicate these results with 1,598 new participants with an additional study, the Interfering Experience (Robustness) Study. In this study, participants are reminded of the distributional information in the interfering experience stage (and no longer asked about how they feel about their experienced allocations). The persistence of our results in this robustness study highlights how an interfering experience affects beliefs even when we reduce the scope for recency effects.

			Information + Interfering Experience of		
	Baseline	Information Only	Socially- Oriented Man	Socially-Oriented Woman	
	(1)	(2)	(3)	(4)	
B(F)	54.76	40.16	39.21	44.36	
B(M)	42.89	36.47	40.39	35.90	
$\Delta$	11.87***	3.69***	-1.18	8.46***	
	(0.91)	(0.45)	(0.79)	(0.80)	
Ν	800	798	798	804	

Table 3: Regressions of the believed percent of decision-makers choosing the sociallyoriented outcome in the first-party dictator game of the Interfering Experience Study by condition

Notes. B(F) and B(M) show the average believed percent of female and male decision-makers who choose the socially-oriented outcome in the DG.  $\Delta$  shows the difference in these percentages. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–4 correspond to the beliefs in the *Baseline* condition, *Information Only* condition, *Information + Interfering Experience of a Socially-Oriented Man* condition, and *Information + Interfering Experience of a Socially-Oriented Woman* condition, respectively. The data are from the Interfering Experience Study.

# 5 The Believed Gender Gap in Social Preferences and Connections with the Household, the Workplace, and Policy Views

Motivated by prior work, there are many potential connections between the believed gender gap in social preferences and beliefs about men and women in the household, in the workplace, and in relation to their policy views (Fong, 2001; Aguiar and Hurst, 2007; Eckel, de Oliveira and Grossman, 2008; Alesina and Giuliano, 2011; Durante, Putterman and van der Weele, 2014; Fisman, Jakiela and Kariv, 2014; Gärtner, Mollerstrom and Seim, 2017; Capraro, 2020; Doepke and Kindermann, 2019; Cappelen et al., 2020; Stantcheva, 2020, 2021, 2023; Cappelen et al., 2022; Ranehill and Weber, 2022). In Section 5.1, we indeed find that women are believed to be more equality-oriented in scenarios relating to the household (i.e., relating to the beliefs about contributions to the home, family, and upbringing of children), to the workplace (i.e., relating to beliefs about equal pay) as well as their policy views (i.e., relating to beliefs about redistribution, equal access to education, healthcare, and affordable housing). In Section 5.2, to explore the beliefs about equal pay further, we also document that female employers—in an incentivized experiment—are believed to favor equal pay over performance pay more often than men are. Then, in Section 5.3, as evidence of a potential implication of this belief, we show that workers favor female employers more when equal pay is to the workers' benefit.<sup>38</sup> Finally, in Section 5.4, we confirm the robustness of the believed gender gap in social preferences to a sample of "professional" participants who self-report hiring and management experience and provide data on what they believe are the related labor market implications.

To establish these results, we ran four additional studies: the Equality Attitudes & Employer Study, the Broader Beliefs (Equality Attitudes) Study, the Worker Study, and the Professional Participants Study. Appendix Table A.3 provides an overview of these studies—including references to the full experimental instructions, implementation details that relate to randomization of questions and payments, and additional design tables. The following subsections will provide a high level design overview of these studies along with references to the main results.

# 5.1 Are women believed to be more equality-oriented in the workplace, in the household, and in their policy views?

To investigate whether women are believed to be more equality-oriented in the workplace, in the household, and in their policy views, we recruited 400 online participants to complete the Equality Attitudes & Employer Study. In this study, participants are asked whether or not they mostly agree with eight equality statements and are incentivized to accurately provide beliefs about the percent of

<sup>&</sup>lt;sup>38</sup>This adds to prior work showing that individuals are more likely to select women to be decision-makers in ultimatum games, trust games, and dictator games (Holm and Engseld, 2005; Slonim and Garbarino, 2008; Aguiar et al., 2009).

men and women who agree with these equality statements. These equality statements are shown in Appendix Table A.11 and inspired by questionnaires of the International Social Survey Programme and prior work (Kuhn, 2011; Luttmer and Singhal, 2011; Almås, Cappelen and Tungodden, 2020).

Appendix Table A.34 indicates that, in response to 7 out of the 8 equality statements, there is *not* a significant gender difference in equality attitudes.<sup>39</sup> Nonetheless, Table A.35 reveals a robust believed gender gap in equality attitudes: women are believed to be significantly more likely—indeed anywhere from 8 to 21 percentage points more likely—to favor: (i) society trying to equalize incomes, (ii) the government taking steps to reduce income inequality, (iii) equal pay, (iv) equal household contributions, (v) equal parental involvement in children's lives, (vi) equal access to healthcare, (vii) equal access to education, and (viii) equal access to affordable housing. Additional results reveal similar patterns and robustness as observed in the Economic Games Studies.<sup>40</sup>

In addition, as shown in Appendix Table A.46, the Broader Beliefs (Equality Attitudes) Study, confirms the robustness of these results to eliciting beliefs about broader equality attitudes rather than *stated* broader equality attitudes.

#### 5.2 Are female employers believed to choose equal pay more often?

To further examine beliefs about equal pay, participants in the Equality Attitudes & Employer Study also make an incentivized decision as an "employer"—inspired by the design in Almås, Cappelen and Tungodden (2020)—and then provide incentivized beliefs about how likely male and female employers are to choose equal pay in that decision. Specifically, employers are asked to choose between implementing *equal pay* and *performance pay* for pairs of workers. If an employer chooses equal pay for a pair of workers, both workers in a pair are allocated \$3. If an employer chooses performance pay for a pair of workers, the "high performing" worker is allocated \$6 while the "low performing" worker is allocated \$0. In each pair, the high performing worker is the worker who answers more questions correctly on a math and science test with 10 questions (or the worker who is randomly selected in the event of them answering the same number of questions correctly.)<sup>41</sup>

Male and female employers both favor equal pay: male employers choose equal pay 69% of the time and female employers choose equal pay 71% of the time. This difference is not statistically significant (p = 0.64).

<sup>&</sup>lt;sup>39</sup>The only significant difference is that women are more likely to indicate agreement with the first equality statement, which says "Society should aim to equalize incomes."

<sup>&</sup>lt;sup>40</sup>Appendix Table A.36 shows that the believed gender gap is robust to several restrictions on our data. Appendix Figure B.6 shows that the distribution of the beliefs about women first-order stochastically dominates the distribution of beliefs about men and these distributions are statistically different (Kolmogorov-Smirnov test, p < 0.01). Appendix Table A.37 shows that the vast majority of participants believe that the percent of women favoring equality is higher than the percent of men favoring equality. Appendix Table A.38 reveals similar heterogeneity as before (i.e., women believe the gender gap is larger and individuals who favor equality are more likely to believe others favor equality). Finally, Appendix Table A.39 shows that the believed gender gap in equality attitudes is inaccurate.

 $<sup>^{41}</sup>$ We follow much of the baseline condition in Almås, Cappelen and Tungodden (2020) – e.g., like them, participants are matched in groups of three, two of whom are workers completing a performance task and one whose task is to choose to allocate (\$3, \$3) or (\$6, \$0) to the workers. Employers are not allocated any money in this part, which allows us to narrow in on beliefs about equality per se.

But, female employers are expected to choose equal pay more often: on average, 72% of female employers are expected to choose equal pay while only 52% of male employers are expected to choose equal pay. This 20 percentage point difference is statistically significant (p < 0.01). Additional results reveal similar patterns and robustness as observed in the Economic Games Studies.<sup>42</sup>

#### 5.3 Are female employers favored more when equal pay is beneficial?

Since female employers are expected to favor equal pay, one may wonder if it follows that workers are more likely to favor female employers when they are low performers (who benefit from equal pay) rather than high performers (who benefit from performance pay).<sup>43</sup>

To investigate this, we recruited 400 online participants to complete the Worker Study, who are the "workers" discussed in Section 5.2. After they are incentivized to answer as many questions correctly as they can on a 10 question math and science test and then to provide accurate beliefs about their performance on that test, they make two main decisions—a strategy-method decision and a direct decision—about whether they would prefer to work for a male or female employer.

In the strategy-method decision, workers indicate whether they would prefer to choose a male or female employer (i) in the event that they are a high performer who would benefit from performance pay, and (ii) in the event that they are a low performer who would benefit from equal pay. Consistent with workers favoring female employers more when it is to their benefit because they are low performers, workers are 39 percentage points (p < 0.01) more likely to choose a female employer when making decisions as a low performer (in which case they choose a female employer 85%) as compared to when making decisions as a high performer (in which case they choose a female employer 47% of the time).<sup>44</sup>

In the direct decision, participants are only asked to make one choice as to whether they prefer a

<sup>&</sup>lt;sup>42</sup>Appendix Table A.40 shows that the believed gender gap in equal pay is robust to several restrictions on our data. Appendix Figure B.7 shows that the distribution of the beliefs about female employers first-order stochastically dominates the distribution of beliefs about male employers and these distributions are statistically different (Kolmogorov-Smirnov test, p < 0.01). The results persist at the participant level: 91% of participants believe the percent of female employers favoring equal pay is higher than the percent of male employers favoring equal pay, 5% of participants believe the reverse, and 4% of participants believe there is no gender difference. Appendix Table A.41 reveals similar heterogeneity as before (i.e., women believe the gender gap is directionally larger and individuals who choose equal pay when they are employers are directionally more likely to believe other employers favor equality). Given that—relative to men—women only choose equal pay 2 percentage points more often but are believed to choose equal pay 20 percentage points more often, the believed gender gap in equality attitudes is significantly inaccurate (p < 0.01).

<sup>&</sup>lt;sup>43</sup>Here, we purposefully narrow in on the *financial* benefit in a simple one-employment decision setting. More broadly considering how equal pay is defined and what factors may be to one's benefit (e.g., including the role of image concerns) are some of the many important avenues for future work.

<sup>&</sup>lt;sup>44</sup>This behavior also aligns with the belief that low performers are more likely to benefit from female employers because female employers are more likely to choose equal pay. In addition to documenting this belief with incentivized belief data from employers (Recall from Section 5.2), this belief is confirmed with additional unincentivized belief data from the workers. For each state of the world in the strategy-method decision, workers were asked whether they expect to earn more from male employers, to earn more from female employers, or to earn the same from both. When asked about the state in which they are the high performer, 44% of workers expect to earn more from male employers while only 11% of workers expect to earn more from female employers. By contrast, when asked about the state in which they are the low performer, only 4% expect to earn more from male employers while 54% expect to earn more from female employers. The rest of the subjects expect no difference.

male or female employer, so they cannot make different choices according to whether they are a low or high performer. But, when we condition their choice according to whether they *believe* they are a high performer or not, similar results follow.<sup>45</sup> Workers are 35 percentage points (p < 0.01) more likely to favor female employers if they *believe* they are a low performer (in which case they choose female employers 84% of the time) as compared to when they *believe* they are a high performer (in which case they choose female employers 49% of the time).

# 5.4 What are professional participants' beliefs about women and the related labor market consequences?

To examine the beliefs of individuals with employment-related experience (DellaVigna and Pope, 2018a, b), we recruited 400 "professional participants" from Prolific who had self-reported experience with management and hiring.<sup>46</sup> These professional participants provide three sets of beliefs.

First, in response to belief questions about equality attitudes, as shown in Appendix Table A.43, professional participants believe that women are significantly more likely to think that: (i) society should aim to equalize incomes, (ii) the government should take measures to reduce differences in income levels, (iii) all people should be paid equally, rather than according to their performance, for the same job, (iv) spouses should take equal responsibility for the home and family, (v) both parents should be equally involved in the upbringing of a child, (vi) all people should have equal access to health care, (vii) all people should have equal access to education, and (viii) all people should have equal access to suitable and affordable housing.<sup>47</sup>

Second, as shown in Appendix Table A.44, professional participants also think women are in general more likely to (i) make generous decisions, (ii) make decisions that achieve equality, and (iii) favor equal pay over performance pay.

Third, professional participants expect these believed gender differences in social preferences to have labor market consequences. As shown in Appendix Table A.45, when professional participants are asked about whether these believed gender differences are likely to be helpful or harmful to a woman's chance of succeeding as a leader and to a woman's chance of being hired, professional participants predict that these beliefs are: (i) at least two times more likely to be *harmful* than helpful to women in *workplaces that are highly competitive* but instead (ii) at least three times more likely to be *helpful* than harmful to women in *workplaces that are more cooperative and that rely on social skills*. Interesting questions for future work relate to whether such expected consequences of the believed gender gap in social preferences influence women's willingness to select into competitive

<sup>&</sup>lt;sup>45</sup>38% of participants believe they are a high performer, and 62% of participants believe they are a low performer. <sup>46</sup>Specifically participants needed to answer "Yes" in a pre-screening questionnaire to the following two questions, "Do you have any experience being in a management position?", and "Do you have any experience in making hiring decisions (i.e. have you been responsible for hiring job candidates)?", similar to other recent studies (Huber and Huber, 2020; Saccardo and Serra-Garcia, 2023). Additionally, participants needed to have an approval rating of 95% or greater from at least 100 prior submissions and chose the United States when asked for their nationality.

<sup>&</sup>lt;sup>47</sup>Encouragingly, that such beliefs may arise with professional participants also echo one of the prior (undiscussed) results in Table 6 of Heinz and Schumacher (2017).

workplaces or positions as well as the extent to which these expected consequences are accurate.<sup>48</sup>

## 6 Conclusion

Despite finding little to no gender differences in observed behavior or attitudes relating to social preferences, this paper documents robust *believed* gender differences. Across a wide range of contexts involving 8,979 subjects and 15 studies, women are believed to be substantially and significantly more socially-oriented, i.e., more generous and more equality-oriented. The believed gender gap in social preferences arises across contexts with and without strategic considerations, across contexts with various payoffs in relation to selfishness and the benefits to others, and across contexts with differing and sometimes competing notions of fairness (e.g., in first- and third-party versions of dictator games, dictator games that involve efficiency concerns, dictator games that involve entitlement concerns, ultimatum games, trust games, prisoner's dilemma games, and public goods games). The believed gender gap in social preferences is robust to four different subject pools (undergraduate students, online participants, professional participants, and a representative sample) and various types of participants (e.g., including the beliefs held by men and women). The believed gender gap in social preferences is also robust to various study versions that: offer participants donation multipliers that are as high as 10 when they are asked to give; elicit broader beliefs such as those relating to whether women favor "decisions that achieve equality"; obscure our focus on gender; and ask fewer or differently framed belief questions.

