Strategy and Coordination in Risky Household Decisions: Evidence from Bangladesh

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Abstract

In patriarchal societies, social norms restrict women's roles within households to only certain spheres of household decision-making. This leads to asymmetric information about household resources between spouses, making coordination in decision-making difficult. Poor coordination in risk-taking decisions can expose households to excessive risk if a person makes risky decisions under the false impression that their spouse has sufficient assets to cover a crisis or it can cause households to sacrifice legitimate investment opportunities if both spouses are overly conservative. This study investigates whether married couples in rural Bangladesh successfully coordinate risky decisions across their respective domains. Using an artefactual experiment, we elicit individual risk preferences and employ a two-stage lottery-choice game to examine joint decision-making. The results indicate widespread coordination failures: only a quarter of couples successfully coordinate risk-taking decisions, while most either assume excessive risk or become overly conservative due to misaligned beliefs about each other's choices. Households where spouses exhibit greater divergence in individual risk preferences are more prone to coordination errors, as spouses try to counteract each other's choice. These experimental findings align with real-world financial behaviors, as women who overestimated their husband's risk aversion in the experiment also tended to overestimate their husband's actual savings behavior. This study provides novel evidence on how intrahousehold information frictions contribute to inefficient risk-sharing and distort critical financial decisions, potentially affecting long-term household welfare. The findings contribute to research on strategic interactions in household decision-making, risk-sharing inefficiencies, and the role of gender norms in shaping financial coordination within families.

Keywords: Risk preferences, intrahousehold decision-making, gender, spousal cooperation, lab-in-field experiment, rural households, Bangladesh

JEL Codes: C93, D13, D81, J16, O12

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1 Introduction

Household risk exposure is shaped by individual decisions made by household members within their respective domains of decision-making. Traditional intrahousehold models assume Pareto-efficient household decision-making (Chiappori, 1992, 1997). However, in reality, divergent priorities and imperfect information about each other's decisions can lead to coordination failures. Poor coordination between spouses can expose a household to excessive risk—if a household member makes risky decisions under the false impression that their spouse has sufficient assets to cover for them in case of a crisis. Or, it can cause households to sacrifice legitimate investment opportunities because both spouses are overly conservative.

In patriarchal societies, gendered social norms define women's roles in households, restricting their involvement in various spheres of household decision-making. In South Asia, men have predominant control over activities which take place outside the house including income-generating activities such as farming. Women have influence over decisions related to healthcare, children's education, and household good purchases (Sajjad Kabir, 2013). The exclusion of women from various spheres of decision-making creates asymmetric information between spouses about household resources. Decisions taken under these conditions can lead to coordination errors on the part of women or men.

This study examines whether couples successfully coordinate risky decisions across their respective domains of decision-making when faced with asymmetric information and divergent preferences. To test this hypothesis, we first document differences in risk preferences between husbands and wives. Next, we examine whether in joint decisions individuals adjust their own choice based on their spouse's potential choice. Finally, we assess whether coordination failures arise from incorrect beliefs about a spouse's actual decisions when information is imperfect.

To answer these questions we use an artefactual experiment conducted among married couples in rural Bangladesh. To measure divergence in risk preferences between couples, we elicit individual risk preferences using an investment-menu-style risk elicitation exercise similar to Binswanger (1981) whereby a player's choice of a risky lottery from a list of options is used to determine their individual risk preference. To observe joint risk-taking decisions, we use a novel two-stage lottery-choice game, where husbands and wives try to coordinate risk-taking decisions. In the first stage, the first-mover selects a lottery from a list of options without any knowledge of their spouse's choice. In the next stage, the second mover chooses a lottery from the same list, conditional on the first-move's choice. The combined winnings from both lotteries are equally divided between husband and wife. To avoid potential post-game conflicts between couples, we used the strategy method to elicit the second-mover's choice, asking them to specify their response for every possible first-mover choice instead of revealing the actual choice. This allows us to capture the full decision strategy of the second-mover, offering insights into whether individuals condition their own choices in risky-decisions on their spouse's choices. The first mover has imperfect knowledge of their spouse's decision and must rely on their beliefs about the spouse's likely choice. The first mover's expectations about the spouse's strategy is elicited to measure the degree of coordination error on their part. Each couple plays one round with the husband as the first mover and another with the wife as the first mover. We use a between-subject design which allows me to directly measure how divergence in individual risk preferences between spouses and their strategies in the joint-decision contribute to their coordination error.

The experimental findings are indicative of actual household behavior. Women are found to overestimate their husband's pecuniary savings and the level of physical assets like livestock held. Women and men also have mistaken beliefs about the reasons for which their partners maintain savings. Women prioritize saving for emergencies and for education and marriages needs of their children. They also incorrectly overestimate how much of their husband's pecuniary savings is made to meet this need. Similarly, husbands prioritize savings for investments needs in farmings than women. A similar tendency is observed in terms of loans taken by the household, with women prioritizing spending to meet emergencies and health needs more than men. In times of crisis, men were found to rely primarily on savings as a coping mechanism while women reported credit as the most common measure they used. If women make credit decisions under mistaken beliefs about household finances, it may affect their judgment and expose the household to unnecessary risk especially if it is under preexisting stress due to shocks like droughts. While the insights from this study were derived from a sample of Bangladeshi households, they are relevant to most cultural contexts where individuals make decisions with imperfect knowledge about their spouse's choices. Especially in patriarchal societies, social norms that exclude women from specific domains of decision-making could exaggerate information barriers between spouses and amplify coordination errors between spouses. Well-designed policies and government support for NGOs that promote women's engagement in decision-making are therefore essential to enhance women's empowerment and improve household welfare.

This study contributes to the literature on risk sharing, strategic interactions in household decision-making, and information frictions. While early studies on risk sharing test efficiency using observational data on household savings patterns (Mazzocco, 2004, 2007), we use an artefactual experiment to directly examine coordination in risk-taking decisions between spouses. Under complete risk sharing, stochastic shocks to the household shouldn't affect consumption levels which are determined by permanent levels of income. Through the experiment we show that most people and particularly women fail to coordinate risk-taking decisions with their spouses. Data on household behavior under stress also reveals that women are likelier than men to rely on emergency credit or consumption reduction or assets sales as coping strategies.

This study also builds on recent work on information frictions and allocative efficiency in households (Abbink et al., 2020; Buchmann et al., 2025; Conlon et al., 2021; Afzal et al., 2022; Tagat et al., 2024). Tagat et al. (2024) in the context of a lab-in-the-field experiment conducted among Indian married couples shows that men have imperfect knowledge about their spouse's consumption preferences for common household goods. Our work extends this finding by observing intra-spouse coordination in decisions involving risk. We refrain from contextualizing the game in order to make the findings generalizable to a wide variety of household decisions which involve uncertainty—-financial or otherwise. Our findings reveal that coordination errors are made by both spouses, but unlike the earlier work, the women in our sample had less accurate knowledge of their spouse's preferences than men. Tagat et al. (2024) also find that correcting people's beliefs about their spouse's consumption preferences does not change their final choices. While we could not reveal spouse's actual choices to players in case of unfavourable interactions post-game play, the second-mover was allowed to state their choice of lottery conditional on the first-mover's potential choice. Based on the findings, it appears that men on average do not condition their choice of lottery on their spouse's potential choice, whereas women tend to try to align with their husband's choice as the first-mover. Similar gender differences in responsiveness to a spouse's actions in household decisions have been recorded in recent literature; such as men placing less trust on information discovered by their spouses than women (Conlon et al., 2021) and women showing a greater tendency to defer to their spouses than men (Abbink et al., 2020). Our findings show that in information constrained environments men have more accurate beliefs about their spouse's risk preferences then women but when information about the spouse's choice is available, women are more likely to condition their choice on their spouse's choice than men.

Using regression analysis, we predict the accuracy of beliefs about spouse's choice and the second-mover's responsiveness to their spouse's potential choice on household socioeconomic characteristics. The results show that a person's ability to predict their spouse's choice relies on their spouse's strategy–people who align with their spouse's choices are easier to predict than people who do not. Whether a person tries to align or counter their spouse in joint decisions is also predicted by their employment status–people with access to an independent source of income show less tendency to align with their spouse's choice of lottery, and their spouse's strategy. According to the separate spheres bargaining model in cultures where divorce is not a credible threat such as Bangladesh, a non-cooperative equilibrium where each spouse only specializes in their traditional role in the household may be the primary threat point (Lundberg and Pollak, 1993). The finding that people are assortatively matched by their willingness to align with their spouse's choice corroborates this theory. We also plan to use a household utility function adapted from the collective framework of household bargaining to quantitatively measure household bargaining power distribution based on the deviation between the risk exposure level achieved jointly from player's own risk preferences (Chiappori, 1997).

2 Setting and Sample Characteristics

The experiment was conducted using married couples recruited from forty-six villages in the Bogura district of Bangladesh. These households were recruited as part of a larger study examining the demand for cold storage facilities among fruit and vegetable growers in Bangladesh. For a household to be eligible to participate, it had to be a fruits and vegetables grower. The experiment was conducted by enumerators at the participant's homes during the baseline survey for the larger study. The baseline survey was conducted during November and December of 2024. 1059 households from 46 villages in two upazillas (Shibgonj and Kahalu) of Bogura district were surveyed as part of the baseline, however, the experiment could only be conducted for 1774 individuals from 887 households. The experiment was not conducted if either respondent refused to participate or if an eligible household member was not present in the household when the enumerators went to visit. Out of the households where the experiment was conducted, data on women's savings in the household was missing for two. We exclude these two households from the final sample which is composed of 1770 individuals or 885 couples[1]. The non-response rates are well within the bounds expected during power calculations. Power calculations were based on figures obtained from earlier related studies[2].

Bangladesh offers an interesting backdrop in which to test cooperation between spouses in household decisions. Most unions are long-lasting since divorce is not very common [3]. Thus unions may persist despite growing dissonance between partners. Within the household, tasks are assigned to husband and wife based on existing gender and traditional norms Choudhury (2019). The patriarchal nature of Bangladeshi society means that most decision-making powers are invested in the husband. Since the resulting resource distribution may be very unequal, women have an incentive to engage in non-cooperative behavior (Baland and Ziparo, 2018). The exclusion of women from important spheres of household decision-making also increases the likelihood of the existence of asymmetric information between spouses. There are also several spheres of household decision-making where women have a significant role. In our sample women were most empowered to make decisions regarding education and health care of children and livestock rearing in the household. Figure 1 shows how decision making powers are divided in households between men and women. While most men have sole decision-making powers in spheres of household activity which take place outside the household (farming decisions like cultivation decisions and when to take crops to the market), most women have sole or joint decision-making powers in the spheres of household activity which take place inside it (decisions about children's health care, education and purchases for the household). Most importantly in decisions regarding household savings and credit most women reported having either sole or joint say.

