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Shame on Me: Emotions and Gender Differences in Taking with Earned Endowments

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Abstract

We study gender differences in a taking-framed dictator game. We expand on past studies documenting gender differences in the taking-framed dictator game by asking whether gender differences persist when endowments are earned. We find a strong and robust gender effect. Women take less than men both in terms of overall amounts and share taken. We further elicit emotions following the taking game. Shame is positively correlated with taking behavior; this could be a contributing factor to taking aversion documented in the literature. Interestingly we do not observe gender differences in reported emotions or emotional intensity by either dictators or receivers.

JEL Classifications: C91, D01, D64, D91, J16

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1 Introduction

There exist many environments in which decision makers must choose how to split resources between themselves and others. In some such environments, the decision is framed positively such that by allocating anything to another individual, the decision maker is behaving benevolently (e.g., giving to charity). In other environments, the decision is framed negatively such that the decision maker is taking resources for themselves at the expense of others. Examples of this include opting in to receiving limited funding or taking credit in group work environments. Such negatively framed decisions may induce greater levels of guilt when decision makers engage in self-interested behavior. This coupled with societal expectations that women should behave selflessly (https://www.psychologytoday.com/us/blog/insighttherapy/201110/women-and-selfishness; https://www.pewsocialtrends.org/interactives/strongmen-caring-women/) may make "taking" behavior more distasteful for women relative to men. As such, this could lead to gender differences in resource seeking and exacerbate gender gaps in the success of female small businesses (Smeltzer and Fann, 1989), promotions and raises (Blau and Devaro, 2007), and women seeking STEM degrees in higher education (Tellhed et al., 2017).

In light of these observations, this paper seeks to replicate and extend results from Chowdhury et al. (2017) that finds women take less than men in a taking-framed dictator game. Specifically, we ask whether the lower taking rate of women persists in an environment with earned endowments. In addition to more closely mirroring the real-world environments we are interested in studying, we suspect earned endowments may reduce gender gaps in taking behavior. Umer (2020) finds that women are only more generous than men in a givingframed dictator game only when making decisions with windfall endowments. When making decisions with earned endowments, women and men exhibit similar levels of generosity. Additionally, there is some evidence to suggest that women are more likely to rely on self-serving fairness norms when making decisions with earned endowments (Rodriguez-Lara, 2015). We further investigate reported emotions by both dictators and receivers. We ask whether taking behavior is correlated with emotions and whether there are gender differences in reported emotions.

The dictator game is a popular game used in economics experiments to elicit measures of other-regarding behavior. In the classic version of the dictator game, participants are randomized into the roles of either dictator or receiver. Dictators are endowed with a sum of money and are anonymously paired with a receiver. Dictators are tasked with deciding how much of their endowment they want to give to the receiver they are paired with. Receivers in this game have no action to take. Contrary to predictions under a narrowly self-interested model of preferences, dictators are commonly observed allocating positive amounts of money to the anonymous receiver they are paired with (Forsythe et al., 1994).

Many variations of the dictator game have been developed since it was first introduced to the experimental economics literature. One common variation is to use earned endowments instead of windfall endowments (Cherry et al., 2002). In this variation, dictators complete a task in order to earn their endowment. Dictators then decide how much of their earned endowment they wish to give to the anonymous receiver they are paired with. Another variation sometimes used in the dictator game involves changing the frame of the problem faced by the dictator (Suvoy, 2003). In the classic game, the dictator's decision involves giving money to the individual they are paired with. Alternatively, in a taking-framed dictator game, receivers are endowed with money and the dictators must decide how much of the receivers' endowment to take for themselves.

Previous results on gender differences in the dictator game are mixed. In the givingframed dictator game, there is not sufficient evidence to support the conclusion that women consistently give more than men. Rather, the results appear to be sensitive to a variety of factors such as the relative price of giving (Andreoni and Vesterlund, 2001); the cultural context of the game (Gong et al., 2015); or the gender identity of the receiver (Dufwenberg and Muren, 2006; Ben-Ner et al., 2004). As such, changing the frame of the dictator game from a giving-frame to a taking-frame may have a significant impact on gender differences in behavior. A smaller number of studies have done exactly this and examine gender differences in the taking-framed dictator game. Chowdhury et al. (2017) compare gender differences between the giving and taking framed dictator games. Confirming results from past studies focused on the classic version of the giving-framed dictator game, they find no significant gender differences in giving behavior; however, when looking at the taking-framed dictator game, they find women take significantly less relative to men.