The believed gender gap in social preferences extends to beliefs about the household (i.e., beliefs about contributions to the home, family, and upbringing of children), the workplace (i.e., beliefs about equal pay) and policy views (i.e., beliefs about redistribution as well as equal access to education, healthcare, and affordable housing). As further evidence of the potential connection between important economic outcomes and believed gender gap in social preferences, we also highlight a few specific connections with data from an incentivized worker-employer experiment and from professional participants who are asked about expected labor market consequences. With the former, we show that being a high performer who benefits from performance pay (rather than equal pay) decreases the extent to which workers favor female employers. With the latter, we show that professional participants think the believed gender gap in social preferences will be helpful to women in cooperative workplaces but harmful to women in competitive workplaces.

Finally, when considering potential explanations for the believed gender gap in social preferences, we turn to prior theoretical work—as well as prior empirical work in domains other than those related to gender and social preferences—that highlights the connection between associative memory and belief formation. In doing so, we find support for two of the defining features of associative memory models: similarity and inference. Two correlational studies reveal that the believed gender gap is larger: (i) among participants who name a woman when asked to recall someone they think of as being generous, (ii) among participants who report having spent more of their childhood with

<sup>&</sup>lt;sup>48</sup>For examples of related work, see Buser, Niederle and Oosterbeek (2014) and Flory, Leibbrandt and List (2015).

female caretakers, and (iii) among participants who report having experienced, over the course of their life, relatively more women who are generous and equality-oriented. Two large studies also show that an interfering experience causally affects the believed gender gap in social preferences, even though we examine a setting in which the interfering experience should have no impact if participants are perfect-memory Bayesians.

Our results suggest several avenues for future work, four of which we highlight here. A first avenue is to explore ways to provide information that accurately affects the believed gender gap in social preferences, particularly given the potential for interfering experiences to counteract the effectiveness of this information. In our Interfering Experience Study, the believed gender gap in social preferences was significantly and accurately reduced when participants were provided with distributional information about the socially-oriented behavior of men and women and when there were *no* interfering experiences. In addition to the clear challenges that may arise in finding such comprehensive information and encouraging attention to such information outside of controlled laboratory settings, another challenge likely relates to interfering experiences being unavoidable on a long run basis.

A second avenue for future work is to further investigate how the believed gender gap in social preferences connects with labor market outcomes. Building off of our results around when female employers are favored given beliefs about employer pay tendencies, a natural question for future work is whether and how these types of preferences contribute to differential outcomes for male and female employers. Future work may also investigate the extent to which—as predicted by professional participants—the believed gender gap in social preferences is helpful to women in cooperative workplaces but harmful to women in competitive workplaces, particularly when considering differential success in certain tasks, jobs, and industries.

A third avenue for future work is to explore if there are domains in which the believed gender gap is particularly strong or perhaps even reverses. While we find robust evidence across a wide range of contexts—including more abstract contexts as well as contexts related to the household and workplace—one could imagine that the extent of the believed gender gap could depend on domain and related stereotypes (Günther et al., 2010; Shurchkov, 2012; Coffman, 2014; Dreber, von Essen and Ranehill, 2014; Bordalo et al., 2019; Coffman, Collis and Kulkarni, 2023*b*; Coffman, Flikkema and Shurchkov, 2021; Saygin and Atwater, 2021; Exley and Kessler, 2022; Aksoy, Exley and Kessler, 2024). Future work may first investigate which types of socially-oriented behaviors are considered male-stereotyped versus female-stereotyped and then examine whether the believed gender gap in social preferences differs in a predictable way in these behaviors.<sup>49</sup>

A fourth avenue for future work is to investigate whether the believed gender gap in social preferences results in women being rewarded less when they are socially-oriented and punished

<sup>&</sup>lt;sup>49</sup>On this, we note that Musick and Wilson (2008) discusses how men appear to volunteer more in domains related to public safety and emergency services while women appear to volunteer more in domains related to education and human services. Chandar et al. (2019) also find that tips given to Uber drivers are on average higher among men than women.

more when they are not socially-oriented.<sup>50</sup> Indeed, one interpretation of the believed gender gap in social preferences is that individuals seem to hold lower "standards" for men when it comes to how socially-oriented they are, and future work may naturally investigate how this connects to gender-specific backlash and lower assessments of women in negotiations, in leadership roles, or in the workplace more generally (Riach and Rich, 2002; Bowles, Babcock and Lai, 2007; Rudman and Phelan, 2008; Grossman et al., 2019). For instance, if women pursue their own financial interests too little, they may forgo financially favorable opportunities. But, if women pursue their own financial interests too much, they may experience backlash due to not being as socially-oriented as women are expected to be.<sup>51</sup>

<sup>&</sup>lt;sup>50</sup>Examining how individuals are rewarded (or punished) for socially-oriented behavior (or the lack thereof) is a particularly important question given the rich literature on how observability influences socially-oriented behavior (see, e.g., Andreoni and Petrie (2004), Ariely, Bracha and Meier (2009), Andreoni and Bernheim (2009), Lacetera and Macis (2010), Exley (2017) and Bolton, Dimant and Schmidt (2021)).

<sup>&</sup>lt;sup>51</sup>Nuances like these make clear why caution is warranted with blanket recommendations to "lean in" (Exley, Niederle and Vesterlund, 2020). The complexity of this situation also, in our view, lends further support to, rather than focusing on "change the women" approaches, to carefully investigate "change the system" approaches. For examples of "change the system" approaches, see Bohnet (2016), Bohnet, van Geen and Bazerman (2016), Apicella, Demiral and Mollerstrom (2017), He, Kang and Lacetera (2021), and Kessel, Mollerstrom and van Veldhuizen (2021).

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Online Appendix for

Believed gender differences in social preferences By: Christine L. Exley, Oliver P. Hauser, Molly Moore, and John-Henry Pezzuto

## A Additional Tables

Study	Description	Sample Details	Date	Base Pay	Beliefs Pay \$B	Paper Section	Instructions Appendix
Economic Games (Undergraduate Students) Study	We elicit participants' decisions (see Appendix Table A.6) and in- centivized beliefs (see Appendix Table A.5) about 14 scenarios re- lating to common economic games.	Undergrad. Students $(N = 382)$	Dec. 2020	£7	£10	3.1	C.1
Economic Games (Online Participants) Study	Same as Economic Games (Under- graduate Students) Study, except payoff amounts are adjusted and some instructions simplified. See Appendix Tables A.6 and A.5 for decision and belief questions.	Prolific $(N = 400)$	March 2021	\$8	\$2	3.1	C.2
Economic Games (Beliefs Only) Study	We elicit incentivized beliefs (and not decisions) about the decisions from the Economic Games (Online Participants) Study and only show one belief question per screen. See Appendix Table A.5.	Prolific $(N = 399)$	March 2022	\$4	\$2	3.4.6 – 3.4.7	C.3
Economic Games (Additional Demographics) Study	We elicit incentivized beliefs about the first-party DG from the Eco- nomic Games (Online Partici- pants) Study, except rather than only providing information on a participant's gender we also pro- vide information on a participant's income and age. See Appendix Ta- ble A.7.	$\begin{array}{c} \text{Prolific} \\ (N = 400) \end{array}$	August 2022	\$3	\$1	3.4.8	C.4
Economic Games (Stakes Vary) Study	Rather than focusing on specific economic games, we elicit partic- ipants' decisions and incentivized beliefs about giving decisions with various efficiency levels (see Ap- pendix Table A.8).	Prolific $(N = 400)$	May 2023	\$3	\$1	3.4.9	C.5
Broader Beliefs (Online Participants) Study	We elicit unincentivized broader belief questions about 14 scenarios (see Appendix Table A.9) inspired by the 14 economic games in the Economic Games (Undergraduate Students) Study.	$\begin{array}{l} \text{Prolific} \\ (N = 400) \end{array}$	March 2021	\$3	N/A	3.4.10	C.6
Broader Beliefs (Representative Sample) Study	Same as Broader Beliefs (Online Participants) Study (see Appendix Table A.9), except that we part- nered with Dynata to recruit a sample that is nationally represen- tative along gender, age, and in- come.	Repres. Sample $(N = 1,001)$	April 2021	See Table A.42	N/A	3.4.11	C.7

Table A.1: Studies Discussed in Section 3

*Notes.* For all studies run on Prolific, we restrict to the set of participants who had an approval rating of 95% or greater from at least 100 prior submissions and chose the United States when asked for their nationality. The first two studies and the Stakes Vary study elicit incentivized beliefs in one part and decisions in the other part; one part is randomly selected to count. The second two only elicit incentivized beliefs. The remaining studies only elicit unincentivized beliefs. In each belief question, on a slider that ranges from 0% to 100%, participants select a 7-point point range as their answer. In incentivized belief questions, they are allocated \$B (exact amount in Beliefs Pay column) if the selected range includes the right answer. They receive, as a bonus, how much they are allocated in one randomly selected belief question if the belief part counts or if the study only elicits incentivized beliefs. In the first two studies or the Stakes Vary study, if the decision part is randomly selected to count, the bonus payment is the amount allocated to the participant in a randomly chosen decision in that part; see Section 3.4.9 and experimental instruction appendices C.1, C.2, and C.5 for details.

Study	Description	Sample Details	Date	Base Pay	Beliefs Pay \$B	Paper Section	Instructions Appendix
Recalled Person Study	We elicit incentivized beliefs about the first-party DG from the Eco- nomic Games (Online Participants) Study and ask to recall a person who is "likely to give to others".	Prolific $(N = 399)$	April 2022	\$1.50	\$2	4.1	C.8
Recalled Experience Study	We elicit incentivized beliefs about the first-party DG from the Eco- nomic Games (Online Participants) Study and ask to recall childhood experiences and experiences over the course of one's life.	Prolific $(N = 400)$	Nov. 2022	\$2	\$1	4.2	C.9
Interfering Experience Study	We elicit incentivized beliefs about the first-party DG from the Eco- nomic Games (Undergraduate Stu- dents) Study across various treat- ments, in some of which participants are provided with information on the behavior of men and women.	Prolific $(N = 1, 600)$	Aug. 2022	\$2	\$1	4.3	C.10
Interfering Experience (Robustness) Study	Same as the Interfering Experience Study, with main difference relating to additional questions about the in- formation on the behavior of men and women.	$\frac{\text{Prolific}}{(N=1,598)}$	June 2023	\$2	\$1	4.3	C.11

Table A.2: Studies Discussed in Section 4

Notes. For all studies run on Prolific, we restrict to the set of participants who had an approval rating of 95% or greater from at least 100 prior submissions and chose the United States when asked for their nationality. All studies only elicit incentivized beliefs. In each belief question, on a slider that ranges from 0% to 100%, participants select a 7-point point range as their answer. In incentivized belief questions, they are allocated \$B (exact amount in Beliefs Pay column) if the selected range includes the right answer. Participants receive, as a bonus, how much they are allocated in one randomly selected belief question in all studies except the Interfering Experience Studies. In the Interfering Experience Studies, they receive how much they are allocated in one randomly selected belief question or in one randomly selected allocation from their partner.

Study	Description	Sample Details	Date	Base Pay	Beliefs Pay \$B	Paper Section	Instructions Appendix
Equality Atti- tudes & Em- ployer Study	We elicit agreement with eight equal- ity attitudes (see Table A.11) and in- centivized beliefs (see Appendix Ta- ble A.12). Then participants ("em- ployers") choose whether to (1) pay two workers equally (\$3 each) or (2) pay the high performer more (\$6) than the low performer (\$0). We elicit in- centivized beliefs about other employ- ers paying workers equally or the high performer more.	Prolific $(N = 400)$	Dec. 2021	\$2	\$1	5.1 – 5.2	C.12
Broader Beliefs (Equality Atti- tudes) Study	We elicit broader belief questions about equality attitudes inspired by the Equality Attitudes & Employer Study as well as belief questions in- spired by the Economic Games Stud- ies (see Appendix Table A.16)	Prolific $(N = 400)$	Dec. 2021	\$2	N/A	5.1	C.15
Worker Study	After completing a 10-item test that determines being the low or high per- former, participants provide beliefs and make two types of decisions. In the direct decision, they choose a male or female employer from the Equality Attitudes & Employer Study. In the strategy-method decision, they choose a male or female employer in the event they are a low performer and in the event they are a high performer.	Prolific $(N = 400)$	Dec. 2021	\$3	See foot- note	5.3	C.13
Professional Participants Study	We elicit beliefs about 8 equality at- titudes that are akin to those studied in the Equality Attitudes & Employer Study (see Appendix Table A.13), be- liefs about men and women in gen- eral (see Appendix Table A.14) and beliefs about the potential impact of the believed gender gap in social pref- erences on labor market outcomes (see Appendix Table A.15). Only partic- ipants with experience in hiring and management are recruited.	Prolific $(N = 400)$	Dec. 2022	\$2	N/A	5.4	C.14

Table A.3: Studies Discussed in Section 5

*Notes.* For all studies run on Prolific, we restrict to the set of participants who had an approval rating of 95% or greater from at least 100 prior submissions and chose the United States when asked for their nationality. Additionally, in the Professional Participants Study, we further restrict to the set of participants who report having management and hiring experience. The first two studies elicit incentivized beliefs in one (or more) parts and decisions in one (or more) parts, and one part is randomly selected to count. The remaining studies only elicit unincentivized beliefs. In each belief question about others' decisions, participants provide an answer via a slider that allows them to select a range that covers 7-percentage points from 0% to 100%. In the Worker Study, in each belief question about their own performance, participants provide an answer from the dropdown menu or the multiple-choice set. In incentivized belief questions, they are allocated \$1 if they select a range on the slider that includes the right answer or if the answer about their performance is correct. They then receive, as a bonus, how much they are allocated either (1) 10 cents for every question they answer correctly on the 10-item test or (2) \$0 or \$6 based on their performance in the event that their employer chose to pay the high performer more or (3) \$3 in the event that their employer chose to pay workers equally. They then receive, as a bonus, how much they accumulated in the 10-item test if that part counts, or how much they are allocated decision if a decision part counts.