[1]Non-participant men had a higher proportion of individuals with less than primary education, which could indicate more traditional-minded individuals compared to participants (Appendix Table B.1).

[2]We relied on Chowdhury et al. (2022) for sample characteristics such as standard deviations in the outcome and probable effect size. The design allows detection of a 0.2 standard deviation size effect with at least 0.8 power.

[3]The divorce rate in Bangladesh was 1.1% in 2023 as per figures released by the Bangladesh Bureau of Statistics (The Business Standard, 2024).

Within Bangladesh, the choice of Bogura district was motivated by the needs of the larger study conducted to assess the need for cold storage for fruits and vegetables. Bogura is one of the major vegetable producing regions in Bangladesh (Mou et al., 2019). It has a largely rural population with a literacy rate slightly below the national average (Bangladesh Bureau of Statistics, 2024). Our sample is representative of agricultural communities in Bangladesh and similar to samples used in earlier studies on related topics (Abbink et al., 2020; Chowdhury et al., 2022).

Table 1 presents summary statistics of some household and individual demographic characteristics. Our sample was primarily composed of low-income Muslim households. Around 40% of the households had a young child. The average man was around 40 years of age and the average women 35. In nearly all of the cases the adult male in the couples recruited headed their own household. Due to patrilocal marital arrangements, it is more common for the husband's parents to be co-living them than the wife's parents. 85% of men and 81% of women had completed at least primary education. Most men worked on own their farms (78%) while most women were homemakers (84%). The institution of *purdah* which is still practiced in Bangladesh enforces women's exclusion from public spaces restricting their choice of occupation. Still, the second-most common primary occupation for women was livestock rearing (8%).

3 The Experiment

3.1 Design

A male and a female enumerator went to each household with the male recruiter interviewing the primary male adult and the female enumerator attending to his wife. Both household members were interviewed at the same time but in different locations of the household to minimize interactions between couples during game play. The male and female household members were given the game after answering some questions about socioeconomic condition. The male household member was additionally asked questions about fruits and vegetables production and storage methods in the household. Enumerators used tablet computers with survey instruments developed using the *SurveyCTO* platform.

At the heart of the experiment design is a risk preference elicitation exercise which is played under four different treatment specifications. We employ a within-subject design, meaning that each couple participated in each of the treatments in succession. While each of the games were incentivized, players were paid for their performance in one randomly selected game.

The decision to use a within-subject design was motivated by both the need for internal validity and the need to maximize statistical power given existing constraints (Charness et al., 2012). Since different teams of enumerators visited different households to conduct the experiment, relying on a within subject design offers greater robustness to bias concerns due to differences in ability between enumerators than a between-subject design.

The first treatment is called the *Solo* treatment and it is based on the risk elicitation exercise employed by Binswanger (1981). Under this treatment, the player was asked to make a choice from a list of six alternative lotteries. Each lottery had two equally likely positive outcomes and the outcomes were varied between lotteries to create variation in perceived riskiness. Table 2 lists the set of lotteries presented to each player, both male and female, to choose from. Players were handed a sheet of paper with visual representations of the six options. A lottery was depicted using a horizontal bar graph with an orange bar representing the payout in case of the "high" outcome and a white bar representing the payout in case of the "low" outcome. All six lotteries were represented in this fashion, so that individuals with limited literacy were not at a disadvantage. Figure B.1 depicts the sheet of paper handed to players. Enumerators also explained each of the lotteries while pointing them out in the sheet of paper. Based on the player's choice of lottery, the risk preference of the individual is calculated assuming constant relative risk aversion (CRRA) utility. Any winnings from the *Solo* treatment was intended for the player alone.

The second treatment is called the *Shared* treatment. The game played under this treatment is identical to that in the *Solo* treatment except in the incentive structure. Any winnings from this game is equally divided between the player and their spouse. It is used to model individual decision-making for the household.

The third and fourth treatments are variations on a joint-decision making problem with sequential decisions. The player and their spouse play this game jointly with each of them selecting a lottery from the set of lotteries in table 2. The player and their spouse are each paid half of the combined winnings from the two chosen lotteries. The first-mover makes their choice from the set of lotteries without any information about the second-mover's choice. The second-mover makes their choice conditional on the first-mover's choice. The second-mover is not informed of the first-mover's actual choice rather their response is recorded using the strategy method. This saves us from having to divulge the first-mover's actual choice to their spouse, which could potentially lead to unfavorable interactions between spouses post-game play. Having players think over all the possible choices of their spouse helps ensure that individuals make a well-thought out decision (Charness et al., 2012). The second-mover's strategy so elicited, is used to characterize the responsiveness of their choice to their spouse's choice. First-movers are also incentivized to predict their spouse's strategy as second-mover [4]. Figure 2 represents a the game tree for a condensed version of the *Joint* game where the first-mover (at node A) has a choice between two lotteries (branches G_1^A and G_2^A) and the second-mover (at nodes B) also chooses between two lotteries (branches G_1^B and G_2^B) without precise knowledge of the first-mover's choice but without precise knowledge of the outcome of the chance event (nodes labelled N) which decides between a high and a low payout from the first-mover's chosen lottery.

Each player first plays this game as the second mover with their spouse as the first mover under the *Joint-Second* treatment. After that the player records their responses as the first

[4]First-movers were paid an additional 150 Taka if they could correctly predict their spouse's strategy, 100 Taka if they got only one lottery choice wrong or 50 Taka if they got two lottery choices wrong. This additional amount is paid out only in the instance that that specific game is selected for payment.

mover with their spouse as the second-mover under the *Joint-First* treatment. We match the husband's responses in his *Joint-First* game with his wife's responses in her *Joint-Second* game to get the pair of lotteries chosen when the husband is the first mover. Similarly by matching the wife's choice under the *Joint-First* with her husband's choice under the *Joint-Second* treatment gives us the pair of lotteries chosen when the wife is the first mover. Having participants first record their answers as the second-mover before playing as the first-mover helped ensure that they were familiar with the entire structure of the joint-decision, specifically how the second-mover would be making their lottery choice conditional on the choice of the first-mover. These games are used to model decision making in households. Unlike most papers examining allocative efficiency in the household where players make unilateral decisions, second-movers are allowed to react to their partner's decision. The second-mover's strategy is used to measure their willingness to cooperate with their spouse. Figure 3 represents the game design.

The players in a household were each paid either for their performance in the *Solo* game or the *Shared* game or the *Joint* game in which the wife was the first mover or the *Joint* game in which the husband was the first mover. Which game was to be paid was randomly decided with each of the four scenarios being equally likely. [5]

At the end of all of the games, the enumerator first revealed to their player the outcome of each of the lotteries chosen by them in each of the four games. This was done by making four successive draws from a bag containing two balls of different colors each. An orange ball implied a high outcome for the chosen lottery and a white ball implied a low outcome. Once the round to be paid for was randomly determined, each enumerator handed their player their winnings without revealing which round they were being paid for or what their spouse won.

3.2 Strategy of second-mover

The second-mover states their strategy in the *Joint* game as the lottery they would play:

(a) if the first-mover choose lottery 1,

(b) if the first-mover choose lottery 2,

(c) if the first-mover choose lottery 3,

(d) if the first-mover choose lottery 4,

(e) if the first-mover choose lottery 5,

(f) and if the first-mover choose lottery 6.

If we represent each lottery by it's number (Table 2), then a person's answers to the questions (a) to (b) which characterizes their strategy can be condensed into the correlation coefficient

[5] There was a 20% chance of each of four scenarios being selected for payment and additional 20% chance of the player and their spouse receiving 250 Taka each instead. This was done to prevent players from deducing their own or their spouse's performance based on the payments received.

between the lottery number representing the first-mover's potential choice and the second-mover's stated choice in response to it. Table 3 lists an example strategy, the second-mover in this case is playing riskier lotteries as their spouse chooses riskier options. The correlation coefficient calculated between the first-mover's potential choice (Column (1)) and the second-mover's stated choice (Column (2)) in this case is equal to 0.143. If the second-mover had tried to counter the first-mover by choosing safer lotteries as they chose riskier ones, the correlation would be have been negative. In the cases where the second-mover does not condition their response on the first-mover's choice the correlation will equal zero.

Thus each second-mover's strategy is represented by the *Strategy* variable which is equal to the correlation between the first-mover's potential choice and their own stated choice as shown above.

3.3 Risk measurement

We use two main measures to represent risk preferences and the risk exposure level—the Risk Aversion Parameter (γ) and the Lottery Number Index (LNI).

3.3.1 Risk Aversion Parameter (RAP) for *Solo* (γ_{Solo}) and *Shared* (γ_{Shared}) Games:

We measure a player's risk preferences using their observed lottery choice in the *Solo* and *Shared* game. Risk preferences are expressed in terms of the risk aversion parameter which for a constant relative risk aversion (CRRA) utility function. CRRA utility functions are a special case of the harmonic absolute risk aversion (HARA) class of utility functions which also includes constant absolute risk aversion (CARA) functions. CRRA utility functions are commonly used to describe risk preferences derived in lab experiments (Chakravarty et al., 2011; Holt and Laury, 2002; Harrison et al., 2005; Coller and Williams, 1999; Holt and Laury, 2014; Harrison and Rutström, 2008).

$$U(x) = \frac{x^{\gamma}}{1-\gamma} \quad \text{where} \quad \gamma \neq 1 \tag{1}$$

An individual's risk preference for the couple (or household) is measured based on their choice of lottery in the *Shared* game. We compare the expected utility from their revealed choice to the possible expected utilities from the other lotteries to find the values of γ consistent with their choice.

For example, if an individual chooses lottery 2 from Table 2, it means that for that individual:

$$
\begin{aligned}
EU(L_2) &\geq EU(L_1) \\
\implies 0.5 * \frac{190^\gamma}{1-\gamma} + 0.5 * \frac{100^\gamma}{1-\gamma} &\geq 0.5 * \frac{125^\gamma}{1-\gamma} + 0.5 * \frac{125^\gamma}{1-\gamma} \\
\implies \gamma &\leq 3.03
\end{aligned} \tag{2}
$$

And,

$$
\begin{aligned}
EU(L_2) &\geq EU(L_3) \\
\implies 0.5 * \frac{190^\gamma}{1-\gamma} + 0.5 * \frac{100^\gamma}{1-\gamma} &\geq 0.5 * \frac{240^\gamma}{1-\gamma} + 0.5 * \frac{90^\gamma}{1-\gamma} \\
\implies \gamma &\geq 1.99
\end{aligned} \tag{3}
$$

Thus, their revealed risk aversion parameter (γ) value exists in the interval $[1.99, 3.03]$. For simplicity, a person's revealed risk preference level is characterized by the mid-point of the range of γ consistent with their observed choice. Higher values of the risk aversion parameter (γ) indicate greater aversion to risk. The risk aversion parameter calculated based on a player's choice in the *Solo* game is denoted as γ_{Solo}. The parameter calculated based on a player's choice in the *Shared* game is denoted as γ_{Shared}.