Our study builds on these literatures in two ways. First, we add to the nascent literature documenting gender differences in the taking-framed dictator game. In line with Chowdhury et al. (2017), we document robust gender differences in the taking-framed dictator game even when endowments are earned. After controlling for endowments earned, we find that women take \$1.42 less than men on average (28 percent of the average group endowment). We further find that the share taken by women from their partner's endowment first order stochastically dominates the share taken by men from their partner's endowment; for any given share taken, women are more likely to have taken a share equal to or smaller than that share compared to men. Another way of thinking about this is that for any share taken, men have a higher probability than women of having taken more than that share. Second, to our knowledge, we are the first study to cleanly look at taking behavior in an environment with

earned endowments. We show that a large portion of dictators exhibit purely selfish behavior and take everything. This suggests that, when dictator decisions are taking-framed, selfish motives seem to override fairness norms demonstrated in the distributive justice literature.

This paper further contributes to the existing dialogue on the dictator game by exploring the reported emotions of dictators and receivers. The idea that emotions play a significant role in decision making has been championed by research across other fields including psychology neuroscience (Izard et al. (1984) and Damasio (1994), respectively). Until more recently, very little attention has been focused on this role of emotions in the economic literature. Frank (1988) demonstrates that players experiencing guilt can sustain the pareto improving outcome in a prisoner's dilemma game. This is just one example illustrating the power of emotions and therefore motivating our desire to better understand the role that emotions play in our specific environment.

In a series of papers, Van Winden and co-authors elicit emotions using the same method employed in our paper. While self-reported measures may seem less optimal compared to other scientific measures such as skin conductance responses (Coricelli et al., 2010), psychologists and emotion theorists emphasize the significance of self-reported emotion measures (Ortony et al., 1988).

Previous studies examining the role of emotions in the distribution decisions primarily focus on the receivers' emotions and find a strong relationship between negative emotions (such as higher envy or lower happiness) reported by receivers and the share taken from the receivers (Bosman and Van Winden, 2002). We document a very similar response by receivers in our study. We also extend from this analysis by looking at the reported emotions of the dictators in our study.

To our knowledge, this study is the first to look at the emotional response of dictators. While past studies have not looked at dictator emotions, it is still possible to form priors on the emotions one might expect using observed choices of dictators in the moral wiggle room literature as well as in the identifiable victim literature. Dana et al. (2007) find that when giving decision makers the ability to behave more self-interestedly with a reduced sense of responsibility for their impact on others. This, in conjunction with findings that something as simple as adding a first name of the recipient in dictator games increases prosociality of the dictation (Charness and Gneezy, 2008), suggests that decision makers would like to act self-interestedly but feel internal pressure to behave prosocially. As such, we may expect to find taking behavior by dictators to be positively correlated with negative self-emotions (e.g., shame). The effect of taking on positive emotions is more ambiguous because taking increases individual payoffs; however, taking also involves behaving in a salient self-interested manner which could increase negative self-emotions which in turn might dampen positive

emotions that would otherwise be felt by having increased payoffs.

The emotional response of dictators when engaging in taking might help explain preference differences individuals have for the decision frame they face in social decision settings. Recently, Korenok et al. (2017) document dictators exhibit an aversion to taking; many participants opted to pay money to play the giving-framed dictator game over the taking frame. We find shame is highly correlated with taking behavior. For each dollar taken, dictators report a 0.5 point increase in shame on a 7-point Likert scale. This emotional response could help explain participants' taking aversion demonstrated in Korenok et al. (2017).

To summarize, our study documents robust gender differences in taking behavior in a dictator game with earned endowments. We show that taking behavior is strongly correlated with self-reported shame. Interestingly, we do not find gender differences in reported emotions or the relationship between emotions and taking behavior. Since men and women exhibit different proclivities to take, environments in which decision makers must claim resources for themselves may favor men. This suggests that there is room to improve gender equality by ensuring environments with resource allocation have systems in place to fairly allocate resources between men and women (such as quotas) regardless of the demands made by each group.