Scenario	Game	P1 or NP chooses D1	P1 or NP chooses D2
		("non-socially-oriented")	("socially-oriented")
1 or 8	DG	UNEQUAL SPLIT	EQUAL SPLIT
		(10,0)	(5,5)
2 or 9	DG-EFF	UNEQUAL SPLIT	EQUAL SPLIT
		(15,0)	(5,5)
3 or 10	DG-ENT	UNEQUAL SPLIT	EQUAL SPLIT
		(10,0) if P1 outperforms P2	(5,5)
		(5,5) otherwise	
4 or 11	UG	PROPOSE UNEQUAL SPLIT	PROPOSE EQUAL SPLIT
		(9,1) if P2 accepts it	(5,5)
		(0,0) otherwise	
5  or  12	TG	DISTRUST	TRUST
		(10,0)	(10,10) if P2 rewards trust
			(0,20) if P2 punishes trust
6  or  13	PD	DEFECT	COOPERATE
		(15,0) if P2 cooperates	(10,10) if P2 cooperates
		(5,5) if P2 defects	(0,15) if P2 defects
7 or 14	PGG	DON'T CONTRIBUTE	CONTRIBUTE
		(18,8) if P2 contributes	(16,16) if P2 contributes
		(10,10) if P2 doesn't contribute	(8,18) if P2 doesn't contribute

Table A.4: Scenarios in the Economic Games Studies

Notes. This table shows the points for Player 1 and Player 2 (P1,P2) in each scenario according to the decisions made. In Scenarios 1–7, P1 chooses between the "non-socially oriented" option (D1) and the "socially-oriented" option (D2). In Scenarios 8–14, the Neutral Player (NP) chooses between D1 and D2. In the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), and the Dictator Game with entitlement concerns (DG-ENT) games, P2 never makes a decision. In the other games, P2 makes a binary decision and influences the payoffs in the manner shown. In the Ultimatum Game (UG), P2 makes a binary decision about whether, in the event that D1 is chosen (i.e., the unequal split is proposed), to accept or reject the unequal split. In the Trust Game (TG), P2 decides whether, in the event that D2 is chosen (i.e., trust is shown), to reward or punish the trust that is shown. In the Prisoner's Dilemma (PD), P2 decides to cooperate or defect. In the Public Goods Game (PGG), P2 decides to contribute or not to contribute. Each point is equal to £1 or \$0.10 when we run with undergraduate students and online participants, respectively.

	nel A (Belle	s about First-Party Scenarios):	
"W	hat percentage	e of male (female) Player 1s do you think choo	ose to [the non-socially-oriented option]?"
	Game	Non-socially-oriented option	Socially-oriented option
1	DG	keep more	split
		(10,0)	(5,5)
2	DG-EFF	keep more	split
		(15,0)	(5,5)
3	DG-ENT	reward themselves when they perform	split
		better	
		(10,0) if P1 outperforms P2	(5,5)
	щa	(5,5) otherwise	
4	UG	keep more	split
		(9,1) if P2 accepts it	(5,5)
٣	тa	(0,0) otherwise	
Э	IG		(10, 10) if P2 rewards trust
		(10,0)	(10,10) if P2 pupiches trust
6	PD	defect	(0,20) If 1 2 putilisties trust
0	ТD	(15.0) if P2 cooperates	(10, 10) if P2 cooperates
		(15,0) if P2 defects	(10,10) if P2 defects
7	PGG	not contribute	contribute
'	100	(18.8) if P2 contributes	(16.16) if P2 contributes
		(10,0) if P2 doesn't contribute	(8.18) if P2 doesn't contribute
Pa	nel B (Belief	s about Third-Party Scenarios):	
"W	hat percentage	e of male (female) Neutral Players do you thin	ak choose to [the non-socially-oriented option]?"
	Game	Non-socially-oriented option	Socially-oriented option
8			
		koon moro	enlit
0	DG	keep more $(10,0)$	split
0	DG-EFF	keep more (10,0)	split (5,5) split
9	DG-EFF	<b>keep more</b> (10,0) <b>keep more</b> (15,0)	<b>split</b> (5,5) <b>split</b> (5,5)
9 10	DG-EFF DG-ENT	keep more (10,0) keep more (15,0) reward themselves when they perform	split (5,5) split (5,5) split
9 10	DG-EFF DG-ENT	keep more (10,0) keep more (15,0) reward themselves when they perform better	split         (5,5)         split         (5,5)         split
9 10	DG-EFF DG-ENT	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2	split (5,5) split (5,5) split (5,5)
9 10	DG-EFF DG-ENT	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5.5) otherwise	split (5,5) split (5,5) split (5,5)
9 10 11	DG-EFF DG-ENT UG	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more	split (5,5) split (5,5) split (5,5) split
9 10 11	DG-EFF DG-ENT UG	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9.1) if P2 accepts it	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)
9 10 11	DG-EFF DG-ENT UG	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)
9 10 11 11	DG-EFF DG-ENT UG TG	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise distrust	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)
9 10 11 12	DG-EFF DG-ENT UG TG	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise distrust (10,0)	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         trust         (10,10) if P2 rewards trust
9 10 11 12	DG-EFF DG-ENT UG TG	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise distrust (10,0)	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         trust         (10,10) if P2 rewards trust         (0,20) if P2 punishes trust
9 10 11 12 13	DG-EFF DG-ENT UG TG PD	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise distrust (10,0) defect	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         trust         (10,10) if P2 rewards trust         (0,20) if P2 punishes trust         cooperate
9 10 11 12 13	DG-EFF DG-ENT UG TG PD	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise distrust (10,0) defect (15,0) if P2 cooperates	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         split         (10,10) if P2 rewards trust         (0,20) if P2 punishes trust         cooperate         (10,10) if P2 cooperates
9 10 11 12 13	DG-EFF DG-ENT UG TG PD	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise distrust (10,0) defect (15,0) if P2 cooperates (5,5) if P2 defects	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         split         (10,10) if P2 rewards trust         (0,20) if P2 punishes trust         cooperate         (10,10) if P2 cooperates         (0,15) if P2 defects
9 10 11 12 13 14	DG-EFF DG-ENT UG TG PD PGG	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise distrust (10,0) defect (15,0) if P2 cooperates (5,5) if P2 defects not contribute	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         split         (10,10) if P2 rewards trust         (0,20) if P2 punishes trust         cooperate         (10,10) if P2 cooperates         (0,15) if P2 defects         contribute
9 10 11 12 13 14	DG-EFF DG-ENT UG TG PD PGG	keep more (10,0) keep more (15,0) reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise keep more (9,1) if P2 accepts it (0,0) otherwise distrust (10,0) defect (15,0) if P2 cooperates (5,5) if P2 defects not contribute (18,8) if P2 contributes	split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         split         (5,5)         split         (10,10) if P2 rewards trust         (0,20) if P2 punishes trust         cooperate         (10,10) if P2 cooperates         (0,15) if P2 defects         contribute         (16,16) if P2 contributes

## Table A.5: Belief Questions in the Economic Games Studies

Notes. This table shows the belief question asked about men (women) in each scenario in the Economic Games (Undergraduate Students) Study, Economic Games (Online Participants) Study and Economic Games (Beliefs Only) Study. The games in the Game column corresponds to: the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). Beliefs are elicited about the percentage of Player 1s (P1s) or Neutral Players (NPs) choosing the non-socially-oriented option. The resulting payoffs for the decisions of that other player are shown in parentheses. Questions 1–7 refer to "first-party" scenarios and 8–14 to "third-party" scenarios. For full question wording and details, see the experimental instruction appendices corresponding to each study: C.1, C.2, C.3.

Panel A (	Decisions, Fi	rst-Party Scenarios):	
"What do y	you want to do	?"	
Scenario	Game	Non-socially-oriented option	Socially-oriented option
1	DG	<b>keep more</b> (10,0)	<b>split</b> (5,5)
2	DG-EFF	<b>keep more</b> (15,0)	<b>split</b> (5,5)
3	DG-ENT	reward myself when I perform better (10,0) if P1 outperforms P2 (5,5) otherwise	<b>split</b> (5,5)
4	UG	<b>keep more</b> (9,1) if P2 accepts it (0,0) otherwise	<b>split</b> (5,5)
5	TG	<b>distrust</b> (10,0)	<b>trust</b> (10,10) if P2 rewards trust (0,20) if P2 punishes trust
6	PD	defect (15,0) if P2 cooperates (5,5) if P2 defects	<b>cooperate</b> (10,10) if P2 cooperates (0,15) if P2 defects
7	PGG	do not contribute (18,8) if P2 contributes (10,10) if P2 doesn't contribute	<b>contribute</b> (16,16) if P2 contributes (8,18) if P2 doesn't contribute
Panel B (	Decisions, Tl	nird-Party Scenarios):	
"What do y	you (as the Neu	itral Player) want Player 1 to do?":	
Scenario	Game	Non-socially-oriented option	Socially-oriented option
8	DG	<b>keep more</b> (10,0)	<b>split</b> (5,5)
9	DG-EFF	<b>keep more</b> (15,0)	<b>split</b> (5,5)
10	DG-ENT	reward themselves when they perform better (10,0) if P1 outperforms P2 (5,5) otherwise	<b>split</b> (5,5)
11	UG	<b>keep more</b> (9,1) if P2 accepts it (0,0) otherwise	<b>split</b> (5,5)
12	TG	<b>distrust</b> (10,0)	<b>trust</b> (10,10) if P2 rewards trust (0,20) if P2 punishes trust
13	PD	defect (15,0) if P2 cooperates (5,5) if P2 defects	<b>cooperate</b> (10,10) if P2 cooperates (0,15) if P2 defects
14	PGG	<b>not contribute</b> (18,8) if P2 contributes (10,10) if P2 doesn't contribute	<b>contribute</b> (16,16) if P2 contributes (8,18) if P2 doesn't contribute

Table A.6: Decisio	n Questions	in the	Economic	Games	Studies
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Notes. This table shows the decisions asked in each scenario in the Economic Games (Undergraduate Students) Study and Economic Games (Online Participants) Study. The games in the Game column corresponds to: the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). The resulting payoffs following each decision are shown in parentheses. Questions 1–7 refer to "first-party" scenarios and 8–14 to "third-party" scenarios. For full question wording and details, see experimental instruction appendices corresponding to each study: C.1, C.2.

Table A.7: Belief Questions in the Economic Games (Additional Demographics) Study

"Given that Player 1 received the most points by keeping for themselves, what percentage of Player 1s who {Information 1}, {Information 2}, and {Information 3} do you think chose to keep more?"

Information 1	Information 2		Information 3
were men were women	were aged 18–24 were aged 25–34 were aged 35–44 were aged 45 or over	and	earned less than \$25,000 earned between \$25,000-\$49,999 earned between \$50,000-\$74,999 earned between \$75,000-\$99,999 earned \$100,000 or above

Notes. This table shows the format of the belief questions asked in the Economic Games (Additional Demographics) Study. Beliefs are elicited about the percentage of Player 1s (P1s) choosing the non-socially-oriented option. Each belief question contains one piece of information from columns Information 1–3, and hence there are 40 belief questions resulting from: {2 categories in Information 1} × {4 categories in Information 2} × {5 categories in Information 3}. The order of the three pieces of information are presented in a fixed order for each participant, but randomized across participants. See experimental instructions appendix C.4 for full question wording and details.

X	Non-socially-oriented option	Socially-oriented option
2	keep	give
	(10,0)	(0,2)
4	$\mathbf{keep}$	give
	$(10,\!0)$	(0,4)
6	$\mathbf{keep}$	give
	(10,0)	(0,6)
8	keep	give
	(10,0)	(0,8)
10	$\mathbf{keep}$	give
	(10,0)	(0,10)
20	keep	give
	(10,0)	(0,20)
40	$\mathbf{keep}$	give
	(10,0)	(0,40)
60	keep	give
	(10,0)	(0,60)
80	keep	give
	(10,0)	(0,80)
100	$\mathbf{keep}$	$\mathbf{give}$
	$(10,\!0)$	(0,100)
Panel B:		
"In this decision you can	a choose between the following options":	
2	keep	give
	(10,0)	(0,2)
4	$\mathbf{keep}$	give
	(10,0)	(0,4)
6	keep	give
	(10,0)	(0,6)
8	$\mathbf{keep}$	$\mathbf{give}$
	$(10,\!0)$	(0,8)
10	keep	give
	(10,0)	(0,10)
20	keep	give
	(10,0)	(0,20)
40	keep	give
	(10,0)	(0,40)
60	keep	give
	(10,0)	(0,60)
80	keep	give
	(10,0)	(0,80)
100	keep	give
	(100)	(0, 100)

Table A.8: Decisions and Belief Questions in the Economic Games (Stakes Vary) Study

Panel A:

*Notes.* This table shows the format of the decisions and belief questions asked in the Economic Games (Stakes Vary) Study. Panel A refers to the beliefs part, and Panel B refers to the decisions part. The order of the 10 question pages is randomized. See experimental instructions appendix C.5 for full question wording and details.

	Game	Question
1	DG	When they receive more money by making unfair decisions, what percent of <b>men</b> (women) make unfair decisions?
2	DG- EFF	When they receive more money by maximizing the size of the pot rather than splitting the pot equally, what percent of <b>men (women)</b> choose to maximize the size of the pot?
3	DG- ENT	When they may be a low performer or high performer, what percent of <b>men</b> (women) choose for high performers to be paid more than low performers?
4	UG	When they may receive more money by making unfair decisions but their decisions can be vetoed, what percent of <b>men (women)</b> make unfair decisions?
5	TG	When they may receive more money by distrusting others, what percent of <b>men</b> (women) distrust others?
6	PD	When they receive more money by making uncooperative decisions, what percent of <b>men (women)</b> make uncooperative decisions?
7	PGG	When they receive more money by not contributing to a public good that would benefit everyone, what percent of <b>men (women)</b> do not contribute to a public good?
8	DG	When their decisions do not influence how much money they receive, what per- cent of <b>men (women)</b> make unfair decisions?
9	DG- EFF	When their decisions do not influence how much money they receive, what per- cent of <b>men (women)</b> choose to maximize the size of the pot rather than split the pot equally?
10	DG- ENT	When their decisions do not influence how much money they earn, what percent of <b>men (women)</b> choose for high performers to be paid more than low performers?
11	UG	When their decisions do not influence how much money they receive but their decisions can be vetoed, what percent of <b>men (women)</b> make unfair decisions?
12	TG	When their decisions do not influence how much money they receive, what per- cent of <b>men (women)</b> distrust others?
13	PD	When their decisions do not influence how much money they receive, what per- cent of <b>men (women)</b> make uncooperative decisions?
14	PGG	When their decisions do not influence how much money they receive, what per- cent of <b>men (women)</b> do not contribute to a public good that would benefit everyone?