In case a person chooses either lottery number 1 or 6, it isn't possible to calculate a mid-point value of γ, so either the upper- or lower-limit of the relevant interval of values is used, based on whichever is finite. This design upper-codes γ values at 3.03 and lower-codes them at 0.12. To achieve greater precision in calculated γ values would have required greater number of choices to be presented to players either in the same set or across sets. This was not possible due to constraints set by the field and observed tendency of fatigue among players when faced with too many choice during piloting.

We have to make three assumptions to be able to characterize risk preferences based on the observed choices in the $Solo/Shared$ games in this way:

1. Individual utilities satisfy constant relative risk aversion (CRRA).
2. Implicit in the above assumption is the condition that people are not altruistic about their spouse's income or risk preference.
3. Individuals do not make mistakes when choosing lotteries.

3.3.2 Risk Aversion Parameter (RAP) for *Joint* (γ_{Joint}) Game:

To measure the risk exposure level achieved in the *Joint* game in a way that allows comparisons with the risk aversion parameter, we employ an intellectual abstraction. In the *Joint* game, the first mover makes their choice from among the six options given the knowledge that their spouse as the second-mover will choose a lottery conditional on their choice as first-mover. The first-mover's choice will thus be influenced by their belief about their spouse's lottery choice. Incorrect beliefs can cause the first-mover to stray from their preferred risk level. We assume a central planner with perfect knowledge of the second-mover's strategy and calculate the risk parameter which would have led them to make the same lottery choice as the first-mover.

Say, that the second-mover's strategy is as follows:

- lottery 5 if the first-mover chooses 1,
- lottery 5 if the first-mover chooses 2,
- lottery 4 if the first-mover chooses 3,
- lottery 3 if the first-mover chooses 4,
- lottery 2 if the first-mover chooses 5,
- and lottery 1 if the first-mover chooses 6,

and the first-mover's choice is lottery 2. A central planner who knows the second-mover's strategy would know that choosing lottery 2 is tantamount to choosing the lottery combination (2, 5) out of the six alternative combinations created by the second-mover's strategy. Comparing the expected utilities calculated for each of the lottery combinations produces the range of γ values consistent with the central planner's choice. One of the comparisons for this case would be:

$$
\begin{gathered}
EU(L_2, L_5) \geq EU(L_1, L_5) \\
\implies 0.25 * \frac{(190+15)^\gamma}{1-\gamma} + 0.25 * \frac{(190+400)^\gamma}{1-\gamma} + 0.25 * \frac{(100+15)^\gamma}{1-\gamma} + 0.25 * \frac{(100+400)^\gamma}{1-\gamma} \\
\geq 0.25 * \frac{(125+0)^\gamma}{1-\gamma} + 0.25 * \frac{(125+450)^\gamma}{1-\gamma} + 0.25 * \frac{(125+0)^\gamma}{1-\gamma} + 0.25 * \frac{(125+450)^\gamma}{1-\gamma} \\
\implies \gamma \in [0.01, 5.0]
\end{gathered}
\tag{4}
$$

The intersection of the γ ranges obtained by pairwise comparisons of each of the expected combinations is used to calculate the risk exposure level achieved by the first-mover and second-mover. This parameter is denoted as γ_{Joint}. The values of γ consistent with each pairwise comparison of the entire set of possible combinations of lotteries in Table 2 were calculated using the `numpy` package in *Python* and using codes created with the assistance of ChatGPT.

The obtained γ values are discretized into the intervals presented in Table 2. This is done to make the risk levels obtained from the *Joint* game comparable to the risk preference values in the *Solo* and *Shared* games.

Addendum: Household Utility Function We plan to use a household utility function adapted from Chiappori (1997) to characterize the outcome obtained in the *Joint* game. We will use a household utility function of the following type:

$$U^h(x_A, x_B) = \mu \frac{x_A^{\gamma_A}}{1-\gamma_B} + (1-\mu)\frac{x_B^{\gamma_B}}{1-\gamma_B} \tag{5}$$

where $\gamma_A, \gamma_B \neq 1$ are the risk preference parameter of the first-mover (γ_A) and second-mover (γ_B) calculated on the basis of their lottery choice in the *Shared* game, x_A and x_B are expenditure by first-mover (A) and second-mover (B), and $\mu \in [0, 1]$ is constant which measures bargaining power of the first-mover. This analysis is meant to complement the findings from the comparisons between the risk exposure level in the *Joint* game with the risk preference of the first mover.

3.3.3 *Lottery Number Index (LNI)*

The lottery number index (LNI) is given by the lottery number (Column (1)) that indexes the lotteries listed in Table 2. It takes integer values going from 1 to 6. Higher values of the *LNI* are associated with more risky lottery choices. This measure makes fewer assumptions about the underlying preferences of individuals. The ranking of the lotteries in Table 2 was based on risk aversion parameters calculated assuming constant relative risk aversion. So, the underlying assumption is that individual preferences share the same cardinal properties as preferences characterized by constant relative risk aversion.

4 Results and Discussion

4.1 Coordination Errors

Table 4 shows difference between the expected lottery choice of the second-mover as elicited from the first-mover and the second-mover's actual choice. This is the error in the first-mover's prediction about the second-mover's choice.

The variable *Error* in Table 4 is calculated as the difference between the expected lottery choice of the second-mover as elicited from the first-mover and the second-mover's actual choice. Lottery choices are expressed in terms of the *LNI*.

$$Error = E_1(L_2) - L_2 \tag{6}$$

where L_2 is the *LNI* for the second-mover's chosen lottery given the first mover's actual choice of lottery (L_1), and $E_1(L_2)$ is the first-mover's belief about the second-mover's choice. This variable is zero if the first-mover has correct beliefs, negative if the first-mover overestimates how risk averse the second-mover's choice is, and positive if the first-mover underestimates how risk averse the second-mover's choice is. It can take integer values in the interval $[-5, 5]$. *Abs. error* is constructed as the absolute value of *Error*. It takes integer values in the interval $[0, 5]$. Non-zero values of *Abs. error* indicate that the second mover's choice deviated from the first-mover's expectation.

The mean *Abs. error* is statistically different from zero for both the samples of men and women first movers, indicating that first mover's on average failed to correctly anticipate their spouse's choice. Additionally, on average women first-movers make larger coordination errors than men. The *Error* variable is not statistically different from zero for either men or women first-movers. However, for women the average of the *Error* variable is positive suggesting a tendency to underestimate the risk aversion of their second-mover and for men it is negative suggesting a tendency to overestimate the risk aversion of their second-mover. These findings indicate that the average first-mover had mistaken beliefs about their spouse's choice which then caused the the overall risk exposure level for the couple to deviate from the intended or anticipated level.

Figure 4 presents the distribution of the (a) *Error* for men first-movers, (b) *Error* for women first-movers, (c) *Abs. error* for men first-movers, and (d) *Abs. error* for women first-movers. Only 27% of men first-movers correctly anticipate about their wife's choice of lottery and even fewer women first-movers, 23%, correctly anticipate their husband's choice. Majority of first-movers misjudge how much risk their spouse is taking. In order to understand how serious the problem is at an individual or household level, it is useful to understand that a person who expects their spouse to be "Slightly risk averse" when they are actually "Risk seeking" would have an *Abs. error* equal to 2. So, first-movers with *Abs. error* greater than or equal to 2, around 45% of all men first-movers and 48% of all women first-movers, are making serious coordination errors, causing them to deviate from their intended risk-exposure level for the household.

To estimate the effect of the coordination error made by the first-mover on overall household risk exposure, we compare the risk aversion parameter calculated based on a player's behavior in the *Shared* game with the risk aversion parameter which characterizes the final lottery combination which arises in the *Joint* game with the player as first-mover. In the *Shared* game a player chooses a lottery whose winnings are shared between them and their spouse. We assume that this choice reveals a person preferred risk exposure level for the household or the couple. The calculation of the risk exposure level (γ_{Joint} and $\gamma_{Joint}^{appr.}$) attained in the *Joint* game is explained in section 3.3.2. The absolute deviation in the risk exposure level achieved by the first-mover in the *Joint* game from their revealed risk preference in the *Shared* game ($|\gamma_{Shared} - \gamma_{Joint}|$) captures how far the achieved exposure level was from their preferred level. Figure 5 presents the distribution of the absolute deviations of achieved level from preferred level for male and female first-movers. Using γ_{Joint} to measure risk exposure level, only 22% of men first-movers (Sub-figure 5a) and 21% of women first-movers (Sub-figure 5b) are able to achieve their preferred risk exposure level[6].

26% of men and 23% of women in our sample had correct beliefs about their spouse's choice as second-mover. Comparing risk exposure levels across the *Shared* and *Joint* games, reveals that the failure to coordinate means that only 22-29% of men and 21-26% of women are able to achieve their preferred risk exposure level in the presence of imperfect information about their spouse's choices. The average γ_{Shared} for both women and men was around 1.3 (Table 5), indicating that most individuals in our sample were moderately risk averse (Table 2). A positive deviation of one unit from 1.3, produces a risk exposure level that could be characterized as "very risk averse" and a negative deviation by one unit would mean a risk level which would be chosen by "slightly averse" individuals. Using this as a threshold, we find 48-49% of men and 52-54% of women achieve a risk exposure level in the *Joint* game which deviates from the preferred level by an amount greater than this threshold.

4.2 Intrahousehold Preference Heterogeneity

Table 5 shows the average risk preferences of participants as elicited in the *Solo* and *Shared* games. Risk preferences are expressed in terms of the *risk aversion parameter* (γ).

On average the choice patterns of both men and women indicated moderate risk aversion. Men were more risk-taking in their choices in the *Shared* game than in the *Solo* game. There is weak evidence of a similar tendency among women to accept more risk when the risks are shared with their spouse. This finding is especially interesting in light of earlier findings that strangers are more risk averse when playing with another's money (Chakravarty et al., 2011).