The remainder of this paper proceeds as follows, in section 2 we present the experimental design, section 3 contains our key results, and in section 4 we discuss the implications of our findings and conclude.

2 Experimental Design

The experiment takes place in two stages with a questionnaire between the two stages and two treatments.¹ This paper will focus on the results of the first stage and the questionnaire. We leave the details and results of the second stage for another paper. While we inform subjects about the basic structure of the experiment in the beginning, they do not know details about each stage until immediately prior to the start of each stage. We also inform subjects that they will be randomly assigned the role of either Person A (dictator) or Person B (receiver) and that this role will remain constant throughout the experiment. However, we provide no details about the nature of the role until later in the experiment. We inform subjects that one of the stages will be randomly selected for payment in addition to a \$5 show-up fee. A copy of the instructions is available in the appendix.

In the first stage, subjects work through a five minute task to earn their endowment.

 $^{^{1}}$ The two treatments differ during the second stage. Because this paper focuses on the first stage, we will not differentiate between the two treatments in this paper.

The task consists of viewing a 5x4 grid filled with zeroes and ones and subjects must count the number of zeroes in the shown grid. If subjects correctly count the number of zeroes, they earn a point and a new grid is displayed. If they fail to correctly count, they get to try again. A subject earns \$0.15 each time they count the correct number of zeroes in the grid. After the five minutes, subjects observe their assigned role, Person A or Person B and are randomly matched one to one into anonymous pairs. Additionally, it is at this point, that the subjects learn the nature of the roles. Person A now has the opportunity to take part of the endowment earned by the matched Person B and Person B has no action to take.² Stage 1 serves as a dictator game framed in a taking domain with earned endowments.³ Person A observes how much they earned, how much Person B earned, and is asked to make their choice of how much to take from Person B. After Person A makes their decision, Person A and Person B observe Person A's decision and both subjects observe their final Stage 1 payoff. This concludes Stage 1.

After Stage 1 ends, subjects (both Person A and Person B) complete a reported emotion questionnaire consistent with Bosman and Van Winden (2002). Using a 7-point Likert scale, subjects report how they are feeling from "no emotion at all" to "high intensity of the emotion" in regards to irritation, anger, contempt, envy, jealousy, sadness, joy, happiness, shame, fear, and surprise. Using many emotions avoids priming subjects to repond in one particular way (Bosman and Van Winden, 2002)⁴. We then provide subjects with instructions for Stage 2 involves a winner-take-all tournament competition. As mentioned above, Stage 2 differs depending on the assigned treatment. We leave these results for another paper. At the conclusion of the experiment, subjects complete a basic demographic questionnaire.

The experiment was programmed in zTree (Fischbacher, 2007). All sessions took place in the Experimental and Behavioral Economics Laboratory at the University of California,

⁴After completing the emotion questionnaire, subjects had five minutes to complete the Cognitive Reflection Test (CRT) (Frederick, 2005).

²Providing both players with endowments serves two purposes. First, it allows both participant types to engage in an activity that further preserves role anonymity. Second, it better matches the real-world environments we are especially interested in studying. While this is a further departure from the taking-framed dictator game from Chowdhury et al., (2017), it is not immediately clear to us the directional impact this environment change will have on the gender gap in taking. We abstain from making predictions about comparing single to double endowments. Our experimental design only allows us to say whether gender differences in taking behavior can persist in our earned double-endowment environment

³This paper focused purely on a taking-framed dictator game with earned income. Given that understanding the emotional responses of participants was one of our main points of interest and that emotional response data is noisy, we decided that including a giving-frame or a windfall gain treatment in addition to an earned-income taking-frame was a secondary concern to maximizing the number of observations we could get in our main treatment of interest. Absent these treatments, we caution readers from inferring that observed gender differences in behavior are purely due to the treatment frame. Instead, we suggest readers interpret our results as evidence that gender differences in behavior can persist even in the presence of a taking frame with the addition of earned endowments.