Table A.9: Scenarios in the Broader Beliefs (Online Participants) Study and Broader Beliefs (Representative Sample) Study

*Notes.* This table shows the question asked about men (women) in each scenario in the Broader Beliefs (Online Participants) Study and the Broader Beliefs (Representative Sample) Study. The games in the Game column corresponds to: the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). See experimental instructions appendices C.6 and C.7 for full question wording and details of the respective studies.

Table A.10: Overview of Conditions in the Interfering Experience Study and the Interfering Experience (Robustness) Study

Condition	Description
Baseline	Participants read about a prior study—the Economic Games (Un- dergraduate Students) Study—and provide incentivized beliefs about women's and men's decisions in the first-party DG in the prior study.
Information Only	Proceeds as the <i>Baseline</i> condition but—before incentivized beliefs about the DG are elicited—participants learn what percent of male and female participants from the prior study gave in the DG-EFF and UG from the prior study scenarios.
Information + Interfering Expe- rience of a Socially- Oriented Man	Proceeds as the <i>Information Only</i> condition but—before incentivized beliefs about the DG are elicited—participants are matched with two "partners" (one woman and one man) in the DG-EFF and UG from the prior study. Participants experience the male partner being socially-oriented to them in one outcome, and the female partner being non-socially-oriented to them in the other outcome.
Information + Interfering Expe- rience of a Socially- Oriented Woman	Proceeds as the <i>Information Only</i> condition but—before incentivized beliefs about the DG are elicited—participants are matched with two "partners" (one woman and one man) in the DG-EFF and UG from the prior study. Participants experience the female partner being socially-oriented to them in one outcome, and the male partner being non-socially-oriented to them in the other outcome.

Notes. This table provides an overview of the four conditions in the Interfering Experience Studies. Participants were paid \$2 as a completion payment plus an additional payment for one outcome that is randomly selected as the outcome-that-counts. In the *Baseline* and *Information Only* conditions, there are two outcomes (one belief question about men and one about women), and participants receive \$2 if they answer the belief question correctly and that belief question is the outcome-that-counts. In the *Information + Interfering Experience of a Socially-Oriented Man* and *Information + Interfering Experience of a Socially-Oriented Man* and *Information + Interfering Experience of a Socially-Oriented Moman* conditions, there are two additional outcomes. The two additional outcomes are two experiences with two "partners" from the prior study: participants receive the amount allocated by their partner if one of the experiences is the outcome-that-counts. The prior study referenced in the table is the Economic Games (Undergraduate Students) Study. Additional details about each condition and the study results can be found in Sections 4.3. See experimental instructions appendices C.10 and C.11 for full question wording and details.

<b>.</b> .	
Scenario	Question
	For each statement, please indicate whether you mostly disagree or mostly agree:
Statement 1	A society should aim to equalize incomes.
Statement 2	The government should take measures to reduce differences in income levels.
Statement 3	All people should be paid equally for the same job regardless of how well they
	do the job.
Statement 4	Spouses should take equal responsibility for the home and family.
Statement 5	Both parents should be equally involved in the upbringing of a child.
Statement 6	All people should have equal access to health care.
Statement 7	All people should have equal access to education.
Statement 8	All people should have equal access to suitable and affordable housing.

Table A.11: The Equality Statements in the Equality Attitudes & Employer Study

Notes. This table shows the eight equality statements in the Equality Attitudes & Employer Study. For each statement, participants are asked to indicate whether they "mostly agree" or "mostly disagree." Statement 1 is derived from Almås, Cappelen and Tungodden (2020), Statement 2 from Luttmer and Singhal (2011), Statement 3 from Kuhn (2011), and Statements 4–7 are loosely based on several questionnaires of the International Social Survey Programme on family and gender (Shukla et al., 2021), healthcare (Ólafsdóttir et al., 2021), and social inequality (Struwig et al., 2019). Statement 8 is not based on previous work but follows the structure of the other statements. The order of the eight statements is randomized. See experimental instructions appendix C.12 for full question wording and details.

Table A.12:	Questions	in	the	Equality	Attitudes	&	Employer	Study
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Scenario	Question
	Among the group of <b>men (women)</b> who complete this study, what percentage do you think mostly agree (rather than mostly disagree) with the following statement:
Statement 1	Society should aim to equalize incomes.
Statement 2	The government should take measures to reduce differences in income levels.
Statement 3	All people should be paid equally for the same job regardless of how well they do the job.
Statement 4	Spouses should take equal responsibility for the home and family.
Statement 5	Both parents should be equally involved in the upbringing of a child.
Statement 6	All people should have equal access to health care.
Statement 7	All people should have equal access to education.
Statement 8	All people should have equal access to suitable and affordable housing.

*Notes.* This table shows the question asked about men (women) in the Equality Attitudes & Employer Study. For each question participants could select "I mostly disagree" or "I mostly agree." Each question is presented on a separate page and the order of pages is randomized. See Appendix Table A.11 for background on these questions. See experimental instructions appendix C.12 for full question wording and details.

Table A.13: Beliefs about Equality Views in the Professional Participants Study

	Question
1	What percent of <b>men (women)</b> think society should aim to equalize incomes?
2	What percent of <b>men (women)</b> think the government should take measures to reduce differences in income levels?
3	What percent of <b>men (women)</b> think all people should be paid equally, rather than according to their performance, for the same job?
4	What percent of <b>men (women)</b> think spouses should take equal responsibility for the home and family?
5	What percent of <b>men (women)</b> think both parents should be equally involved in the upbringing of a child?
6	What percent of <b>men (women)</b> think all people should have equal access to health care?
7	What percent of <b>men (women)</b> think all people should have equal access to education?
8	What percent of <b>men (women)</b> think all people should have equal access to suitable and affordable housing?

Notes. This table shows the questions asked about men (women) in the beliefs about equality views part in the Professional Participants Study. In each belief question, on a slider that ranges from 0% to 100%, participants select a 7-point point range as their answer. Each question is presented on a separate page and the order of pages is randomized. See experimental instructions appendix C.14 for full question wording and details.

Table A.14: "In General" Questions in the Professional Participants Study

## Question

- 1 In general, who do you think is more likely to make generous decisions?
- 2 In general, who do you think is more likely to make decisions that achieve equality?
- 3 In general, who do you think is more likely to favor equal pay over performance pay?

*Notes.* This table shows the questions asked in the beliefs about men and women in general part in the Professional Participants Study. For each question, participants choose one option from one of the following lists: {Women, Neither women nor men, Men} or {Men, Neither men nor women, Women}, which is randomized at the participant level. The order of the three questions is randomized. See experimental instructions appendix C.14 for full question wording and details.

Table A.15: Labor Market Questions in the Professional Participants Study

## Question 1 Women are often *believed* to be more generous than men. Do you think this belief helps or harms women's chances to succeed as leaders in workplaces that are highly competitive? 2 Women are often *believed* to be more generous than men. Do you think this belief helps or harms women's chances to succeed as leaders in workplaces that require cooperation and social skills? Women are often *believed* to be more generous than men. Do you think this belief 3 helps or harms women's chances to be hired in workplaces that are highly competitive? Women are often *believed* to be more generous than men. Do you think this belief 4 helps or harms women's chances to be hired in workplaces that require cooperation and social skills? 5Women are often *believed* to be more equality-oriented than men. Do you think this belief helps or harms women's chances to succeed as leaders in workplaces that are highly competitive? Women are often *believed* to be more equality-oriented than men. Do you think this 6 belief helps or harms women's chances to succeed as leaders in workplaces that require cooperation and social skills? 7 Women are often *believed* to be more equality-oriented than men. Do you think this belief helps or harms women's chances to be hired in workplaces that are highly competitive? Women are often *believed* to be more equality-oriented than men. Do you think this 8 belief helps or harms women's chances to be hired in workplaces that require cooperation and social skills? Notes. This table shows the questions asked in the labor market questions part in the Professional Participants Study. Each question is shown on a separate page and the order of the questions is randomized.

ticipants Study. Each question is shown on a separate page and the order of the questions is randomized. For each question, participants are asked to indicate whether that belief "Helps," "Neither helps nor harms" or "Harms." Whether participants read "helps or harms" or "harms or helps" in each question is fixed within the study, but randomized across participants. See experimental instructions appendix C.14 for full question wording and details.

Scenario	Question
EG1	What percent of <b>men (women)</b> make decisions that achieve equality?
EG2	What percent of <b>men (women)</b> care more about splitting the pot equally than maximizing the size of the pot?
EG3	What percent of <b>men (women)</b> favor equal pay more than performance pay?
EG4	When their decisions can be vetoed, what percent of <b>men (women)</b> try to make decisions that achieve equality?
EG5	When equal outcomes are more likely if one trusts others, but trusting others can also backfire, what percent of <b>men (women)</b> trust others?
EG6	When equal outcomes are more likely if one cooperates with others, what percent of <b>men (women)</b> cooperate with others?
EG7	When equal outcomes are more likely if one contributes to a public good that benefits everyone, what percent of <b>men (women)</b> contribute to a public good?
EG8	What percent of <b>men (women)</b> care about equality?
A1	What percent of <b>men (women)</b> think society should aim to equalize incomes?
A2	What percent of <b>men (women)</b> think the government should take measures to reduce differences in income levels?
A3	What percent of <b>men (women)</b> think all people should be paid equally for the same job regardless of how well they do the job?
A4	What percent of <b>men (women)</b> think spouses should take equal responsibility for the home and family?
A5	What percent of <b>men (women)</b> think both parents should be equally involved in the upbringing of a child?
A6	What percent of <b>men (women)</b> think all people should have equal access to health care?
A7	What percent of <b>men (women)</b> think all people should have equal access to education?
A8	What percent of <b>men (women)</b> think all people should have equal access to suitable and affordable housing?

Table A.16: Questions in the Broader Beliefs (Equality Attitudes) Study

Notes. This table shows the question asked about men (women) in the Broader Beliefs (Equality Attitudes) Study. The question pages labeled EG1-EG7 (Economic Game) loosely correspond with the Player 1 decisions from the Economic Games Studies and the EG8 question page is intended to capture beliefs about equality preferences in general. The question pages labeled A1–A8 (Equality Attitudes Statement) directly correspond with the equality statements 1–8 from the Equality Attitudes & Employer Study. The order of the 16 question pages is randomized. See experimental instructions appendix C.15 for full question wording and details.

Table A.17: Robustness regressions of the believed percent of decision-makers choosing the socially-oriented outcome in the Economic Games Studies

	A 11	<b>TT</b> 7: (1	A				<b>T</b> /
	All	With	Attention	Beliefs	Beliefs	Early	Late
		Controls	Check	First	Second	Beliefs	Beliefs
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pai	nel 1: Un	dergradua	ate Studen	ts, Beliefs	about Fi	rst-Party	Scenarios
$\Delta$	8.61***	8.61***	8.88***	$8.16^{***}$	$9.06^{***}$	$9.15^{***}$	$7.96^{***}$
	(0.42)	(0.42)	(0.43)	(0.60)	(0.60)	(0.59)	(0.61)
Ν	$5,\!348$	$5,\!348$	5,054	$2,\!660$	$2,\!688$	2,938	$2,\!410$
Pa	nel 2: On	line Parti	cipants, Be	eliefs abou	ut First-Pa	arty Scena	arios
$\Delta$	$11.97^{***}$	$11.97^{***}$	$12.10^{***}$	$11.69^{***}$	12.22***	$11.44^{***}$	$12.46^{***}$
	(0.73)	(0.73)	(0.73)	(1.03)	(1.03)	(1.00)	(1.05)
Ν	$5,\!600$	$5,\!600$	$5,\!558$	2,590	$3,\!010$	$2,\!660$	2,940
Pa	nel 3: Un	dergradua	ate Studen	ts, Beliefs	s about Th	nird-Party	Scenarios
$\Delta$	9.03***	9.03***	8.95***	8.96***	9.11***	9.93***	8.30***
	(0.49)	(0.49)	(0.49)	(0.69)	(0.70)	(0.75)	(0.65)
Ν	$5,\!348$	$5,\!348$	$5,\!054$	$2,\!660$	$2,\!688$	$2,\!410$	2,938
Pa	nel 4: On	line Parti	cipants, Be	eliefs abou	ut Third-I	Party Scen	arios
$\Delta$	$10.72^{***}$	$10.72^{***}$	$10.81^{***}$	9.06***	$12.15^{***}$	13.22***	$7.95^{***}$
	(0.74)	(0.74)	(0.74)	(0.96)	(1.10)	(1.16)	(0.85)
Ν	$5,\!600$	$5,\!600$	$5,\!558$	$2,\!590$	$3,\!010$	2,940	$2,\!660$
FE	yes	yes	yes	yes	yes	yes	yes

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in a scenario.  $\Delta$  is an indicator for beliefs about female (rather than male) decision-makers. The fixed effects are indicators for each scenario. Each panel presents belief data when pooling across the noted scenarios (i.e., the first-party Scenarios 1–7 or the third-party Scenarios 8–14, see Table A.5) from the noted subject pool (i.e., with undergraduate students or with online participants). Column 2 presents results when demographic controls are included for: (i) gender, age and whether a participant is an economics major in Panels 1 and 3, and (ii) gender, age and income in Panels 2 and 4. Column 3 restricts to the beliefs provided by participants who pass our attention check (see Footnote 25 for details). Column 4 restricts to beliefs provided by participants are asked 28 belief questions in total, Column 6 restricts to the first 14 belief questions participants are asked and Column 7 restricts to the last 14 belief questions participants are asked.