[6] γ_{Joint} could be calculated for 717 (81%) out of the sample of 887 male first-movers and for 703 (79%) out of the sample of 887 female first-movers. This value could not be calculated if the choice of lottery combination in the *Joint* game did not follow CRRA utility function predictions.

The absolute divergence in risk preferences between spouses is statistically different from zero. The difference in spousal risk preferences is equal to 1.2 and slightly smaller in magnitude based on the choices in the *Shared* game than in the *Solo* game. 54% of the couples in the *Shared* game and 51% of the couples in the *Solo* game have an absolute difference greater than unity between each other's risk preference parameters (γ).

4.3 Strategy in *Joint* Game

The second-mover's choice in the *Joint* game was elicited using the strategy method whereby they were asked to state their preferred lottery choice for every possible lottery choice of the first-mover. The first mover's beliefs about the second-mover's strategy was also elicited allowing us to observe how people expect their spouse's to play. Figure 6 panel (a) is a set of box plots representing the distribution of lottery choices of male second movers for every potential choice of the first mover and panel (c) presents similar box plots for female second-movers. Panel (b) shows the distribution of expected lottery choices for men second-movers and panel (d) shows the analogous distribution for women second-movers. The horizontal axis of each of the figures plots the potential choice of the first-mover in terms of the *LNI*. The vertical axis plots either the second-mover's stated lottery of choice (Panels (a) and (c)) or their expected choice (Panels (b) and (d)). Visual inspection of panels (a) and (c) suggests that both men and women as second-movers show some tendency to co-move with the first-mover's choice, choosing riskier lotteries in response to riskier choices by the first-mover. This can be expected among married couples and could indicate mutual trust in one another's choices. However, this tendency is much more pronounced among women. Panels (b) and (d) show the distribution of expected lottery choices of men and women second-movers as elicited from their spouses. Comparing actual to expected choices, reveals that women expect their spouse to align with their choice as the first-mover but in reality men's choices as the second-mover are not sensitive to the first mover's choice (Panels (a) and (b)). Even though as second-movers men make choice which are independent of their wife's choice (Panel (a)), in their role as the first-mover they correctly predict that their wife will align with their choices (Panel (d)).

The second-mover's *Strategy* variable is constructed on the basis of their stated lottery choices for every potential choice of the first-mover. Sub-section 3.2 describes how the *Strategy* variable is constructed. A positive value of the *Strategy* variable would arise if the second-mover is trying to align their choice with the first-mover's choices while a negative value would indicate that the second-mover is trying to counter the first-mover's choice, choosing progressively safer lotteries as the first-mover chooses riskier lotteries. If a second-mover does not condition their choice on the first-mover's choice the *Strategy* variable should be zero. Column (1) of Table 6 lists the actual and expected values of the *Strategy* variable for the men and women in our sample. They paint a similar picture to that in Figure 6. The average value of the *Strategy* variable for male second-movers is equal to 0.184 and for female second-movers it is equal to 0.321. The difference in mean outcomes is statistically significant at the 1% level indicating that women on average are more likely to try to align with the first mover's choices. Men's choices as second movers on the other hand appear not to be very sensitive to the first-mover's choice. This finding could be driven by a higher tendency among women to defer to their partners in decisions than men (Abbink et al., 2020) or by men not wanting to appear to be "overly dependent" on their wives. Thus, there appear to be gendered differences in how much weight a person places on their spouse's opinion or choice. Similar tendencies have been documented in relation to information discovered by a person's spouse as opposed to self-discovered information (Conlon et al., 2021). Column (2) of the same table lists the average expected *Strategy* variable values for men and women. Men expect their wives to align with their choices as first-movers even though they underestimate the degree to which this happens. However, women expect their husband's choices as second mover to try to align with them similar to their own strategy as second movers causing the predicted *Strategy* variable value for men to deviate significantly from the actual value.

Beyond the picture painted by Table 6 and Figure 6 there is still considerable heterogeneity. Figure 7 shows the distribution of the *Strategy* variable among the sample of men and women second-movers. While the majority of second movers have positive *Strategy* values, there is still considerable number of people who try to counter the first-mover's choices with values on the left-side of the origin. For women there is a mass-point at 1 representing the women whose choices perfectly co-move with the first-mover's choice. For men there are two mass-points, a mass-point at 1, similar to but smaller than the one for women, and a mass-point at 0 representing the men who did not condition their choice as second-mover on their wife's choice at all.

4.4 Mechanisms

We have shown evidence to support the motivating hypothesis that coordination errors between couples in risk-taking decisions so exist. We have also shown evidence to support the secondary hypotheses that there is disparity in risk preferences within couples and that some people, especially women, try to coordinate with their spouse when making interrelated decisions. In this section, we use simple regression techniques to investigate how intrahousehold preference disparity and the second-mover's strategy contribute to the prediction error committed by the first-mover.

Tables 7 and 8 report the results of regressions of the *Error* variable and the *Abs. error* variable on the *Strategy* variable of the second-mover and preference disparity between spouses in the *Shared* game. All lottery choice variables are expressed in terms of the *LNI*.

Table 7 shows that the intrahousehold preference disparity ($LNI^{self}_{Shared} - LNI^{spouse}_{Shared}$) can predict the prediction error made by the first-mover. Individuals who are more risk-loving (/risk-averse) than their spouse overestimate how risk-loving (/risk-averse) their spouse's choice is in the joint decision. This could happen because people faced with imperfect information base their assumption about the spouse's choice on their own preferences. The finding is robust to controls for household and player-specific socioeconomic characteristics such as age, education, and occupation. Comparisons between people's own strategies and their predictions about their spouse's strategy presented in Section (4.3) also supported this finding about belief formation in households, especially for women. Table 8 shows that both a player's spouse's *Strategy* and their own *Strategy* predict the absolute magnitude of the prediction error made by them. The negative correlation between spouse's *Strategy* and *Abs. error* means that first-movers expect their spouse to try to align with them. The negative correlation between a player's own *Strategy* as second-mover and their *Abs. error* as a first-mover is less intuitive, as this variable does not directly affect the player's decision as the first mover. One possible explanation is that players use their own behavior as a reference when predicting their spouse's choices. Players whose second-movers strategy is oppositional or unresponsive to the first-movers may be worse at predicting their spouse's actions if second-movers on average are more likely to align. Figure 6 and Table 6 supports this trend, showing that the average second mover's choices co-move with the first mover's potential choices. Another potential explanation for the negative relationship between *Abs. error* and *Strategy* is that players who try to counter the first mover as a second mover are more likely to have spouses who themselves try to counter the player as a second mover rather than aligning with them.

Employment status also predicts *Abs. error* made by men and women (Table B.3). Men who are either students or stay at home have better knowledge of their spouse's choices in the joint game maybe because they spend more time at home with their spouse and have greater knowledge of their choices. Women first movers with husbands who stay at home also make smaller coordination errors when they play as first movers indicating perhaps that time spent in each other's company increases information transfer between spouses. Men with spouses who have independent sources of income make larger coordination errors perhaps because these women are less likely to align with their husband's choice.

Table 9 reports the results of regressions of a player's *Strategy* variable on their spouse's *Strategy* variable. A player's *Strategy* variable is positively associated with their spouse's *Strategy* confirming that players who counter the first-mover's choice are have spouses who also do the same (and vice versa). The more risk averse a woman (LNI^{self}_{Shared} in columns (3) and (4)) is, the less positive her *strategy* is because to balance the risk exposure level, she would have to select safer lottery choices in response to riskier choices by the first mover. Non-cognitive skill measures are constructed using responses to a Big 5 personality test adapted from Chowdhury et al. (2022) to explore if certain personality types made people more or less likely to try to align with their spouses when making joint decisions. Extroversion among women is negatively associated with *Strategy* while conscientiousness is positively associated with *Strategy*. Among men, those who reported being more open to new experiences were more likely to try to align with their spouse's decisions in the joint game. Women with access to independent income sources like wage laborer are less likely to align with their spouse in the joint decisions and their husbands as second mover are also more like to counter them.

The next subsection explores whether people's behavior in the game can predict actual household behavior.

4.5 Actual Household Behavior

4.5.1 Pecuniary Savings

Husbands and wives were asked if either "you or your husband made any savings in the past 12 months?" Individuals reported on both whether they themselves or their spouse had any savings. Figures 8a and 8b report the percentage of men and women who were correct about their spouse's savings behavior, overestimated their spouse's savings behavior, or underestimated it. While men on average neither over- nor underestimate their spouse's savings behavior, women tend to overestimate their spouse maintaining savings. On average, there was a 28% chance that a woman would overestimate their spouse maintaining savings, but this figure was only 17% among men. Figure 9 plots the distribution of reported purposes for maintaining savings. Men and women who answered the earlier question affirmatively were asked to report the two top reasons for maintaining the savings. When reporting on their own savings, a greater proportion of women state savings for emergencies and education of their children as the top reasons than men (Figures 9a and 9c), and a greater proportion of men maintain savings for purposes such as investment on farming technology than women (Ibid.). Figures 9a, 9b, 9c and 9d compare people's self-reported reasons for maintaining savings with what their spouse reports as the reasons. Men overestimate how much savings women maintain for investment needs while women overestimate how much savings men maintain for unforeseen events, marriage, and education expenses for their children. Both household members have mistaken beliefs about what their spouse is saving for, and women specifically overestimate whether their husband maintains any savings at all. For further evidence that the observed widespread coordination error in the experiment is not unique to its design, I examine if behavior in the experiment can predict real world behavior below.

Table 10 reports the results of a regression of errors in reporting husband's savings on *Errors* made by women as the first-mover. *Error* is negatively correlated with the likelihood that a woman is correctly informed of her husband's savings in the past 12 months (Columns (1) and (2)). This weak association is primarily because women who overestimate their husband's risk aversion in the joint game are more likely to overestimate if he has made savings in the past 12 months (Columns (3) and (4)). The estimated coefficient, which is significant at the 5% level, is robust to village level fixed effects and controls for demographic characteristics. For every unit increase in *Error* by a woman as first-mover, they are 1.4% more likely to overestimate how much savings the household has. *Strategy* as a second mover is also a good predictor of whether a woman overestimates her husband's savings behavior. For every 0.1 unit increase in a woman's *Strategy* variable, they are around 1% more likely to have inflated beliefs about savings in the household. If the *Strategy* can be interpreted as a measure of how much trust a person places on their spouse's choice as a first mover, this implies that women who place a lot of weight on their husband's choices are more likely to mistakenly belief that their husband is making savings for the household.