Santa Barbara. The University's ORSEE system was used to recruit subjects. A total of 110 students participated (40 males and 70 females) and no subject participated in more than one session. Average earnings were \$8.50 and each session lasted approximately 30 minutes.

3 Results

To begin, we take a look at the endowments earned by subjects in the counting task to confirm that on average, subjects enter the taking portion of the experiment from a similar starting place (approximately \$5.15 on average). As shown in Table 1, there is no difference in the endowments earned by subjects when split by randomly assigned roles, no gender difference in the endowments earned by subjects, and no gender difference in the endowments earned by subjects when split by randomly assigned roles.⁵ The lack of difference in endowments by gender or type allows us to more cleanly analyze differences in taking behavior across individuals.

 Table 1: Summary Statistics

| | Male | Female | Pooled |
|-----------------|--------|--------------|--------|
| Dictator | \$5.15 | \$5.15 | \$5.15 |
| Endowment | (1.31) | (1.13) | (1.18) |
| | | | |
| Receiver | \$5.11 | \$5.18 | \$5.15 |
| Endowment | (1.08) | (1.20) | (1.14) |
| | | | |
| Endowment | \$5.13 | \$5.16 | \$5.15 |
| | (1.18) | (1.15) | (1.16) |
| | | | |
| Amount Taken | \$3.69 | \$2.06*** | \$2.62 |
| (Dictator only) | (1.67) | (1.99) | (2.03) |
| | | | |
| Share Taken | 0.72 | 0.42^{***} | 0.52 |
| (Dictator only) | (0.30) | (0.38) | (0.38) |

Starring represents t-tests for differences between males and females. * p<0.10, ** p<0.05, *** p<0.01. Standard errors are in parentheses.

Advancing to the taking behavior, subjects take \$2.62 on average. When splitting the data by gender, we observe that males take an average of \$3.69 while females take an average

⁵These results are robust to nonparametric tests (e.g., rank sum tests).

of \$2.06 and this difference is highly significant (p=0.0037). We also look at taking behavior in terms of the portion of the receiver's earnings taken by the dictator (share taken). Our result is robust to this specification. On average, subjects take 52% of the available receiver endowment. Males take an average of 72% while females take an average of 42%. Again, this difference is highly significant (p=0.0041). We can also validate our results using regression analysis. In the OLS regressions of Table 2, restricting our sample to dictators, we regress the amount taken and the share taken on the dictator's earned endowment, the receiver's earned endowment, an indicator for whether the dictator earned more than the receiver, and the gender of the dictator. The coefficient on female is negative as expected since women take less than men and highly significant under both specifications.⁶ Furthermore, we find no significant effect of being a bigger earner on either the amount or share taken. We interpret this finding as being in line with the lack of an entitlement effect discussed in Demiral and Mollerstrom (2020).

| | \$ Taken | Share Taken |
|---------------------------|-----------------|-----------------|
| Dictator's Endowment | -0.09 | -0.02 |
| | (0.32) | (0.06) |
| Receiver's Endowment | 0.44 | -0.02 |
| | (0.34) | (0.06) |
| Dictator is Bigger Earner | 1.02 | 0.17 |
| | (0.93) | (0.17) |
| Female Dictator | -1.42** | -0.28*** |
| | (0.56) | (0.11) |
| Constant | 1.19 | 0.80** |
| | (1.81) | (0.34) |
| Ν | $\overline{55}$ | $\overline{55}$ |

Table 2: OLS Regressions of Taking Decisions by Dictators

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

While we observe gender differences in the mean amount taken, there are many ways such differences could emerge. For instance, women could be less likely to take anything, men could be more likely to take everything, or women could be more inclined to use an egalitarian

⁶These results are robust to controlling for participant ethnicity.