Game:	All	DG	DG-EFF	DG-ENT	UG	TG	PD	PGG	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Panel 1: Undergraduate Students, Beliefs about First-Party Scenarios									
Frac w/ $B(F) > B(M)$	0.73	0.74	0.70	0.75	0.77	0.75	0.73	0.68	
Frac w/ $B(F) < B(M)$	0.11	0.08	0.10	0.09	0.12	0.10	0.13	0.14	
Frac w/ $B(F) = B(M)$	0.16	0.18	0.20	0.16	0.11	0.15	0.14	0.18	
Ν	$2,\!674$	382	382	382	382	382	382	382	
Panel 2: Online Part	ticipan	ts, Be	liefs abou	t First-Pa	rty Sc	enario	DS		
Frac w/ $B(F) > B(M)$	0.74	0.77	0.76	0.73	0.73	0.73	0.74	0.75	
Frac w/ $B(F) < B(M)$	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
Frac w/ $B(F) = B(M)$	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	
Ν	2,800	400	400	400	400	400	400	400	
Panel 3: Undergradu	iate St	udent	s, Beliefs	about Thi	rd-Pa	rty So	cenari	os	
Frac w/ $B(F) > B(M)$	0.73	0.73	0.71	0.72	0.74	0.75	0.74	0.74	
Frac w/ $B(F) < B(M)$	0.13	0.11	0.15	0.13	0.14	0.13	0.11	0.11	
Frac w/ $B(F) = B(M)$	0.14	0.15	0.14	0.15	0.12	0.12	0.15	0.15	
Ν	$2,\!674$	382	382	382	382	382	382	382	
Panel 4: Online Part	Panel 4: Online Participants, Beliefs about Third-Party Scenarios								
Frac w/ $B(F) > B(M)$	0.72	0.74	0.73	0.69	0.70	0.71	0.73	0.70	
Frac w/ $B(F) < B(M)$	0.18	0.14	0.17	0.17	0.21	0.19	0.16	0.18	
Frac w/ $B(F) = B(M)$	0.11	0.12	0.10	0.14	0.09	0.10	0.10	0.11	
Ν	$2,\!800$	400	400	400	400	400	400	400	

Table A.18: In Economic Games Studies, participant level classification of beliefs

Notes. This table presents results on beliefs from the Economic Games Studies. Frac w/ B(F) > B(M) indicates the fraction of participants who believe the percent of female decision-makers who choose the socially-oriented outcome in a specific scenario is greater than the percent of male decision-makers who choose the socially-oriented outcome in that same scenario. Similar definitions follow for Frac w/ B(F) < B(M) and Frac w/ B(F) = B(M). Column 1 corresponds to the beliefs about decisions made by female and male decision-makers across all games. Columns 2–8 correspond to beliefs about decisions made by female and male decision-makers in the following games (see Table A.4 for more details): the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). Panels 1 and 2 correspond to the beliefs about decisions made in the first-party versions of the noted game, and Panels 3 and 4 to the third-party versions of the noted game. The data are from the Economic Games Studies run with undergraduate students in Panels 1 and 3 and with online participants in Panels 2 and 4. For the belief questions, see Table A.5.

Game:	DG	DG-EFF	DG-ENT	UG	TG	PD	PGG						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)						
Panel 1: Underg	Panel 1: Undergraduate Students, First-Party Scenarios												
B(F) - $Truth(F)$	-0.04	12.85	12.45	-18.64	6.56	9.22	3.24						
B(M) - $Truth(M)$	-8.48	6.97	1.09	-31.77	-0.73	-8.96	-12.33						
$\Delta$	8.44***	$5.88^{***}$	$11.36^{***}$	13.13***	7.30***	$18.18^{***}$	$15.56^{***}$						
	(0.73)	(0.66)	(0.62)	(0.71)	(0.69)	(0.61)	(0.71)						
Ν	764	764	764	764	764	764	764						
Panel 2: Online	Participa	ants, First	-Party Sce	enarios									
B(F) - $Truth(F)$	-16.30	-5.17	0.06	-22.90	1.43	-1.31	-10.21						
B(M) - $Truth(M)$	-15.68	-8.29	-9.71	-35.08	-11.63	-14.64	-16.97						
$\Delta$	-0.63	$3.12^{***}$	$9.77^{***}$	$12.19^{***}$	$13.06^{***}$	$13.34^{***}$	$6.76^{***}$						
	(0.96)	(0.93)	(0.93)	(0.94)	(1.00)	(0.95)	(0.95)						
Ν	800	800	800	800	800	800	800						
Panel 3: Underg	graduate	Students,	Third-Par	ty Scena	rios								
B(F) - $Truth(F)$	-21.29	-18.02	-6.45	-23.36	-15.36	-10.87	-5.42						
B(M) - $Truth(M)$	-28.62	-19.26	-13.30	-37.40	-29.25	-25.45	-29.46						
$\Delta$	$7.34^{***}$	1.24	$6.85^{***}$	$14.04^{***}$	$13.88^{***}$	$14.58^{***}$	$24.04^{***}$						
	(0.81)	(0.87)	(0.71)	(0.72)	(0.76)	(0.74)	(0.71)						
Ν	790	790	790	790	790	790	790						
Panel 4: Online	Participa	ants, Thire	d-Party Sc	cenarios									
B(F) - $Truth(F)$	-28.30	-22.18	-16.93	-27.32	-22.51	-17.84	-23.75						
B(M) - $Truth(M)$	-38.84	-33.00	-26.38	-40.42	-29.02	-28.41	-34.82						
$\Delta$	$10.54^{***}$	$10.82^{***}$	$9.45^{***}$	$13.11^{***}$	$6.51^{***}$	$10.57^{***}$	$11.07^{***}$						
	(1.00)	(0.96)	(0.92)	(0.93)	(1.05)	(0.93)	(0.91)						
N	764	764	764	764	764	764	764						

Table A.19: Results on the accuracy of the beliefs in the Economic Games Studies

Notes. B(F) - Truth(F) is the average believed percent of women who choose the socially-oriented outcome minus the actual percent of women who choose the socially-oriented outcome. B(M) - Truth(M) is the average believed percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome minus the actual percent of men who choose the socially-oriented outcome.  $\Delta$  shows the difference of these differences. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–7 correspond to the accuracy of the beliefs about female and male decision-makers in the following games (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). Panels 1 and 2 correspond to the beliefs about decisions made in the first

	(1)	(2)
B(F)	8.17***	8.17***
	(0.62)	(0.62)
B(age: 25-34)		$0.85^{***}$
		(0.30)
B(age: 35-44)		$1.15^{***}$
		(0.37)
B(age: 45 or over)		$1.64^{***}$
		(0.48)
B(income: $$25,000 - $49,999$ )		5.78***
		(0.58)
B(income: \$50,000 - \$74,999)		13.03***
		(1.07)
B(income: \$75,000 - \$99,999)		15.09***
		(1.33)
B(income: $100,000$ or above)		18.45***
		(1.65)
Constant	42.08***	30.69***
N.	(0.88)	(1.16)
N	16,000	16,000
F'E'	no	yes

Table A.20: Beliefs about the percent of decision-makers choosing the sociallyoriented outcome in the Economic Games (Additional Demographics) Study

Notes. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in the first-party dictator game. B(F) is an indicator for beliefs about female (rather than male) decision-makers. B(age: \*) and B(income: \*) are indicators for beliefs about additional demographics, namely various age and income groups, respectively. This table presents beliefs about participants from a subgroup choosing to give to others—rather than keep for themselves—when pooling across all 40 questions in the Economic Games (Additional Demographics) Study. The constant captures beliefs on males aged 18-24 making less than \$25,000. Standard errors clustered at the participant level at the following levels: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. For the belief questions, see Table A.7.

Income:	<\$25k	\$25-50k	\$50-75k	\$75-100k	100k+						
	(1)	(2)	(3)	(4)	(5)						
Panel 1: A	Panel 1: Age: 18-24 years										
B(F)	38.01	44.39	51.73	53.97	59.10						
B(M)	30.23	35.26	44.52	46.48	48.80						
$\Delta$	7.78***	$9.13^{***}$	$7.20^{***}$	$7.49^{***}$	$10.30^{***}$						
	(1.01)	(1.04)	(1.06)	(1.11)	(1.12)						
Ν	800	800	800	800	800						
Panel 2: A	ge: 25-34 y	ears									
B(F)	39.00	45.47	52.59	54.78	58.30						
B(M)	32.87	38.50	43.90	46.19	49.44						
$\Delta$	$6.13^{***}$	$6.97^{***}$	8.69***	$8.59^{***}$	$8.86^{***}$						
	(1.03)	(1.00)	(0.89)	(1.00)	(1.07)						
Ν	800	800	800	800	800						
Panel 3: A	ge: 35-44 y	ears									
B(F)	40.35	46.20	52.68	54.98	58.47						
B(M)	32.11	38.17	45.03	46.40	49.64						
$\Delta$	$8.24^{***}$	8.02***	$7.65^{***}$	$8.58^{***}$	8.83***						
	(1.14)	(1.00)	(1.00)	(0.94)	(1.02)						
Ν	800	800	800	800	800						
Panel 4: A	ge: 45 year	s or above									
B(F)	40.28	45.89	54.65	55.19	58.90						
B(M)	32.69	37.88	44.68	48.27	50.52						
$\Delta$	7.59***	8.01***	9.97***	$6.92^{***}$	8.39***						
	(1.17)	(0.98)	(0.98)	(1.02)	(0.99)						
N	800	800	800	800	800						

Table A.21: Beliefs about the percent of decision-makers choosing the sociallyoriented outcome in the Economic Games (Additional Demographics) Study

Notes. This table presents results on beliefs for each subgroup separately from the Economic Games (Additional Demographics) Study. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in the first-party dictator game. B(F) and B(M) show the average believed percent of female and male decision-makers who choose the socially-oriented outcome, and  $\Delta$  shows the difference in these percentages. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. For the belief questions, see Table A.7.

				10 for se	If or $X$ for	or other,	X equals	:		
	2	4	6	8	10	20	40	60	80	100
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
D(F)	0.19	0.21	0.18	0.17	0.22	0.34	0.42	0.45	0.49	0.52
D(M)	0.22	0.17	0.18	0.14	0.16	0.39	0.49	0.54	0.56	0.58
$\Delta$	-0.02	0.04	-0.00	0.02	$0.07^{*}$	-0.04	-0.07	-0.10**	-0.07	-0.06
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Ν	400	400	400	400	400	400	400	400	400	400

Table A.22: Rate of choosing the socially-oriented outcome in the Economic Games (Stakes Vary) Study

Notes. This table presents decision results from the Economic Games (Stakes Vary) Study at various stake levels. Each column presents results at various levels of X which range from 2 (Column 1) to 100 (Column 10). D(F) and D(M) show the rates at which female and male decision-makers choose the socially-oriented outcome for a given X,  $\Delta$  shows the difference in these rates. SEs are shown in parentheses. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. For the decision questions, see Panel B of Table A.8.

Table A.23: Beliefs about the percent of decision-makers choosing the socially-oriented outcome in the Economic Games (Stakes Vary) Study

				10 for sel	f or $X$ fo	or other, .	X equals:			
	2	4	6	8	10	20	40	60	80	100
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
B(F)	32.38	33.26	33.46	34.56	35.28	38.78	38.62	40.58	41.36	42.86
B(M)	27.96	27.88	28.38	28.89	28.45	31.37	32.23	33.90	34.00	36.44
$\Delta$	$4.42^{***}$	$5.38^{***}$	$5.09^{***}$	$5.66^{***}$	$6.84^{***}$	$7.42^{***}$	$6.40^{***}$	$6.68^{***}$	7.36***	$6.42^{***}$
	(0.84)	(0.68)	(0.71)	(0.71)	(0.70)	(0.74)	(0.77)	(0.76)	(0.82)	(0.71)
Ν	800	800	800	800	800	800	800	800	800	800

Notes. This table presents beliefs about decisions made by female and male decision-makers from the Economic Games (Stakes Vary) Study at various stake levels. Each column presents results at various levels of X which range from 2 (Column 1) to 100 (Column 10). B(F) and B(M) show the average believed percent of female and male decision-makers who choose to give for a given X, and  $\Delta$  shows the difference in these percentages. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. For the belief questions, see Panel A of Table A.8.