Error is not a good predictor of a woman's likelihood to underestimate her husband's savings behavior. However, her individual risk preference is positively associated with probability to underestimate. More risk averse women are more likely to believe that their spouse does not make any savings even when he reports making savings. Having very young children also makes a woman more likely to mistakenly believe that her husband does not have savings than mistakenly believe that he does. A woman's mother's presence in the household decreases the chances of her having inaccurate knowledge of husband's savings by increasing information transfer from her husband to her.

Table 11 reports the results from an analogous regression for men. *Error* made by men is not a good predictor of either their chance to overestimate or underestimate their wife's savings. However men whose wives are more risk averse than them (*Shared*: Own γ - Spouse γ) are more likely to believe that their wife makes savings even though when they do not. Men on average have more accurate beliefs about their spouses preferences and choices in the game than women (Table 4). If a husband believes that his wife is more risk averse than him, he may believe that she has savings in the household. However, without sufficient agency a woman who would like to maintain savings may fail to do so. Women's degree of decision-making power in the household is negatively associated with husband's likelihood to overestimate her savings showing that this may be the case. Thus, even in households where women are allowed limited decision-making powers men expect them to hold savings. Similar to the case of women, the presence of a husband's mother in the household increases the transfer of information from his wife to him.

4.5.2 Livestock Assets

Poor rural households keep livestock asset such as poultry to meet one-off expenditures, as a source of informal savings and insurance (Pica-Ciamarra et al., 2011). To measure this tendency in our sample, we asked male and female respondents to list the number of different livestock like poultry, goats, and cattle owned by the household. To see if the coordination errors in the game predict information asymmetry in livestock assets, we difference the total number of livestock reported by the husband from the number reported by his wife. Table 12 presents the results from regressing this variable on coordination errors by wives and husbands in the game, the *Strategy* variables and relevant controls. Similar to what we found with pecuniary savings, coordination errors made by women in the game are a good predictor of the difference between the number of livestock reported by them versus their husbands. Women who overestimated how safe their husband's lottery choice was, were also more likely to think the household had more livestock assets than was reported by their husband. This supports our argument that there is clear information asymmetry between husbands and wives which may adversely impact women's decisions in the household. Crucially, the index for women's decision-making powers in the household does not predict information asymmetry about livestock assets. This implies that the phenomenon is not isolated to women who do not make independent decisions in the household, but also to women who make household decisions and can affect outcomes. Women's *Strategy* variable is also positively associated with the difference in the reported number of livestock assets. Women who try to align with their husband's choices in the joint game are likelier to overestimate the household livestock assets than other women. This is also similar to what we saw in case of pecuniary savings.

4.5.3 Shock Coping Mechanisms

We asked the women in our sample whether the household had experienced any adverse shocks in the past 12 months. We inquired about five types of shock commonly faced by agricultural households: weather events like droughts or irregular rains, natural disasters like cyclones, job loss of an earning member, serious illness or death of an earning member, serious illness or death of a non-earning member; and the July-August political revolution which took place in 2024. Respondents reported on which household members were primarily responsible for taking coping measures and which measures were taken. Based on the responses we find that the most common shocks were weather events (26.4% of women respondents), serious illness or death of an earning members (17.3%), serious illness or death of a non-earning member (11.0%), and the July-August revolution (10.7%).

This study was motivated by the thought that husbands and wives often have to take decision involving risk independently. If there is a lack of coordination or asymmetric information about household assets between spouses it can limit how well they are able to make these decisions. In this sense, observing how households actually cope with adverse shocks using savings or credit–either informal or formal.

Figure 10 panel (a) shows the distribution of times that different households members were one of those primarily responsible for taking coping measures. Both men and women played are responsible for making decisions about how to cope with adverse shocks to the household. For 90% of the shocks reported husbands were one of the household members responsible for taking coping measures and for 50% of the cases wives were one of the members taking the coping measures. Panel (b) shows the distribution of the different coping measures taken. Households most commonly resort to drawing on their savings (60% of the time) or obtain credit from either formal or informal sources (30% of the time). We further disaggregate shocks into shocks in which only husbands managed the fallout without the help of their wives and shocks in which wives managed the fallout without any input from their husbands. 315 (44%) out of the 712 shocks reported by the sample of women satisfied the first description and 67 (9%) satisfied the second description. Panel (c) reports the distribution of coping measures employed in the shocks managed by husbands and panel (d) shows the distribution of measures employed in the shocks managed by women. Comparing these two distributions, reveals that men rely on savings (60% of the time) far more than women (30%) of the time and women rely on credit (40%) more than men (20%). Since a lot of micro-credit institutions make out loans in the name of the adult women in the household, it is understandable that women would rely on credit more than savings which may be easier for husbands to obtain since they are more involved in more income-earning activities than their wives.

The above discussion shows that women make decisions to take credit for the household. However, if they overestimate the amount of savings in the household, as was shown through the experiment and actual household behavior, they may be overexposing the household to risk especially during times when an adverse shock may have already depleted household resources.

4.5.4 Credit Decisions

Respondents were asked to report how many active loans the household had in the past 12 months, the primary decision-maker for each loan, the purpose for each loan, and the source from which they were obtained. Figure 11 shows the distribution of reasons for which men and women took out loans as reported by themselves and their spouses. The decision to take a loan could have been made jointly or solely by either the husband or the wife. For the distributions in figure 11 we used the reasons stated by respondents for those loans that they stated as being taken out solely by either themselves or their spouse. Panel (a) shows the distribution of women's reasons as reported by themselves, (b) shows the distribution of women's reasons as reported by their husbands, (c) shows the distribution of men's reasons as reported by themselves, and (d) shows the distribution of men's reasons as reported by their wives. Investment into the farm or other household business is the most common reason for taking loans. However, men place greater importance to investment than women. As reported by themselves, around 86% of all loans that men took were for agricultural or non-agricultural investment purposes (Panel (c)). The second most common reason was to meet household needs. Women stated investment as a reason for 59% of the loans they took, and household needs as a reason for 18.2% of the loans (Panel (a)). Women are more likely than men to take loans for emergencies such as shocks to the household or to repay other loans. This finding aligns with we found in our analysis of household behavior under shocks.

5 Conclusions

This paper uses a lab-in-field experiment to analyze coordination in risk-taking decisions between spouses in rural Bangladesh. We find evidence of widespread coordination error between spouses in joint-decision. Using a unique sequential game design we directly observe how spouses respond to each other in joint risk-taking decisions. The findings reveal that men are less willing than women to align with their spouse's decisions. Consequently women face greater difficulty in coordinating with their spouse's choice and household risk exposure levels deviate further from the first-mover's preferred risk level when women perform this role. These findings contribute to the growing literature on intra-household information frictions (Conlon et al., 2021; Tagat et al., 2024; Abbink et al., 2020; Buchmann et al., 2025) by demonstrating how, under experimental conditions, frictions in information pass-through between spouses can contribute to coordination errors in risk-taking decisions in households.

Household data confirms the gendered division of household tasks, with most outdoor activities being performed solely by men, and activities such as investing in education and health of children often being performed by women alone. We show that the division of roles in the household fosters asymmetric information between spouses, especially with regard to the state of household assets–both pecuniary savings and real assets such as livestock. We are able to relate the experimental results to real-world data, showing that women who overestimated their husband's risk aversion in the game were also more likely to be overoptimistic about their spouse's savings strategy in the household. As women are more likely to make decisions such as taking out loans for their children's future and make provisions for possible emergencies, such mistaken beliefs can threaten to overexpose the household to risk, especially in times of preexisting stress due to adverse shocks such as droughts, which are common among agricultural households. There is evidence of assortative matching between spouses by the willingness to coordinate in risk taking decisions, which aligns with the prediction of the separate spheres bargaining model (Lundberg and Pollak, 1993) that in the event of a cooperative equilibrium breakdown, spouses retreat into their traditional roles in the household leading to a sub-optimal non-cooperative equilibrium.

While the results derived in this study are based on a sample of participants recruited from rural Bangladesh, its findings are relevant to household decision-making in all information-constrained environments. Especially, patriarchal norms by restricting women's roles in various spheres of decision-making, exacerbate the information dearth for them and make it harder for them to take well-informed decisions. The present study shows how in addition to limiting women's agency, gender norms also negatively impact household well-being.

References

Abbink, K., Islam, A., and Nguyen, C. (2020). Whose voice matters? An experimental examination of gender bias in intra-household decision-making. *Journal of Economic Behavior & Organization*, 176:337–352.

Afzal, U., d'Adda, G., Fafchamps, M., and Said, F. (2022). Intrahousehold Consumption Allocation and Demand for Agency: A Triple Experimental Investigation. *American Economic Journal: Applied Economics*, 14(3):400–444.

Baland, J.-M. and Ziparo, R. (2018). Intra-Household Bargaining in Poor Countries. In Anderson, S., Beaman, L. G., and Platteau, J.-P., editors, *Towards gender equity in development*, UNU-WIDER studies in development economics. Oxford University Press, Oxford, United Kingdom, first edition edition.

Bangladesh Bureau of Statistics (2024). Population and Housing Census 2022: District Report: Bogura. Technical report, Bangladesh Bureau of Statistics.

Binswanger, H. P. (1981). Attitudes Toward Risk: Theoretical Implications of an Experiment in Rural India. *The Economic Journal*, 91(364):867.

Buchmann, N., Dupas, P., and Ziparo, R. (2025). The Good Wife? Reputation Dynamics and Financial Decision-Making inside the Household. *American Economic Review*, 115(2):525–570.

Casella, G. and Berger, R. (2024). *Statistical inference*. CRC press.

Chakravarty, S., Harrison, G. W., Haruvy, E. E., and Rutström, E. E. (2011). Are You Risk Averse over Other People's Money? *Southern Economic Journal*, 77(4):901–913.

Charness, G., Gneezy, U., and Kuhn, M. A. (2012). Experimental methods: Between-subject and within-subject design. *Journal of Economic Behavior & Organization*, 81(1):1–8.

Chiappori, P.-A. (1992). Collective Labor Supply and Welfare. *Journal of Political Economy*. Publisher: The University of Chicago Press.

Chiappori, P.-A. (1997). Collective models of household behavior: the sharing rule approach. *Intrahousehold resource allocation in developing countries*, pages 39–52. Publisher: The John Hopkins University Press Baltimore and London.

Choudhury, M. S. (2019). MFI microsavings: inclusive or transformative? – A participatory survey of household savings in northeast rural Bangladesh. 1(1).

Chowdhury, S., Sutter, M., and Zimmermann, K. F. (2022). Economic Preferences across Generations and Family Clusters: A Large-Scale Experiment in a Developing Country. *Journal of Political Economy*, 130(9):2361–2410.