split. To obtain a better sense of what is driving the gender differences in taking behavior, we evaluate the full distribution of taking behavior by illustrating the cumulative density functions (CDFs) for the share taken by dictator split by gender. In Figure 1(a) for our entire sample of dictators, we can see that taking differences exist across the entire distribution, we have first order stochastic dominance; for any possible share taken, women are more likely than men to have taken a share equal to or smaller than this amount. Because there might be something special about the behavior of individuals who choose to take everything, in Figure 1(b), we restrict our sample to only dictators who take less than everything. It is clear that our results hold, and we still have first order stochastic dominance. Again, there might be something unique about the behavior of individuals who choose to take nothing so in Figure 1(c), we restrict our sample to dictators who take a positive share. Our results remain robust to this specification. We continue to have first order stochastic dominance. Lastly, in Figure 1(d) we take the intersection of Figure 1(b) and Figure 1(c) and restrict our sample to only dictators who take a strictly interior amount. Except for a very small portion of the distribution, the CDF for the share taken by women lies strictly to the left of the CDF for the share taken by men. It is clear that taking differences persist at the intensive margin. We interpret these results as strong evidence that not only are women less likely to take than men, but women also take less than men in the taking framed dictator game.



Figure 1: Taking differences persist at the Intensive Margin. Not only are women less likely to take than men, but women also take less than men.

One factor that could contribute to gender differences in taking is the degree to which taking evokes negative emotions such as a "cold prickle" associated with abstaining from prosocial behavior (Andreoni, 1995). After observing the taking decisions, we elicit reported emotions. Shown in Table 3, for each emotion, the difference in the average reported intensity level across the randomly assigned roles goes in the expected direction and is statistically significant. Using ordered logit regressions, in Table 4, we show that the reported emotional intensity increases with both the amount taken and the share taken. However, we do not observe a gender effect; the reported emotional intensity increases with the amount taken similarly for males and females. Focusing our attention on the reported emotions of dictators, taking behavior is correlated with higher levels of reported shame and may be a potential explanation for taking aversion observed in the literature.⁷ For each dollar taken, dictators report a 0.5 point increase in shame on a 7-point Likert scale. Again, we do not observe a gender difference for the relationship between shame and taking behavior, providing evidence that men and women similarly experience shame as a result of their taking decisions. This suggests that gender differences in the emotional repugnance of taking do not appear to be driving gender differences in taking behavior.

The relationship between the taking decision and the reported emotions of the receivers is largely in line with the receiver behavior observed in Bosman and Van Winden (2002). For receivers, there is strong evidence that the coefficients on the negative emotions, specifically irritation, anger, envy, and jealousy, are all significantly positive providing evidence that an increase in the share taken is correlated with higher reported intensity of these negative emotions. Additionally, as expected, the coefficients on both happiness and joy are negative and significant, providing evidence that an increase in the share taken is correlated with lower reported intensity of these positive emotions.

4 Conclusion

In this paper, we examine gender differences in the taking-framed version of the dictator game with earned endowments and the relationship between taking behavior and emotions. We find strong evidence that a sizable gender gap exists even in the presence of earned endowments. Women take significantly less than men both in terms of the dollar amount taken and the share of their partner's endowment. These results persist even after controlling for own and partner's endowment size and an indicator for which is bigger. We compare the

 $^{^{7}}$ The effect of taking behavior on reported shame remains significant after applying a Bonferroni correction for multiple hypothesis testing. For \$ taken, the effect is significant at the 5% level. For share taken, the effect is significant at the 10% level.