Table A.24: Broader beliefs about the percent of decision-makers favoring the sociallyoriented outcome in the Broader Beliefs (Online Participants) Study and in the Broader Beliefs (Representative Sample) Study

Game:	DG	DG-EFF	DG-ENT	UG	TG	PD	PGG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel 1:	Online P	articipants	, Beliefs al	oout First	-Party Sc	enarios	
B(F)	45.74	37.30	33.20	53.82	36.07	45.53	49.85
B(M)	32.39	26.26	25.29	40.84	29.21	32.06	37.42
$\Delta$	$13.35^{***}$	$11.05^{***}$	7.91***	$12.98^{***}$	$6.86^{***}$	$13.47^{***}$	$12.42^{***}$
	(0.94)	(0.87)	(0.73)	(0.85)	(0.87)	(0.92)	(0.91)
Ν	798	798	798	798	798	798	798
Panel 2:	Represen	tative Sam	ple, Belief	's about F	'irst-Party	Scenarios	5
B(F)	46.22	39.89	35.54	47.99	40.46	44.49	47.05
B(M)	37.95	33.04	32.14	41.91	37.30	37.29	41.02
$\Delta$	$8.26^{***}$	$6.85^{***}$	$3.40^{***}$	$6.08^{***}$	$3.16^{***}$	$7.20^{***}$	$6.03^{***}$
	(0.69)	(0.72)	(0.66)	(0.70)	(0.69)	(0.69)	(0.70)
Ν	2,002	2,002	2,002	2,002	2,002	2,002	2,002
Panel 3:	Online P	articipants	, Beliefs at	oout Thir	d-Party Se	cenarios	
B(F)	65.05	53.53	34.50	66.86	52.81	66.75	62.34
B(M)	55.94	41.85	26.10	58.15	49.15	56.12	52.97
$\Delta$	9.11***	$11.69^{***}$	$8.40^{***}$	$8.71^{***}$	$3.66^{***}$	$10.63^{***}$	$9.36^{***}$
	(0.79)	(0.98)	(0.76)	(0.78)	(0.97)	(0.88)	(0.93)
Ν	798	798	798	798	798	798	798
Panel 4:	Represen	tative Sam	ple, Belief	's about T	hird-Part	y Scenario	os
B(F)	51.54	44.15	37.18	51.59	45.11	51.18	49.71
B(M)	46.59	38.28	32.97	46.87	43.51	44.83	45.57
$\Delta$	$4.95^{***}$	$5.87^{***}$	$4.21^{***}$	$4.72^{***}$	$1.60^{**}$	$6.35^{***}$	$4.14^{***}$
	(0.68)	(0.72)	(0.63)	(0.65)	(0.71)	(0.69)	(0.68)
N	2,002	2,002	2,002	2,002	2,002	2,002	2,002

Notes. This table presents results on beliefs from the Broader Beliefs (Online Participants) Study and the Broader Beliefs (Representative Sample) Study, which includes data from online participants in Study 3 and a representative sample recruited by Dynata in Study 4. B(F) indicates the average belief provided by participants when they are asked to predict the percent of female decision-makers who choose socially-oriented outcome, B(M) indicates the average belief provided by participants when they are asked to predict the percent of male decision-makers who choose the socially-oriented outcome, and  $\Delta$  shows the difference in these beliefs and whether this difference is statistically significant at the following levels according to an OLS of the percent belief on the gender of the decision-maker with standard errors clustered at the participant level: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–7 correspond to broader beliefs about female and male decision-makers that loosely correspond to the decisions in the following games (see Table A.9 for the list of broader belief questions): the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). Panels 1 and 2 correspond to the broader beliefs about decisions made in the first-party version of the noted game, and Panels 3 and 4 to broader beliefs about decisions made in the third-party version of the noted game.
Game:	DG	DG-EFF	DG-ENT	UG	TG	PD	PGG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel 1:	First-Par	ty Scenario	DS				
B(F)	40.07	36.20	34.66	50.82	40.24	41.98	42.93
B(M)	28.25	25.79	26.13	42.56	29.14	30.80	30.73
$\Delta$	$11.82^{***}$	$10.41^{***}$	8.53***	$8.26^{***}$	$11.10^{***}$	$11.18^{***}$	12.20***
	(1.08)	(1.02)	(1.05)	(1.23)	(1.22)	(1.23)	(1.26)
Ν	798	798	798	798	798	798	798
Panel 2:	Third-Pa	rty Scenar	ios				
B(F)	58.55	55.07	48.14	61.65	54.55	53.21	55.28
B(M)	46.12	43.66	38.52	52.47	45.04	44.87	45.09
$\Delta$	$12.44^{***}$	$11.41^{***}$	9.62***	9.19***	$9.51^{***}$	8.34***	$10.20^{***}$
	(1.30)	(1.33)	(1.26)	(1.15)	(1.31)	(1.19)	(1.29)
Ν	798	798	798	798	798	798	798

Table A.25: Beliefs about the percent of decision-makers choosing the socially-oriented outcome in the Economic Games (Beliefs Only) Study

Notes. This table presents results on beliefs from the Economic Games (Beliefs Only) Study. B(F) indicates the average belief provided by participants when they are asked to predict the percent of female decision-makers who choose the socially-oriented outcome, B(M) indicates the average belief provided by participants when they are asked to predict the percent of male decision-makers who choose the socially-oriented outcome, and  $\Delta$  shows the difference in these beliefs and whether this difference is statistically significant at the following levels according to an OLS of the percent belief on the gender of the decision-maker with standard errors clustered at the participant level: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–7 correspond to beliefs about decisions made by female and male decision-makers in the following games (see Table A.4 for more details): the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). Panel 1 corresponds to the beliefs about decisions made in the first-party versions of the noted game, and Panel 2 to the third-party versions of the noted game.

	Women (1)	Men (2)	All (3)	Women (4)	Men (5)	All (6)	All (7)	All (8)
Δ	$9.60^{***}$	(-) 7.39*** (0.59)	$7.45^{***}$	(-7) 8.54*** (0.65)	$6.97^{***}$	$6.41^{***}$	$6.22^{***}$	$\frac{(3)}{5.77^{***}}$
Female	(0.00)	(0.00)	-8.93***	(0.00)	(0.01)	(1.20)	(0.51)	(0.02)
$\Delta^*$ Female			(1.41) $2.15^{**}$ (0.84)					
Socially-Oriented			( )	8.97***	17.80***			
$\Delta^*$ Socially-Oriented				(1.36) $3.37^{***}$ (0.88)	(2.14) 1.22 (0.95)			
Women nicer				( )	× /	-2.90		
$\Delta^*$ Women nicer						(2.51) $2.45^{*}$ (1.31)		
Men more selfish							-0.89	
$\Delta^* \mathrm{Men}$ more selfish							(1.80) $2.72^{***}$ (1.02)	
Women fairer							~ /	-3.86**
$\Delta^*$ Women fairer								(1.86) $3.38^{***}$ (0.95)
Ν	$2,\!898$	$2,\!436$	$5,\!348$	2,898	$2,\!436$	$5,\!348$	$5,\!348$	5,348
FE	yes	yes	yes	yes	yes	yes	yes	yes

Table A.26: Heterogeneity regressions of the believed percent of decision-makers choosing the socially-oriented outcome in the first-party scenarios of the Economic Games (Undergraduate Students) Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents belief data when pooling across the first-party Scenarios 1–7 from the Economic Games Study run with undergraduate students. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in a scenario.  $\Delta$  is an indicator for beliefs about female (rather than male) decisionmakers. *Female* is an indicator for the participant providing the beliefs being a female. *Socially-Oriented* is an indicator for the participant providing the beliefs having chosen the socially-oriented outcome when they are the decision-maker in the relevant scenario. *Women nicer, Men more selfish*, and *Women fairer* are indicators for selecting—when asked to make a binary choice between men and women—that women are nicer, men are more selfish, and women are fairer in the follow-up survey. The fixed effects are indicators for each scenario. Columns 1 & 4, 2 & 5, and 3 & 6–8 restrict to beliefs provided by women, men, and all participants, respectively. For the belief questions, see Panel A in Table A.5.

	Women (1)	Men (2)	All (3)	Women (4)	Men (5)	All (6)	All (7)	All (8)
Δ	$9.98^{***}$	(-) $7.88^{***}$ (0.70)	$7.92^{***}$	$9.20^{***}$	$7.28^{***}$	(0) 5.19*** (1.31)	(1.14)	$\frac{(0)}{6.77^{***}}$
Female	(0.05)	(0.10)	$-7.15^{***}$	(1.10)	(0.33)	(1.01)	(1.14)	(1.41)
$\Delta^*$ Female			(1.97) $2.06^{**}$ (0.97)					
Socially-Oriented			~ /	14.03***	16.96***			
$\Delta^*$ Socially-Oriented				(1.93) 1.22 (1.27)	(2.23) 0.90 (1.08)			
Women nicer				()	()	0.80		
$\Delta^*$ Women nicer						(3.54) $4.26^{***}$ (1.41)		
Men more selfish						. ,	-2.43	
$\Delta^* \mathrm{Men}$ more selfish							(3.29) $5.12^{***}$ (1.26)	
Women fairer								-3.52
$\Delta^*$ Women fairer								(2.81) $2.68^{*}$ (1.50)
N	$2,\!898$	2,436	$5,\!348$	$2,\!898$	$2,\!436$	$5,\!348$	$5,\!348$	5,348
<u> </u>	yes	yes	yes	yes	yes	yes	yes	yes

Table A.27: Heterogeneity regressions of the believed percent of decision-makers choosing the socially-oriented outcome in the third-party scenarios of the Economic Games (Undergraduate Students) Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents belief data when pooling across the third-party Scenarios 8–14 from the Economic Games Study run with undergraduates students. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in a scenario.  $\Delta$  is an indicator for beliefs about female (rather than male) decision-makers. *Female* is an indicator for the participant providing the beliefs being a female. *Socially-Oriented* is an indicator for the participant providing the beliefs having chosen the socially-oriented outcome when they are the decision-maker in the relevant scenario. *Women nicer, Men more selfish*, and *Women fairer* are indicators for selecting—when asked to make a binary choice between men and women—that women are nicer, men are more selfish, and women are fairer in the follow-up survey. The fixed effects are indicators for each scenario. Columns 1 & 4, 2 & 5, and 3 & 6–8 restrict to beliefs provided by women, men, and all participants, respectively. For the belief questions, see Panel B in Table A.5.

	Women (1)	Men (2)	All (3)	Women (4)	$\frac{\mathrm{Men}}{(5)}$	All (6)	All (7)	All (8)
Δ	$\overline{13.04^{***}}$	$10.65^{***}$	$\overline{10.72^{***}}$	9.12***	$\frac{(7)}{11.42^{***}}$	$11.97^{***}$	$\frac{()}{11.97^{***}}$	$11.97^{***}$
Female	(1.03)	(1.03)	(1.02) -5.27***	(1.09)	(1.14)	(0.05)	(0.05)	(0.00)
$\Delta^*$ Female			(1.65) 2.32 (1.45)					
Socially-Oriented			( - )	$9.42^{***}$	16.31***			
$\Delta^*$ Socially-Oriented				(1.70) $7.50^{***}$ (1.62)	(2.04) -1.57 (1.74)			
Women more altruistic				(1.0-)	(111)	-1.23***		
$\Delta^* \text{Women}$ more altruistic						(0.29) $2.83^{***}$ (0.35)		
Women more charitable						( )	-1.22***	
$\Delta^*$ Women more charitable							(0.27) $2.52^{***}$ (0.31)	
Women fairer								$-1.29^{***}$
$\Delta^*$ Women fairer								(0.33) $2.85^{***}$ (0.37)
Ν	3,024	2,520	$5,\!600$	$3,\!024$	2,520	$5,\!600$	$5,\!600$	5,600
FE	yes	yes	yes	yes	yes	yes	yes	yes

Table A.28: Heterogeneity regressions of the believed percent of decision-makers choosing the socially-oriented outcome in the first-party scenarios of the Economic Games (Online Participants) Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents belief data when pooling across the first-party Scenarios 1–7 from the Economic Games Study run with online participants. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in a scenario.  $\Delta$  is an indicator for beliefs about female (rather than male) decision-makers. *Female* is an indicator for the participant providing the beliefs being a female. *Socially-Oriented* is an indicator for the participant providing the beliefs having chosen the socially-oriented outcome when they are the decision-maker in the relevant scenario. *Women more altruistic, Women more charitable,* and *Women fairer* reflect the demeaned difference between the ratings given to women and men—on a 1 (completely unwilling) to 10 (completely willing) scale—when asked about their willingness to "be altruistic", to "share with others without expecting anything in return when it comes to charity", or "be fair" in the follow-up survey, respectively. The fixed effects are indicators for each scenario. Columns 1 & 4, 2 & 5, and 3 & 6–8 restrict to beliefs provided by women, men, and all participants, respectively. For the belief questions, see Panel A in Table A.5.

	Women (1)	Men (2)	All (3)	Women (4)	$\frac{\mathrm{Men}}{(5)}$	All (6)	All (7)	All (8)
Δ	$11.71^{***}$	$9.40^{***}$	$9.56^{***}$	$5.96^{***}$	$9.12^{***}$	$10.72^{***}$	$\frac{()}{10.72^{***}}$	$10.72^{***}$
Female	(1.03)	(1.05)	-7.20***	(1.72)	(1.55)	(0.08)	(0.09)	(0.09)
$\Delta^*$ Female			(1.86) 2.15 (1.47)					
Socially-Oriented				8.54***	15.29***			
$\Delta^*$ Socially-Oriented				(1.97) $7.79^{***}$ (1.84)	(2.12) 0.38 (1.69)			
Women more altruistic				()	()	-0.91**		
$\Delta^* \text{Women}$ more altruistic						(0.36) $2.51^{***}$ (0.39)		
Women more charitable						( )	-0.98***	
$\Delta^*$ Women more charitable							(0.31) $2.04^{***}$ (0.30)	
Women fairer								$-1.30^{***}$
$\Delta^*$ Women fairer								(0.41) $2.55^{***}$ (0.39)
Ν	$3,\!024$	2,520	$5,\!600$	$3,\!024$	2,520	$5,\!600$	$5,\!600$	5,600
FE	yes	yes	yes	yes	yes	yes	yes	yes

Table A.29: Heterogeneity regressions of the believed percent of decision-makers choosing the socially-oriented outcome in the third-party scenarios of the Economic Games (Online Participants) Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents belief data when pooling across the third-party Scenarios 8–14 from the Economic Games Study run with online participants. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in a scenario.  $\Delta$  is an indicator for beliefs about female (rather than male) decision-makers. *Female* is an indicator for the participant providing the beliefs being a female. *Socially-Oriented* is an indicator for the participant providing the beliefs having chosen the socially-oriented outcome when they are the decision-maker in the relevant scenario. *Women more altruistic, Women more charitable,* and *Women fairer* reflect the demeaned difference between the ratings given to women and men—on a 1 (completely unwilling) to 10 (completely willing) scale—when asked about their willingness to "be altruistic", to "share with others without expecting anything in return when it comes to charity", or "be fair" in the follow-up survey, respectively. The fixed effects are indicators for each scenario. Columns 1 & 4, 2 & 5, and 3 & 6–8 restrict to beliefs provided by women, men, and all participants, respectively. For the belief questions, see Panel B in Table A.5.

	Do Not Recall a Woman (1)	Recalled Woman (2)	All (3)
$\Delta$	10.45***	16.08***	10.45***
	(1.55)	(1.05)	(1.54)
Recalled a woman			-0.79
			(2.16)
$\Delta^*$ Recalled a woman			$5.62^{***}$
			(1.87)
Constant	32.41***	31.62***	32.41***
	(1.86)	(1.11)	(1.85)
Ν	274	524	798

Table A.30: Beliefs about the percent of decision-makers choosing the sociallyoriented outcome in the first-party dictator game of the Recalled Person Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents belief data from the Recalled Person Study. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in the first-part dictator game. Columns 1 and 2 restrict to the set of participants who do not recall a woman and who do recall a woman, respectively, when asked to think of a specific person who is likely to give to others. Column 3 includes all participants.  $\Delta$  is an indicator for beliefs about female (rather than male) decision-makers. *Recalled a woman* is an indicator for participants who recalled a woman when asked to think of a specific person who is likely to give to others.