Coller, M. and Williams, M. B. (1999). Eliciting Individual Discount Rates. *Experimental Economics*, 2(2):107–127.

Conlon, J., Mani, M., Rao, G., Ridley, M., and Schilbach, F. (2021). Learning in the Household. Technical Report w28844, National Bureau of Economic Research, Cambridge, MA.

Harrison, G. W., Lau, M. I., Rutström, E. E., and Sullivan, M. B. (2005). Eliciting risk and time preferences using field experiments: Some methodological issues. In *Field Experiments in Economics*, volume 10, pages 125–218. Emerald Group Publishing Limited. ISSN: 0193-2306.

Harrison, G. W. and Rutström, E. E. (2008). Risk Aversion in the Laboratory. In *Research in Experimental Economics*, volume 12, pages 41–196. Emerald (MCB UP), Bingley.

Holt, C. A. and Laury, S. K. (2002). Risk Aversion and Incentive Effects. *American Economic Review*, 92(5):1644–1655.

Holt, C. A. and Laury, S. K. (2014). Assessment and estimation of risk preferences. In Machina, M. J. and Viscusi, W. K., editors, *Handbook of the economics of risk and uncertainty*, volume 1, pages 135–201. North-Holland, Amsterdam, Netherlands.

Lundberg, S. and Pollak, R. A. (1993). Separate Spheres Bargaining and the Marriage Market. *Journal of Political Economy*, 101(6):988–1010.

Mazzocco, M. (2004). Saving, Risk Sharing, and Preferences for Risk. *American Economic Review*, 94(4):1169–1182.

Mazzocco, M. (2007). Household Intertemporal Behaviour: A Collective Characterization and a Test of Commitment. *The Review of Economic Studies*, 74(3):857–895.

Mou, M. M., Islam, M. R., Mondal, T., Monalesa, N., and Abdullah, M. M. (2019). Improved Vegetable Cultivation Practices: An Adoption Study among the Farmers' of Some Selected Areas in Bangladesh. *Asian Journal of Agricultural Extension, Economics & Sociology*, 37(2):1–8.

Pica-Ciamarra, U., Tasciotti, L., Otte, J., and Zezza, A. (2011). Livestock Assets, Livestock Income and Rural Households: Cross-country Evidence from Household Surveys. ESA Working Paper 11-17, Food and Agriculture Organization of the United Nations (FAO), Rome.

Sajjad Kabir, S. M. (2013). Household Decision Making Process of Rural Women in Bangladesh. *IOSR Journal of Humanities and Social Science*, 10(6):69–78.

Tagat, A., Kapoor, H., and Kulkarni, S. (2024). Private lives: experimental evidence on information completeness in spousal preferences. *Journal of the Economic Science Association*, 10(1):62–75.

The Business Standard (2024). Divorce Rate Declined in 2023: BBS. *The Business Standard*.

6 Tables

Table 1: Demographic characteristics

	Households		Men		Women	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
	(1)		(2)		(3)	
Muslim (%)	97.30	(16.25)				
Dependency ratio[a]	0.25	(0.19)				
Number of assets:[b]						
Mobile phone	2.42	(1.10)				
Television	0.78	(0.55)				
Cow/Buffalo	1.22	(1.53)				
Poultry	15.63	(14.50)				
Lives in household:						
Child under 5 years (%)	37.51	(48.44)				
Husband's mother (%)	20.00	(40.02)				
Husband's father (%)	11.98	(32.49)				
Wife's mother (%)	2.82	(16.58)				
Wife's father (%)	0.45	(6.71)				
Age (years)			42.69	(10.93)	35.39	(10.33)
Household head (%)			95.48	(20.79)	0.00	(0.00)
Spouse of household head (%)			0.00	(0.00)	95.48	(20.79)
Education:						
Less than primary (%)			15.03	(35.76)	19.32	(39.50)
Primary (%)			32.54	(46.88)	28.25	(45.05)
Secondary (%)			34.12	(47.44)	41.47	(49.30)
Higher-secondary or more (%)			18.30	(38.69)	10.96	(31.26)
Main occupation:						
Ag. self-employed (%)			78.53	(41.08)	4.07	(19.76)
Non-ag. self-employed (%)			11.19	(31.54)	1.13	(10.58)
Ag. wage labor (%)			1.58	(12.48)	0.68	(8.21)
Non-ag. wage labor (%)			6.78	(25.15)	1.36	(11.57)
Livestock rearing (%)			0.00	(0.00)	7.68	(26.65)
At home (%)			0.00	(0.00)	84.29	(36.41)
Other (%)			1.92	(13.73)	0.79	(8.86)
Observations	885		885		885	

Notes: Standard deviation in parentheses for mean outcomes.
[a] Dependency ratio was calculated as the ratio between the number of household members not of working age (below 15 and above 65 years) and the number of household members of working age (15 to 65 years).
[b] These numbers are as reported by the adult male member. There were minor differences between the numbers reported by men and women.

Table 2: Set of alternative lotteries presented to players, with corresponding risk levels.

Lottery Number (1)	Payoffs (2)	Gamma (γ) Range (3)	Gamma (γ) Midpoint (4)	Risk Aversion (5)
1	125 and 125	$[3.03, +\infty)$	3.03	Extremely averse
2	190 and 100	$[1.99, 3.03)$	2.51	Very averse
3	240 and 90	$[0.60, 1.99)$	1.30	Moderately averse
4	350 and 45	$[0.20, 0.60)$	0.40	Slightly averse
5	400 and 15	$[0.12, 0.20)$	0.16	Risk-neutral
6	450 and 0	$(-\infty, 0.12)$	0.12	Risk-seeking

Table 3: Example strategy of second-mover in *Joint* game.

First-mover's potential choice	Second-mover's stated choice
1	2
2	3
3	4
4	5
5	6
6	1

Table 4: Prediction error by male and female first-movers in the *Joint* game.

	Husbands		Wives		(2) - (1)	
	Mean	Std. Dev.	Mean	Std. Dev.	Difference	Std. Err.
	(1)		(2)		(3)	
Lottery Number Index (LNI):						
Error	-0.037	(2.095)	0.029	(2.274)	0.066	(0.110)
Abs. error	1.568***	(1.389)	1.743***	(1.460)	0.175***	(0.064)
Number of men	887		887			
Number of women	887		887			

Notes: *Error* takes integer values in $[-5, 5]$. Positive values indicate that the degree of risk aversion of the player was underestimated by their spouse, and negative values indicate overestimation. *Abs. error* takes integer values in $[0, 5]$ with higher values indicating greater deviation of spouse's predictions from actual choice. Heteroskedasticity robust standard errors in parentheses for differences in outcomes. Differences between husbands and wives and associated significance levels are based on OLS regression with household-level fixed effects. The statistical significance associated with the mean values of the variables are produced using t-test. * p<0.1, ** p<0.05, and *** p<0.01.

Table 5: Risk preferences (*RAP*) of men and women as elicited in the *Solo* and *Shared* Games

	Solo (γ_{Solo})		*Shared* (γ_{Shared})		(2) - (1)	
	Mean	Std. Dev.	Mean	Std. Dev.	Difference	Std. Err.[a]
	(1)		(2)		(3)	
Women	1.387	(1.215)	1.313	(1.148)	-0.074*	(0.044)
Men	1.416	(1.222)	1.289	(1.136)	-0.126***	(0.045)
	Mean	Std. Err.[b]				
Intrahousehold pref. divergence:						
$\left\lvert\gamma^{wife}_{Solo} - \gamma^{husband}_{Solo}\right\rvert$	1.203***	(0.037)				
$\left\lvert\gamma^{wife}_{Shared} - \gamma^{husband}_{Shared}\right\rvert$	1.184***	(0.034)				
Number of women	887					
Number of men	887					

Notes: γ is the risk aversion parameter associated with a CRRA utility function, higher values indicate greater risk aversion. γ^{wife}_{Solo} ($/\gamma^{wife}_{Shared}$) denotes the risk aversion parameter that characterizes the wife's choice in the *Solo* (/*Shared*) game. $\gamma^{husband}_{Solo}$ ($/\gamma^{husband}_{Shared}$) denotes the risk aversion parameter that characterizes the husband's choice in the *Solo* (/*Shared*) game. Standard deviation in parentheses for mean outcomes. * p<0.1, ** p<0.05, and *** p<0.01.

[a] Differences between games and associated significance levels are based on OLS regression with individual-level fixed effects. Heteroskedasticity robust standard errors reported in parentheses.

[b] Reported mean and standard error are from one-sample t-test.

Table 6: *Strategy* variable: Actual and expected.

	Actual		Expected		(2) - (1)	
	Mean	Std. Dev.	Mean	Std. Dev.	Difference	Std. Err.
	(1)		(2)		(3)	
Men	0.184	(0.530)	0.355	(0.488)	0.171***	(0.023)
Women	0.321	(0.500)	0.267	(0.511)	-0.054**	(0.023)
Difference	-0.137***		0.088***			
Std. Err.	(0.024)		(0.024)			
Number of men	887		887			
Number of women	887		887			

Notes: The *Strategy* variable takes values in $[-1, 1]$. Positive values indicate that the riskiness of second mover's choices co-move with the first mover's and negative values indicate that a second mover who tries to counter their spouse's choice. Standard errors and significance levels are based on t-tests. * p<0.1, ** p<0.05, and *** p<0.01.

Table 7: Results from regression of coordination error (*Error*) by first-movers in the *Joint* game on risk preference disparity in household and strategy of members.

	Husbands				Wives			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Error\ (= E_1(L_2) - L_2)$								
$LNI^{self}_{Shared} - LNI^{spouse}_{Shared}$	0.141***	0.139***	0.181***	0.181***	0.185***	0.186***	0.210***	0.210***
	(0.032)	(0.032)	(0.045)	(0.045)	(0.035)	(0.035)	(0.047)	(0.047)
LNI^{self}_{Shared}			-0.083	-0.083			-0.050	-0.050
			(0.060)	(0.060)			(0.065)	(0.065)
Spouse *Strategy*		0.092	0.065	0.065		0.037	0.034	0.034
		(0.148)	(0.150)	(0.150)		(0.153)	(0.153)	(0.153)
Strategy		0.003	-0.001	-0.001		0.012	-0.004	-0.004
		(0.138)	(0.138)	(0.138)		(0.159)	(0.160)	(0.160)
Constant	-0.039	-0.069	0.226	0.226	0.031	0.021	0.199	0.199
	(0.070)	(0.095)	(0.220)	(0.220)	(0.075)	(0.102)	(0.250)	(0.250)
Controls	No	No	No	Yes	No	No	No	Yes
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.061	0.061	0.063	0.063	0.086	0.086	0.087	0.087
Observations	885	885	885	885	885	885	885	885

Notes: *Error* takes integer values in $[-5, 5]$. Positive values indicate that the degree of risk aversion of the player was underestimated by their spouse, and negative values indicate overestimation. Controls include age, education, and occupation of player and spouse, dependency ratio, number of children under 5 in household, the presence of in-laws in household and a wealth index created as mean response of wife to questions about assets owned by household. The full table is presented in the appendix Table (B.2). Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table 8: Results from regression of absolute value of coordination error (*Abs. error*) by first-movers in the *Joint* game on risk preference disparity in household and strategy of members.