| | | Pooled | | | Dictator | ſ | | Receive | r |
|------------|----------|----------|--------------|------|----------|--------|------|---------|-------------|
| | Dictator | Receiver | Diff. | Male | Female | Diff. | Male | Female | Diff. |
| | | | (SE) | | | (SE) | | | (SE) |
| Irritation | 2.25 | 4.36 | -2.11*** | 2.05 | 2.36 | -0.31 | 4.19 | 4.47 | -0.28 |
| | | | (0.33) | | | (0.45) | | | (0.51) |
| Anger | 1.53 | 3.45 | -1.93*** | 1.21 | 1.69 | -0.48 | 3.05 | 3.71 | -0.66 |
| | | | (0.30) | | | (0.30) | | | (0.55) |
| Contempt | 2.45 | 3.27 | -0.82** | 2.79 | 2.28 | 0.51 | 3.48 | 3.15 | 0.33 |
| | | | (0.35) | | | (0.56) | | | (0.49) |
| Envy | 1.62 | 3.33 | -1.71*** | 1.42 | 1.72 | -0.30 | 3.33 | 3.32 | 0.01 |
| | | | (0.32) | | | (0.34) | | | (0.57) |
| Jealousy | 1.45 | 3.25 | -1.80*** | 1.26 | 1.56 | -0.29 | 3.19 | 3.29 | -0.10 |
| | | | (0.31) | | | (0.29) | | | (0.58) |
| Sadness | 1.89 | 3.00 | -1.11*** | 1.63 | 2.03 | -0.40 | 2.57 | 3.26 | -0.69 |
| | | | (0.30) | | | (0.33) | | | (0.51) |
| Joy | 3.20 | 2.40 | 0.80^{**} | 3.37 | 3.11 | 0.26 | 2.33 | 2.44 | -0.11 |
| | | | (0.35) | | | (0.55) | | | (0.48) |
| Happiness | 3.27 | 2.49 | 0.78^{**} | 3.74 | 3.03 | 0.71 | 2.43 | 2.53 | -0.10 |
| | | | (0.34) | | | (0.53) | | | (0.48) |
| Shame | 2.22 | 1.33 | 0.89^{***} | 2.42 | 2.11 | 0.31 | 1.43 | 1.26 | 0.16 |
| | | | (0.24) | | | (0.45) | | | (0.23) |
| Fear | 1.89 | 1.44 | 0.45^{**} | 1.95 | 1.86 | 0.09 | 1.76 | 1.24 | 0.53^{**} |
| | | | (0.22) | | | (0.39) | | | (0.25) |
| Surprise | 2.51 | 3.71 | -1.20*** | 2.53 | 2.50 | 0.03 | 3.43 | 3.88 | -0.45 |
| | | | (0.39) | | | (0.52) | | | (0.61) |
| Ν | 55 | 55 | | 19 | 36 | | 21 | 34 | |

Table 3: Average Report Emotion Responses by Randomly Assigned Role

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

cumulative distribution functions for both male and female taking behavior and show that for any share taken, men are more likely than women to have taken an amount larger than this share. This holds true even when we only consider those individuals that take a strictly positive amount.

We further investigate the relationship between taking behavior and reported emotions. We find a strong relationship between feelings of shame and taking behavior; however, we do not observe significant gender differences in emotional intensity or the relationship between emotional intensity and taking behavior. While the high correlation between shame and taking-behavior serves as a potential explanation for taking aversion documented in studies such as Korenok et al. (2017), negative feelings associated with taking do not appear to

| | Dictator | | | | Receiver | | | |
|------------|--------------|------|--------------|------|--------------|------|--------------|------|
| | \$ Taken | | Share Taken | | \$ Taken | | Share Taken | |
| | Coefficient | SE | Coefficient | SE | Coefficient | SE | Coefficient | SE |
| Irritation | -0.05 | 0.14 | -0.03 | 0.73 | 0.66** | 0.16 | 3.43*** | 0.79 |
| Anger | 0.02 | 0.17 | 0.18 | 0.91 | 0.49^{***} | 0.13 | 2.65^{***} | 0.71 |
| Contempt | 0.16 | 0.14 | 0.83 | 0.76 | 0.20 | 0.12 | 1.01 | 0.65 |
| Envy | 0.04 | 0.16 | 0.36 | 0.84 | 0.37^{***} | 0.13 | 1.96^{***} | 0.69 |
| Jealousy | 0.13 | 0.17 | 1.10 | 0.94 | 0.28^{**} | 0.13 | 1.51^{**} | 0.67 |
| Sadness | 0.19 | 0.13 | 1.09 | 0.73 | 0.09 | 0.12 | 0.58 | 0.62 |
| Joy | 0.14 | 0.13 | 0.60 | 0.67 | -0.28** | 0.13 | -1.57** | 0.68 |
| Happiness | 0.10 | 0.12 | 0.26 | 0.66 | -0.30** | 0.13 | -1.66^{**} | 0.67 |
| Shame | 0.50^{***} | 0.16 | 2.34^{***} | 0.80 | -0.16 | 0.19 | -0.26 | 0.92 |
| Fear | 0.06 | 0.15 | 0.17 | 0.78 | -0.04 | 0.17 | 0.35 | 0.86 |
| Surprise | 0.07 | 0.13 | 0.08 | 0.71 | -0.19 | 0.12 | -1.24* | 0.65 |

 Table 4: Ordered Logit Regressions on Reported Emotions

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

explain the gender differences in taking behavior.