	During chi	During childhood, cared for more by:							
	Men (1)	Neither (2)	Women (3)	$\begin{array}{c} \text{All} \\ (4) \end{array}$					
B(F)	10.63***	10.97***	14.72***	10.91***					
<i>,</i> ,	(3.30)	(1.67)	(1.13)	(1.49)					
T(W>M)				-4.28**					
$B(F)^* T(W{>}M)$				(1.91) $3.80^{**}$ (1.87)					
Constant	48.96***	46.75***	42.85***	47.13***					
	(3.76)	(1.59)	(1.23)	(1.46)					
Ν	54	266	480	800					

Table A.31: Beliefs about the percent of decision-makers choosing the sociallyoriented outcome in the Recalled Experience Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents belief data from the Recalled Experience Study. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in the first-part dictator game. B(F) is an indicator for beliefs about female (rather than male) decision-makers. Column 1 restricts to participants who recall being cared for more by men during childhood, Column 2 restricts to participants who recall being cared for approximately an equal amount of time by men and women during childhood, and Column 3 restricts to participants who recall being cared for more by women during childhood. T(W>M) is an indicator for this last group of participants in Column 3. These groups are determined according to how participants answer the following two questions on a 1 ("None at all") to 5 ("A great deal") point scale: (1) "During your childhood, how much time did you spend with your mom and/or other women who raised you?" (2) "During your childhood, how much time did you spend with your dad and/or other men who raised you?"

Panel	1:						
	Indicated	level of a	greement v	with follow	ving staten	nent on a (	1-7) scale
	"I ha	ave experie	enced wom	en being i	more gener	ous than i	nen"
	1	$2^{-}$	3	4	5	6	7
B(F)	58.00	52.54	45.91	52.80	56.39	61.18	62.00
B(M)	64.00	55.38	49.32	50.88	43.84	41.50	41.07
$\Delta$	-6.00	-2.85	-3.41	1.92	$12.54^{***}$	19.68***	20.93***
	(5.27)	(3.31)	(3.80)	(1.75)	(1.57)	(1.58)	(1.81)
Ν	10	26	44	120	192	270	138
Panel	2:						
	Indicated	level of a	greement v	with follow	ving staten	nent on a (	1-7) scale
	"I have e	xperienced	women ca	aring more	e about equ	ality than	men"
B(F)		59.82	60.05	53.98	54.76	59.98	59.53
B(M)		59.09	52.35	44.83	43.29	44.51	42.31
$\Delta$		0.73	$7.70^{**}$	$9.15^{***}$	$11.47^{***}$	$15.47^{***}$	$17.22^{***}$
		(3.83)	(3.54)	(2.52)	(1.69)	(1.59)	(2.05)
Ν	0	22	40	106	178	268	180

Table A.32: Beliefs about the percent of decision-makers choosing the socially-oriented outcome in the Recalled Experience Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents belief data from the Recalled Experience Study. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in the first-part dictator game. B(F) and B(M) show the average believed percent of female and male decision-makers who choose the socially-oriented outcome,  $\Delta$  shows the difference in these percentages. In Panel 1, each column restricts to the set of participants with the response noted in the column header to the following statement: "Over the course of my life, I have experienced women being more generous than men" on a 1 (strongly disagree) to 7 (strongly agree) scale. In Panel 2, each column restricts to the set of participants with the response noted in the column header: "Over the course of my life, I have experienced women caring more about equality than men" on a 1 (strongly disagree) to 7 (strongly agree) scale.

			Information + In	terfering Experience of:
	Baseline	Information Only	Socially- Oriented Man	Socially-Oriented Woman
	(1)	$(2)^{\circ}$	(3)	(4)
B(F)	55.85	44.31	39.87	42.17
B(M)	43.59	41.72	40.99	35.72
$\Delta$	$12.25^{***}$	$2.59^{***}$	-1.12	$6.45^{***}$
	(0.94)	(0.51)	(0.77)	(0.83)
Ν	828	784	778	806

Table A.33: Regressions of the believed percent of decision-makers choosing the sociallyoriented outcome in the first-party dictator game of the Interfering Experience (Robustness) Study by condition

Notes. This table presents belief data from the Interfering Experience (Robustness) Study. B(F) and B(M) show the average believed percent of female and male decision-makers who choose the socially-oriented outcome in the dictator game,  $\Delta$  shows the difference in these percentages. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–4 correspond to the beliefs in the *Baseline* condition, *Information Only* condition, *Information + Interfering Experience of a Socially-Oriented Man* condition, and *Information + Interfering Experience of a Socially-Oriented Woman* conditions, respectively. The different conditions are explained in Table A.10.

Statement	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
D(F)	0.70	0.76	0.33	0.98	0.99	0.97	0.98	0.97
D(M)	0.60	0.72	0.32	0.98	0.98	0.96	0.98	0.94
$\Delta$	$0.11^{**}$	0.04	0.00	0.00	0.02	0.01	0.00	0.03
	(0.05)	(0.04)	(0.05)	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)
Ν	393	393	393	393	393	393	393	393

Table A.34: Agreement with equality statements in the Equality Attitudes & Employer Study

Notes. This table shows the rate of agreement with the eight equality statements in the Equality Attitudes & Employer Study. D(F) and D(M) show the rates at which female and male participants indicate they mostly agree with the equality statement, and  $\Delta$  shows the difference in these rates. SEs are shown in parentheses. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–8 correspond to the equality statements 1–8 detailed in Table A.11. The data are from the Equality Attitudes & Employer Study (excluding 7 participants who did not select male or female as their gender).

Table A.35: Beliefs about the percent of participants indicating agreement with equality statements in the Equality Attitudes & Employer Study

Statement	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
B(F)	71.44	67.39	52.88	79.03	84.02	79.77	83.12	76.55
B(M)	50.99	49.41	39.14	58.03	69.70	69.25	75.31	66.56
$\Delta$	$20.45^{***}$	$17.98^{***}$	$13.74^{***}$	21.00***	$14.33^{***}$	$10.52^{***}$	$7.81^{***}$	9.99***
	(0.81)	(0.75)	(0.75)	(0.93)	(0.80)	(0.55)	(0.49)	(0.53)
Ν	800	800	800	800	800	800	800	800

Notes. This table shows the rate of believed agreement with the eight equality statements in the Equality Attitudes & Employer Study. B(F) and B(M) show the average believed percent of female and male participants who indicate agreement with the equality statement, and  $\Delta$  shows the difference in these percentages. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–8 correspond to the beliefs about equality statements 1–8 shown in Appendix Table A.11.

Table A.36: Robustness regressions of the believed percent of decision-makers favoring equality in the Equality Attitudes & Employer Study

	All	With	Attention	Beliefs	Beliefs	Early	Late
		Controls	Check	First	Second	Beliefs	Beliefs
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$\Delta$	14.48***	14.48***	14.48***	13.02***	15.65***	14.27***	14.65***
	(0.47)	(0.48)	(0.48)	(0.67)	(0.66)	(0.62)	(0.70)
Ν	$6,\!400$	6,400	$6,\!384$	2,864	$3,\!536$	2,928	$3,\!472$
FE	yes	yes	yes	yes	yes	yes	yes

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents beliefs about equality statements when pooling across all equality statements in the Equality Attitudes & Employer Study. Results are from an OLS of the believed percent of female or male participants who indicate agreement with an equality statement.  $\Delta$  is an indicator for beliefs about female (rather than male) participants. The fixed effects are indicators for each statement. Column 1 presents the primary results including all participants. Column 2 presents results when demographic controls are included for gender, age and income. Column 3 restricts to the beliefs provided by participants who pass our attention check (see Footnote 25 for details). Column 4 restricts to beliefs provided by participants who provide beliefs after they answer the equality statements. Since participants also provide beliefs about employers in a different part of the study, Column 6 restricts to participants who are first asked to provide beliefs about equality statements and Column 7 restricts to participants are detailed in Table A.11.

Table A.37: In Equality Attitudes & Employer Study, participant level classification of beliefs

				Equ	ality S	Statem	lent		
	All	1	2	3	4	5	6	7	8
Frac w/ $B(F) > B(M)$	0.84	0.92	0.92	0.84	0.88	0.80	0.80	0.74	0.81
Frac w/ $B(F) = B(M)$	0.09	0.04	0.04	0.07	0.05	0.12	0.14	0.17	0.13
Frac w/ $B(F) < B(M)$	0.07	0.05	0.04	0.09	0.07	0.08	0.07	0.09	0.07
Ν	$3,\!200$	400	400	400	400	400	400	400	400

Notes. This table presents results on beliefs about the eight equality statements from the Equality Attitudes & Employer Study. Frac w/ B(F) > B(M) indicates the fraction of participants who believe the percent of women who favor equality is greater than the percent of mem who favor equality. Similar definitions follow for Frac w/ B(F) = B(M) and Frac w/ B(F) < B(M). The All Column presents beliefs when pooling across all equality statements. Columns 1–8 correspond to the equality statements 1–8 detailed in Table A.11. The data are from the Equality Attitudes & Employer Study.

	Women (1)	Men (2)	All (3)	Women (4)	$\frac{Men}{(5)}$
Δ	$\overline{17.42^{***}}$	$\overline{11.54^{***}}$	$11.76^{***}$	$\overline{18.24^{***}}$	$\overline{13.36^{***}}$
Female	(0.07)	(0.02)	(0.02) $-3.90^{***}$	(1.29)	(1.03)
$\Delta^*$ Female			(1.23) $5.66^{***}$		
Favors Equality			(0.91)	16.15***	16.56***
$\Delta^*$ Favors Equality				(1.74) -0.98	(1.82) -2.26**
N	3 079	3 916	6 400	(1.29)	(1.07)
FE	yes	yes	yes	yes	yes

Table A.38: Heterogeneity regressions of the believed percent of participants favoring equality in the Equality Attitudes & Employer Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents beliefs about equality statements when pooling across all equality statements in the Equality Attitudes & Employer Study. Results are from an OLS of the believed percent of female or male decision-makers who choose the socially-oriented outcome in a scenario.  $\Delta$  is an indicator for beliefs about female (rather than male) decision-makers. *Female* is an indicator for the participant providing the beliefs being a female. *Favors Equality* is an indicator for the participant indicating that they favor equality in the relevant statement. Columns 1 & 4, 2 & 5, and 3 restrict to beliefs provided by women, men, and all participants, respectively. The equality statements are detailed in Table A.11.

Table A.39: Results on the accuracy of the beliefs about equality statements in the Equality Attitudes & Employer Study

Equality Statement	1	2	3	4	5	6	7	8
Equality Statement								
B(F)-Truth(F)	1.12	-8.65	20.07	-19.41	-15.46	-17.62	-15.31	-20.32
B(M)-Truth(M)	-8.71	-22.23	6.80	-39.98	-27.82	-26.77	-22.69	-27.46
$\Delta$	$9.84^{***}$	$13.58^{***}$	$13.26^{***}$	$20.57^{***}$	$12.36^{***}$	$9.14^{***}$	$7.38^{***}$	$7.14^{***}$
	(0.81)	(0.75)	(0.75)	(0.93)	(0.80)	(0.55)	(0.49)	(0.53)
Ν	800	800	800	800	800	800	800	800

Notes. This table presents the accuracy of beliefs about equality statements in the Equality Attitudes & Employer Study. B(F)–Truth(F) is the average believed percent of women who favor equality minus the actual percent of women who favor equality. B(M)–Truth(M) is the average believed percent of men who favor equality minus the actual percent of men who favor equality.  $\Delta$  shows the difference of these differences. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–8 correspond to the equality statements 1–8 detailed in Table A.11. The data are from the Equality Attitudes & Employer Study.

Table A.40: Robustness regressions of the believed percent of employers choosing Equal Pay in the Equality Attitudes & Employer Study

	A 11	With	Attention	Beliefs	Beliefs	Early	Late
	All	Controls	Check	First	Second	Beliefs	Beliefs
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$\Delta$	19.79***	19.79***	19.74***	18.53***	21.13***	21.66***	17.57***
	(0.83)	(0.84)	(0.83)	(1.25)	(1.08)	(1.24)	(1.05)
Constant	$51.79^{***}$	$56.21^{***}$	51.83***	$52.50^{***}$	$51.05^{***}$	$48.73^{***}$	$55.43^{***}$
	(0.96)	(2.75)	(0.96)	(1.40)	(1.30)	(1.29)	(1.39)
Ν	800	800	798	412	388	434	366

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents beliefs about the employer decisions in the Equality Attitudes & Employer Study. Results are from an OLS of the believed percent of female or male employers who choose equal pay.  $\Delta$  is an indicator for beliefs about female (rather than male) participants. Specifically participants are asked "Among the group of male (female) employers who complete this study, what percentage do you think choose to pay workers equally?" Column 1 presents beliefs about employer decisions for all participants. Column 2 presents results when demographic controls are included for gender, age and income. Column 3 restricts to the beliefs provided by participants who pass our attention check (see Footnote 25 for details). Column 4 restricts to beliefs provided by participants who provide beliefs after they make decisions as employers. Since participants also provide beliefs about equality statements in a different part of the study, Column 6 restricts to participants who are first asked to provide beliefs about employers and Column 7 restricts to participants who are first asked to provide beliefs about equality statements.

	Women	Men	All	Women	Men
	(1)	(2)	(3)	(4)	(5)
$\Delta$	23.79***	$16.12^{***}$	16.10***	21.29***	18.31***
	(1.21)	(1.12)	(1.08)	(2.20)	(2.13)
Female			-5.11***	( )	
			(1.91)		
$\Delta^*$ Female			7.70***		
			(1.62)		
Equal pay			× /	5.06	7.70***
				(3.08)	(2.75)
$\Delta^*$ Equal Pay				3.50	-3.21
1 0				(2.63)	(2.49)
Constant	49.14***	$54.08^{***}$	54.25***	45.53***	48.83***
	(1.40)	(1.32)	(1.29)	(2.60)	(2.23)
Ν	384	402	800	384	402

Table A.41: Heterogeneity regressions of the believed percent of employers choosing equal pay in the Equality Attitudes & Employer Study

Notes. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. SEs are clustered at the participant level. This table presents beliefs about the employer decisions in the Equality Attitudes & Employer Study. Results are from an OLS of the believed percent of female or male employers who choose equal pay. Specifically participants are asked "Among the group of male (female) employers who complete this study, what percentage do you think choose to pay workers equally?"  $\Delta$  is an indicator for beliefs about female (rather than male) employers. *Female* is an indicator for the participant providing the beliefs being a female. *Equal Pay* is an indicator for the participant choosing equal pay when they make decisions as an employer. Columns 1 & 4, 2 & 5, and 3 restrict to beliefs provided by women, men, and all participants, respectively.