	Husbands				Wives			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Abs.\ error = \lvert E_1(L_2) - L_2 \rvert$								
$\left\lvert LNI^{self}_{Shared} - LNI^{spouse}_{Shared} \right\rvert$	0.073**	0.061*	0.057*	0.045	0.057	0.038	0.040	0.046
	(0.034)	(0.034)	(0.034)	(0.034)	(0.036)	(0.035)	(0.035)	(0.035)
LNI^{self}_{Shared}			0.049*	0.046			-0.063**	-0.052
			(0.029)	(0.029)			(0.031)	(0.032)
Spouse *Strategy*		-0.434***	-0.427***	-0.428***		-0.692***	-0.692***	-0.666***
		(0.096)	(0.096)	(0.096)		(0.093)	(0.092)	(0.096)
Strategy		-0.235***	-0.231**	-0.215**		-0.250**	-0.280***	-0.272***
		(0.091)	(0.091)	(0.092)		(0.098)	(0.098)	(0.101)
Constant	1.437***	1.642***	1.478***	1.515***	1.643***	1.884***	2.105***	1.895***
	(0.075)	(0.088)	(0.124)	(0.468)	(0.081)	(0.089)	(0.140)	(0.484)
Controls	No	No	No	Yes	No	No	No	Yes
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.047	0.080	0.083	0.120	0.064	0.134	0.138	0.165
Observations	885	885	885	885	885	885	885	885

Notes:*Abs. error* takes integer values in $[0, 5]$ with higher values indicating greater deviation of spouse's predictions from actual choice. Controls include age, education, and occupation of player and spouse, dependency ratio, number of children under 5 in household, the presence of in-laws in household and a wealth index created as mean response of wife to questions about assets owned by household. The full table is presented in the appendix Table (B.3). Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table 9: Results from regression of individual's *Strategy* as second-mover on own and spouse characteristics.

	Husbands		Wives	
	(1)	(2)	(3)	(4)
Strategy				
Spouse *Strategy*	0.090**	0.074*	0.081**	0.068**
	(0.037)	(0.039)	(0.033)	(0.034)
$\left\lvert LNI^{self}_{Shared} - LNI^{spouse}_{Shared}\right\rvert$.	-0.018	-0.020	-0.013	-0.012
	(0.013)	(0.013)	(0.012)	(0.012)
LNI^{self}_{Shared}	-0.009	-0.009	-0.043***	-0.049***
	(0.011)	(0.011)	(0.010)	(0.011)
Conscientious	0.019	0.016	0.064***	0.064***
	(0.019)	(0.020)	(0.018)	(0.018)
Extraverted	-0.001	0.006	-0.067***	-0.059***
	(0.023)	(0.023)	(0.020)	(0.021)
Agreeable	-0.007	-0.003	-0.003	-0.001
	(0.019)	(0.020)	(0.020)	(0.020)
Open to new	0.042***	0.041***	-0.008	-0.015
	(0.014)	(0.015)	(0.013)	(0.014)
Neuroticism	-0.002	-0.003	0.003	0.008
	(0.017)	(0.017)	(0.014)	(0.014)
Constant	-0.047	0.194	0.448***	0.439*
	(0.186)	(0.267)	(0.163)	(0.235)
Village FEs	Yes	Yes	Yes	Yes
R-squared	0.091	0.122	0.109	0.143
Observations	885	885	885	885

Notes: The *Strategy* variable takes values in $[-1, 1]$. Positive values indicate that the riskiness of second mover's choices co-move with the first mover's and negative values indicate that a second mover who tries to counter their spouse's choice. Additional controls were added for age and education of player and spouse, and presence of in-laws in household but are not displayed. The full table is presented in the appendix Table B.4. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table 10: Results from regression of error in predicting savings made by spouse on errors made in *Joint* game for women.

	Correct (= 1)		Overestimates (= 1)		Underestimates (= 1)	
	(1)	(2)	(3)	(4)	(5)	(6)
Error	-0.013*	-0.013*	0.015**	0.014**	-0.003	-0.001
	(0.008)	(0.008)	(0.007)	(0.007)	(0.004)	(0.004)
$\gamma^{own}_{Shared} - \gamma^{spouse}_{Shared}$	0.000	0.001	0.010	0.011	-0.010	-0.012
	(0.015)	(0.015)	(0.014)	(0.013)	(0.009)	(0.009)
γ^{own}_{Shared}	-0.040*	-0.040*	0.018	0.018	0.022*	0.022*
	(0.020)	(0.021)	(0.019)	(0.019)	(0.013)	(0.013)
Spouse *Strategy*	0.051	0.055*	-0.022	-0.018	-0.029	-0.037*
	(0.032)	(0.032)	(0.029)	(0.030)	(0.019)	(0.019)
Strategy	-0.097***	-0.107***	0.084***	0.096***	0.013	0.011
	(0.034)	(0.033)	(0.032)	(0.032)	(0.021)	(0.021)
Constant	0.700***	0.401**	0.230***	0.461***	0.070***	0.138
	(0.032)	(0.159)	(0.030)	(0.150)	(0.018)	(0.094)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.077	0.137	0.077	0.128	0.072	0.115
Observations	885	885	885	885	885	885

Notes: Husbands and wives were asked if either “you or your husband made any savings in the past 12 months?” If a person reported their spouse as having savings when their spouse reported not it was taken to be an overestimation, and if a person reported their spouse as not having savings when their spouse reported having savings it was taken to be an overestimation. Controls include age, education, and occupation of player and spouse, dependency ratio, number of children under 5 in household, the presence of in-laws in household and a wealth index created as mean response of wife to questions about assets owned by household. The full table is presented in appendix Table B.5. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table 11: Results from regression of error in predicting savings made by spouse on errors made in *Joint* game for men.

	Correct (= 1)		Overestimates (= 1)		Underestimates (= 1)	
	(1)	(2)	(3)	(4)	(5)	(6)
Error	-0.005	-0.003	0.000	-0.001	0.005	0.005
	(0.008)	(0.008)	(0.006)	(0.006)	(0.006)	(0.006)
$\gamma^{own}_{Shared} - \gamma^{spouse}_{Shared}$	0.011	0.020	-0.017	-0.024**	0.006	0.004
	(0.015)	(0.015)	(0.012)	(0.012)	(0.012)	(0.012)
γ^{own}_{Shared}	-0.015	-0.023	0.013	0.020	0.001	0.003
	(0.021)	(0.021)	(0.016)	(0.016)	(0.016)	(0.016)
Spouse *Strategy*	-0.010	-0.011	-0.008	-0.004	0.018	0.015
	(0.034)	(0.034)	(0.028)	(0.028)	(0.025)	(0.025)
Strategy	0.021	0.010	-0.019	-0.013	-0.002	0.004
	(0.032)	(0.032)	(0.025)	(0.025)	(0.025)	(0.025)
Constant	0.681***	0.760***	0.156***	0.257**	0.164***	-0.018
	(0.032)	(0.164)	(0.025)	(0.117)	(0.025)	(0.134)
Controls	No	Yes	No	Yes	No	Yes
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.042	0.087	0.059	0.102	0.069	0.099
Observations	885	885	885	885	885	885

Notes: Husbands and wives were asked if either "you or your husband made any savings in the past 12 months?" If a person reported their spouse as having savings when their spouse reported not it was taken to be an overestimation, and if a person reported their spouse as not having savings when their spouse reported having savings it was taken to be an overestimation. Controls include age, education, and occupation of player and spouse, dependency ratio, number of children under 5 in household, the presence of in-laws in household and a wealth index created as mean response of wife to questions about assets owned by household. The full table is presented in appendix Table B.6. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table 12: Results from regression of the difference in number of livestock assets reported by women from their husband's report on the errors made by men and women in *Joint* game.

	(1)	(2)
Wife: *Livestock* - Husband: *Livestock*		
Wife *Error*	0.420**	0.371**
	(0.184)	(0.184)
Husband *Error*	0.091	0.137
	(0.180)	(0.183)
γ^{wife}_{Shared}	0.182	0.475
	(0.402)	(0.409)
$\gamma^{husband}_{Shared}$	-0.352	-0.400
	(0.370)	(0.361)
Wife *Strategy*	1.646*	1.772**
	(0.914)	(0.881)
Husband *Strategy*	-0.041	0.302
	(0.737)	(0.739)
Constant	-2.755***	-3.639
	(0.879)	(4.170)
Controls	No	Yes
Village FEs	Yes	Yes
R-squared	0.064	0.145
Observations	879	879

Heteroskedasticity robust SEs in parentheses.

* for p<0.1, ** for p<0.05, and *** for p<0.01.

Notes: Husbands and wives were each asked to report the number of cow/buffalo, goat/sheep, and poultry owned by the household. The dependent variable is created by differencing the number reported by the husband from the number reported by his wife. Controls include age, education, and occupation of player and spouse, dependency ratio, number of children under 5 in household, the presence of in-laws in household and a wealth index created as mean response of wife to questions about assets owned by household. The full table is presented in appendix Table **??**. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

7 Figures

Figure 1: Distribution of decision-making powers in sample households as reported by women.