Taking these results together in combination with the fact that endowments were earned, we interpret these results as strong evidence that in zero-sum resource taking environments, women have a tendency to take less than men. Turning to existing literature, there are several reasons why we may be observing such differences. For instance, differences could be due to biological factors (e.g., Buser, 2012), social norms and habit formation (e.g., Giffin, 2020; Akerlof and Kranton, 2000), or women having a stronger desire to maintain a positive self-image (e.g., DellaVigna et al., 2013; Klinowski, 2018). Our experiment is unable to disentangle these explanations; we leave to future studies to explore this. Regardless of why we observe such gender differences, the potential real-world implications remain the same. Without allocation mechanisms in place to ensure equal allocation to men and women, we may see women being underrepresented in the receipt of many resources such as small business grants; fixed departmental resources for travel, teaching assistance, or research; or even time from bosses, advisors, and mentors due to women requesting less than their male counterparts in such fixed-resource environments.

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Appendix

Subject Instructions

WELCOME

Welcome and thanks for participating in this experiment. Please read these instructions carefully. They are identical for all the participants with whom you will interact during this experiment.

This experiment consists of two stages and a questionnaire between stages. We first describe Stage 1 and we'll give you instructions for Stage 2 once Stage 1 is over. I will review the instructions with you.

If you have any questions please raise your hand. One of the experimenters will come by and answer your questions. From now on, communication with other participants is not allowed. If you do not conform to these rules we have to exclude you from the experiment. Please switch off your mobile phone at this time.

You will be paid for your participation. How much depends on your behavior, the behavior of the other participants, and partly on chance. Stage 1 or Stage 2 will be randomly selected for payment and you will be paid for your decisions in the selected stage in addition to a \$5.00 show-up fee. You will be paid in cash privately at the end of the experiment.

General Instructions

At the beginning of the experiment, you will be randomly assigned with equal probabilities as either Person A or Person B. This role will not change throughout the experiment. Stage 1

Stage 1

You will now each be given 5 minutes to complete a task in order to earn money in addition to your \$5 show-up fee.

In this task, you will see a 5x4 grid filled with 0's and 1's. You are tasked with counting the number of 0's in the shown grid. Once you finish counting, enter your number in the box provided and click submit. If you are correct, you will earn a point, and a new grid will appear. If you are incorrect, you will not earn a point, and a new grid will appear. You will earn \$0.15 (15 cents) for each correctly completed task.

Stage 1 (cont.)

If you are a Person A, you will be randomly matched to a Person B. If you are a Person B, you will be randomly matched to a Person A. Person A will be given the opportunity to take part of the endowment earned by the matched Person B. Person B has no action to take.

| As accurately as possible, please indicate how you are feeling. Each question has a response scale numbered from 1 to 7, where 1 = No Emotion at All, and 7 = High Intensity of the Emotion. | | | | |
|---|-------------------|---|--|--|
| | | | | |
| Inflation | No Emotion at All | | | |
| Anger | No Emotion at All | C C C C C C High Intensity of the Emotion | | |
| Contempt | No Emotion at All | C C C C C C High Intensity of the Emotion | | |
| Envy | No Emotion at All | C C C C C C High Intensity of the Emotion | | |
| Jealousy | No Emotion at All | CCCCCC High Intensity of the Emotion | | |
| Sadness | No Emotion at All | CCCCCC High Intensity of the Emotion | | |
| Joy | No Emotion at All | C C C C C C High Intensity of the Emotion | | |
| Happiness | No Emotion at All | C C C C C C High Intensity of the Emotion | | |
| Shame | No Emotion at All | C C C C C C High Intensity of the Emotion | | |
| Fear | No Emotion at All | C C C C C C High Intensity of the Emotion | | |
| Surprise | No Emotion at All | CCCCC High Intensity of the Emotion | | |
| | | | | |
| | | | | |
| | | | | |
| | | Continue Questionnaire | | |
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Figure 2: Emotion Elicitation