	Study sample $(\%)$	Population $(\%)$
Gender		
Male	49.3	48.7
Female	50.6	51.3
Age		
18 to 24 years	12.6	12.2
25 to $34$ years	17.2	17.9
$\overline{35}$ to $44$ years	18.1	16.3
45 to $54$ years	15.7	16.7
55 to $64$ years	16.1	16.6
65 years and over	20.4	20.2
Household income in 2020		
\$14,999 or less	9.8	10.3
\$15,000 to \$24,999	9.8	8.9
\$25,000 to \$49,999	21.2	21.2
\$50,000 to \$74,999	17.0	17.2
\$75,000 to \$99,999	13.1	12.7
\$100,000 to \$149,999	15.1	15.1
\$150,000 to \$199,999	6.7	6.8
\$200,000 or more	7.4	7.7

Table A.42: Representative population sample and nationally representative characteristics

Notes. Following Snowberg and Yariv (2021), we partnered with Dynata to recruit a nationally representative sample along three demographic categories: gender, age, and income. Dynata was previously known as "Research Now" or "Survey Sampling International", two independent global survey firms that were merged and renamed to Dynata in 2019. The first column shows the percentage of participants recruited in the Broader Beliefs (Representative Sample) Study according to each of these demographic categories, while the second column shows the target percentages. To obtain nationally representative target percentages, we used the American Community Survey (ACS) estimates from 2019. See ACS Table DP05 rows 27-28 for the gender estimates. See ACS Table DP03 rows 57-66 for the income estimates and note that we collapsed some buckets to match the income buckets available for Dynata participants. See Table DP05 for the age estimates. To recruit this sample, we provided Dynata with these target demographics, and they then recruited their participants through generic email invitations containing the survey URL and no information regarding the nature of the study. We paid \$2.45 per participant recruited from Dynata as part of our representative sample, and the compensation given to these participants by Dynata did not depend on the decisions they made. Dynata provided their participants with compensation equal to approximately \$0.50.

Table A.43: Beliefs about the percent of individuals holding socially-oriented equality views in the Professional Participants Study

Statement	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
B(F)	72.98	68.39	65.94	76.91	81.42	79.29	81.12	76.23
B(M)	50.80	47.93	44.99	55.89	65.41	68.02	71.93	65.90
$\Delta$	$22.18^{***}$	$20.46^{***}$	20.95***	21.03***	16.01***	$11.27^{***}$	9.20***	$10.34^{***}$
	(0.91)	(0.92)	(0.97)	(1.16)	(1.00)	(0.64)	(0.66)	(0.70)
Ν	800	800	800	800	800	800	800	800

Notes. This table shows the rate of believed agreement with the eight equality statements in the Professional Participants Study. B(F) and B(M) show the average believed percent of female and male participants who indicate agreement with the equality statement, and  $\Delta$  shows the difference in these percentages. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. Columns 1–8 correspond to the beliefs about equality statements 1–8 shown in Appendix Table A.13. The data are from online participants who report having management experience and hiring experience in the Professional Participants Study.

		V TI: LIN	
	who Do	You Think Is More	e Likely 10
	Make	Make Decisions	Favor Equal
	Generous	That Achieve	Pay
	Decisions	Equality	
	(1)	(2)	(3)
Women	66.50%	80.25%	78.24%
Men	8.50%	4.25%	4.75%
Neither	25.00%	15.50%	17.00%
Ν	400	400	400

Table A.44: Answers to the "In General" Questions in the Professional Participants Study

*Notes.* This table shows the percentages of subjects answering "Women", "Men" and "Neither women nor men" to the "In General" questions in the Professional Participants Study. The questions are detailed in Table A.14. The data are from online participants who report having management experience and hiring experience in the Professional Participants Study.

	Competitive Workplaces (1)	Cooperative Workplaces (2)
Women are believed to be more generous, which		
Helps their chances of succeeding as leaders in	19.75%	55.25%
Harms their chances of succeeding as leaders in	47.75%	13.50%
Neither helps nor harms their chances of succeeding as	32.50%	31.25%
leaders in		
Helps their chances of being hired in	14.75%	61.75%
Harms their chances of being hired in	51.25%	8.75%
Neither helps nor harms their chances of being hired in	34.00%	29.5%
Women are believed to be more equality-oriented, which		
Helps their chances of succeeding as leaders in	20.25%	58.00%
Harms their chances of succeeding as leaders in	44.00%	10.50%
Neither helps nor harms their chances of succeeding as	35.75%	31.50%
leaders in		
Helps their chances of being hired in	13.50%	58.50%
Harms their chances of being hired in	49.75%	11.25%
Neither helps nor harms their chances of being hired in	36.75%	30.25%
Ν	400	400

Table A.45: Answers to the Labor Market Questions in the Professional Participants Study

*Notes.* This table shows the percentages of subjects answering "helps", "neither helps nor harms" or "harms" to the Labor Market questions in the Professional Participants Study. The questions are detailed in Table A.15. The data are from online participants who report having management experience and hiring experience in the Professional Participants Study.

Panel 1:	Beliefs ab	out Econo	omic Game	es				
	EG1	EG2	EG3	EG4	EG5	EG6	EG7	EG8
B(F)	65.07	60.28	68.64	69.71	57.76	71.04	67.72	78.42
B(M)	52.86	46.90	48.12	55.66	54.32	66.26	60.96	56.59
$\Delta$	$12.21^{***}$	$13.38^{***}$	$20.52^{***}$	$14.04^{***}$	$3.44^{***}$	$4.78^{***}$	$6.76^{***}$	$21.84^{***}$
	(1.10)	(1.01)	(1.08)	(0.95)	(0.96)	(0.86)	(0.81)	(0.94)
Ν	800	800	800	800	800	800	800	800
Panel 2:	Beliefs ab	out Appli	cations Sta	atements				
Panel 2:	Beliefs ab	A2	cations Sta A3	A4	A5	A6	A7	A8
Panel 2: B(F)	$\begin{array}{c} \textbf{Beliefs ab} \\ A1 \\ \hline 75.95 \end{array}$	$\begin{array}{c} \textbf{out Appli}\\ \underline{\text{A2}}\\ \hline 74.60 \end{array}$	$\begin{array}{c} \text{Cations Sta}\\ \hline \text{A3}\\ \hline \hline 64.48 \end{array}$	$\begin{array}{c} \textbf{A4} \\ \hline 76.78 \end{array}$	A5 80.06	A6 83.54	A7 85.30	A8 77.56
Panel 2: B(F) B(M)	Beliefs ab A1 75.95 54.57	$\begin{array}{c} \textbf{out Appli}\\ \hline A2\\ \hline 74.60\\ 54.53 \end{array}$	$\begin{array}{c} \text{cations Sta}\\ \hline A3\\ \hline 64.48\\ 48.17 \end{array}$	Atements           A4           76.78           54.90	A5 80.06 63.06	A6 83.54 77.25	A7 85.30 77.75	A8 77.56 69.32
Panel 2: B(F) B(M) Δ	Beliefs ab A1 75.95 54.57 21.38***	$\begin{array}{c} \textbf{pout Appli}\\ \hline A2 \\ \hline 74.60 \\ 54.53 \\ 20.08^{***} \end{array}$	$\begin{array}{c} \text{cations Sta} \\ \underline{\text{A3}} \\ \hline \\ \hline \\ 64.48 \\ 48.17 \\ 16.32^{***} \end{array}$	A4 A4 76.78 54.90 21.89***	A5 80.06 63.06 17.00***	A6 83.54 77.25 6.29***	A7 85.30 77.75 7.55***	A8 77.56 69.32 8.24***
Panel 2: B(F) B(M) Δ	$\begin{array}{r} \textbf{Beliefs ab} \\ \hline A1 \\ \hline 75.95 \\ 54.57 \\ 21.38^{***} \\ (0.96) \end{array}$	$\begin{array}{c} \textbf{pout Applied} \\ \hline A2 \\ \hline 74.60 \\ 54.53 \\ 20.08^{***} \\ (0.98) \end{array}$	$ \begin{array}{c}     \text{A3} \\     \hline             \hline             48 \\             48.17 \\             16.32^{***} \\             (1.06)         \end{array} $	$ \begin{array}{r} \text{A4} \\ \hline \\ $	$\begin{array}{r} A5\\ \hline 80.06\\ 63.06\\ 17.00^{***}\\ (1.00) \end{array}$	$\begin{array}{r} A6\\ \hline 83.54\\ 77.25\\ 6.29^{***}\\ (0.59) \end{array}$	$\begin{array}{r} A7 \\ \hline 85.30 \\ 77.75 \\ 7.55^{***} \\ (0.63) \end{array}$	$     \begin{array}{r}         A8 \\         \overline{)77.56} \\         69.32 \\         8.24^{***} \\         (0.72) \\         \end{array} $

Table A.46: Beliefs about the percent of men and women favoring equality in the Broader Beliefs (Equality Attitudes) Study

Notes. This table shows the rate of believed agreement with the specific equality statements in the Broader Beliefs (Equality Attitudes) Study. B(F) and B(M) show the average believed percent of women and men who favor the type of equality described, and  $\Delta$  shows the difference in these percentages. SEs are shown in parentheses and clustered at the participant level. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01. The question labeled EG1-EG7 (Economic Game) loosely correspond with the Player 1 decisions from the Economic Games Studies and the EG8 question page is intended to capture beliefs about equality preferences in general. The questions labeled A1-A8 (Equality Attitudes Statement) directly correspond with the equality statements 1-8 from the Equality Attitudes & Employer Study. Each set of estimates corresponds to beliefs elicited in the noted pair of questions. The data are from the Broader Beliefs (Equality Attitudes) Study run with online participants. For the questions, see Table A.16.

## **B** Additional Figures



Figure B.1: Distributions of incentivized beliefs about P1 among undergraduate students

*Notes.* Graphs show CDFs for the believed percent of male and female decision-makers who choose the sociallyoriented outcome (denoted by B(M) and B(F), respectively) in the first-party scenarios of the Economic Games (Undergraduate Students) Study (see Table A.4 for more details). The panels correspond to (a) the Dictator Game (DG), (b) the Dictator Game with efficiency concerns (DG-EFF), (c) the Dictator Game with entitlement concerns (DG-ENT), (d) the Ultimatum Game (UG), (e) the Trust Game (TG), (f) the Prisoner's Dilemma (PD), (g) and the Public Goods Game (PGG).



Figure B.2: Distribution of incentivized beliefs about P1 among online participants

*Notes.* Graphs show CDFs for the believed percent of male and female decision-makers who choose the sociallyoriented outcome (denoted by B(M) and B(F), respectively) in the first-party scenarios of the Economic Games (Online Participants) Study (see Table A.4 for more details). The panels correspond to (a) the Dictator Game (DG), (b) the Dictator Game with efficiency concerns (DG-EFF), (c) the Dictator Game with entitlement concerns (DG-ENT), (d) the Ultimatum Game (UG), (e) the Trust Game (TG), (f) the Prisoner's Dilemma (PD), (g) and the Public Goods Game (PGG).



Figure B.3: Distribution of incentivized beliefs about NP among undergraduate students

*Notes.* Graphs show CDFs for the believed percent of male and female decision-makers who choose the sociallyoriented outcome (denoted by B(M) and B(F), respectively) in the third-party scenarios of the Economic Games (Undergraduate Students) Study (see Table A.4 for more details). The panels correspond to (a) the Dictator Game (DG), (b) the Dictator Game with efficiency concerns (DG-EFF), (c) the Dictator Game with entitlement concerns (DG-ENT), (d) the Ultimatum Game (UG), (e) the Trust Game (TG), (f) the Prisoner's Dilemma (PD), (g) and the Public Goods Game (PGG).



Figure B.4: Distribution of incentivized beliefs about NP among online participants

*Notes.* Graphs show CDFs for the believed percent of male and female decision-makers who choose the sociallyoriented outcome (denoted by B(M) and B(F), respectively) in the third-party scenarios of the Economic Games (Online Participants) Study (see Table A.4 for more details). The panels correspond to (a) the Dictator Game (DG), (b) the Dictator Game with efficiency concerns (DG-EFF), (c) the Dictator Game with entitlement concerns (DG-ENT), (d) the Ultimatum Game (UG), (e) the Trust Game (TG), (f) the Prisoner's Dilemma (PD), (g) and the Public Goods Game (PGG).





Notes. Graphs show the distribution of the number of times women were believed to be more likely to choose the socially-oriented outcome than men (i.e., when B(F) > B(M)). This graph is composed of first and third-party versions of the following games: the Dictator Game (DG), the Dictator Game with efficiency concerns (DG-EFF), the Dictator Game with entitlement concerns (DG-ENT), the Ultimatum Game (UG), the Trust Game (TG), the Prisoner's Dilemma (PD), and the Public Goods Game (PGG). The data are from the Economic Games Studies run with undergraduate students in Panel (a), and with online participants in Panel (b).



Figure B.6: Distributions of beliefs about equality statements

Notes. Graphs show CDFs for the believed percent of male and female decision-makers who choose the sociallyoriented outcome (denoted by B(M) and B(F), respectively) in the beliefs about equality statements part of the Equality Attitudes & Employer Study (see Table A.3 for more details). The panels correspond to different equality statements shown below the graph.

Figure B.7: Distributions of beliefs about employers choosing equal pay



*Notes.* Graphs show CDF for the believed percent of male and female decision-makers who choose the sociallyoriented outcome (denoted by B(M) and B(F), respectively) in the beliefs about employers part of the Equality Attitudes & Employer Study (see Table A.3 for more details). Specifically participants are asked "Among the group of male (female) employers who complete this study, what percentage do you think choose to pay workers equally?"