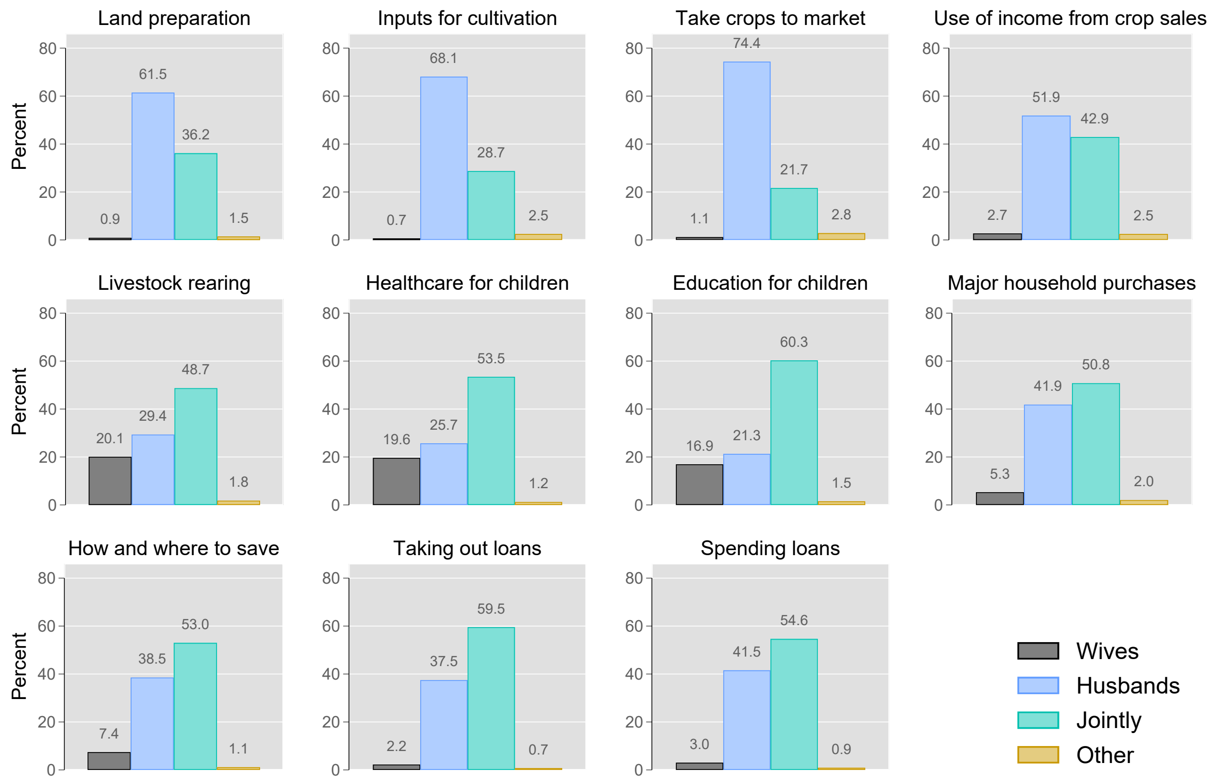


Figure 2: Game tree for the *Joint* game.

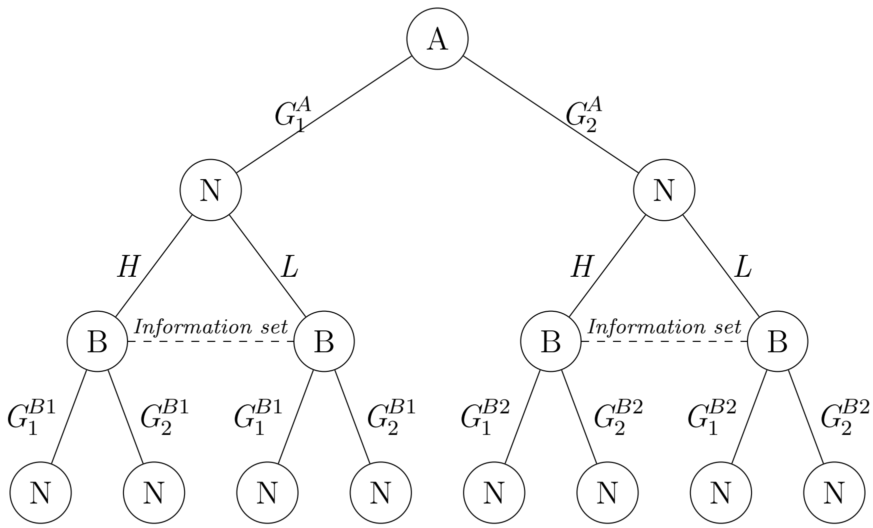


Figure 3: Sequence of games faced by men and women.

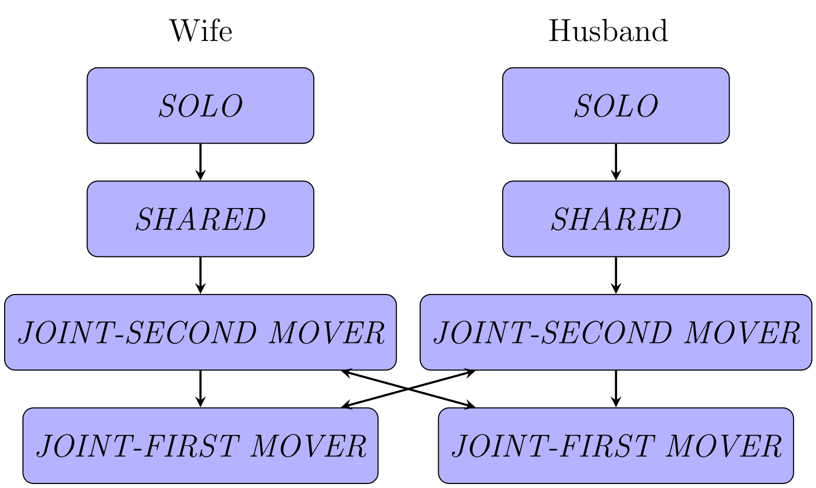
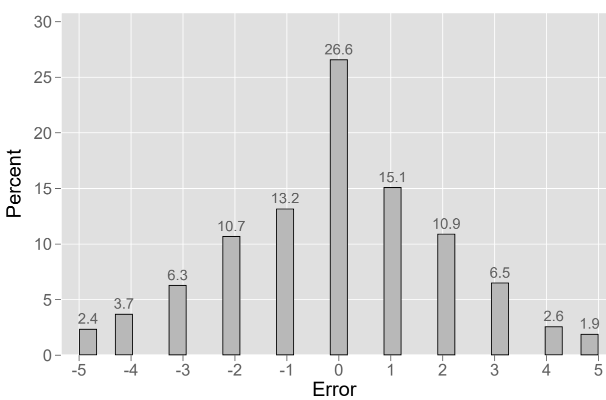
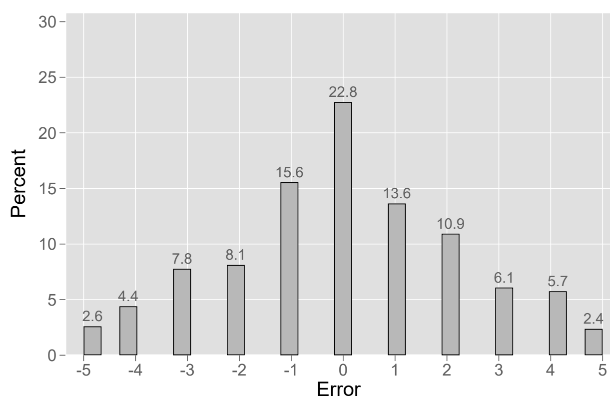


Figure 4: Distributions of the *Error* and *Abs. error* variables for men and women first movers.

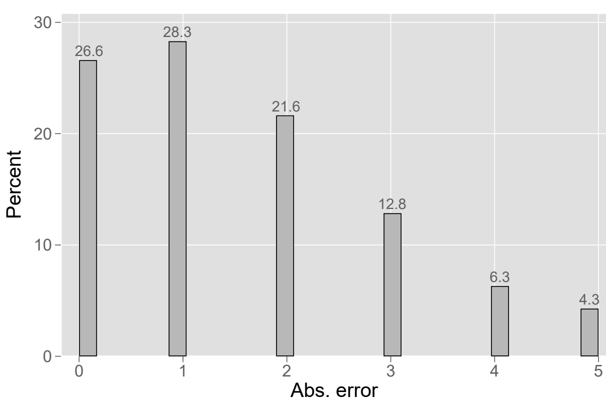
(a) Men: *Error*



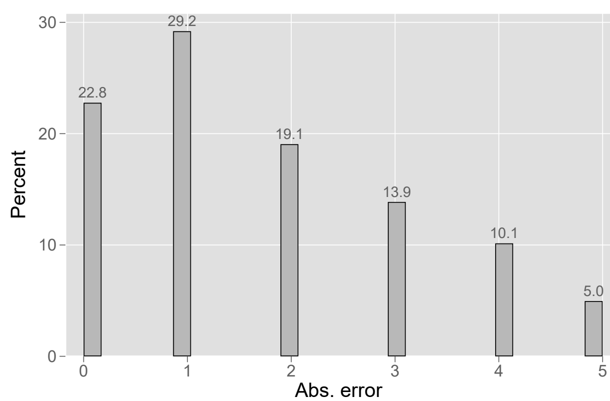
(b) Women: *Error*



(c) Men: *Abs. error*



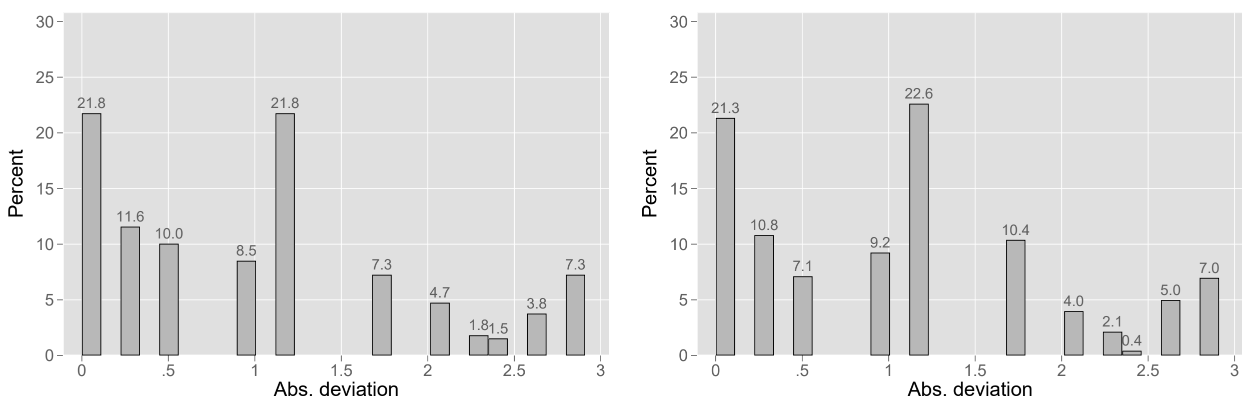
(d) Women: *Abs. error*



Notes: *Error* takes integer values in $[-5, 5]$. Positive values indicate that the degree of risk aversion of the player was underestimated by their spouse, and negative values indicate overestimation. *Abs. error* takes integer values in $[0, 5]$ with higher values indicating greater deviation in predictions from spouse's actual choice.

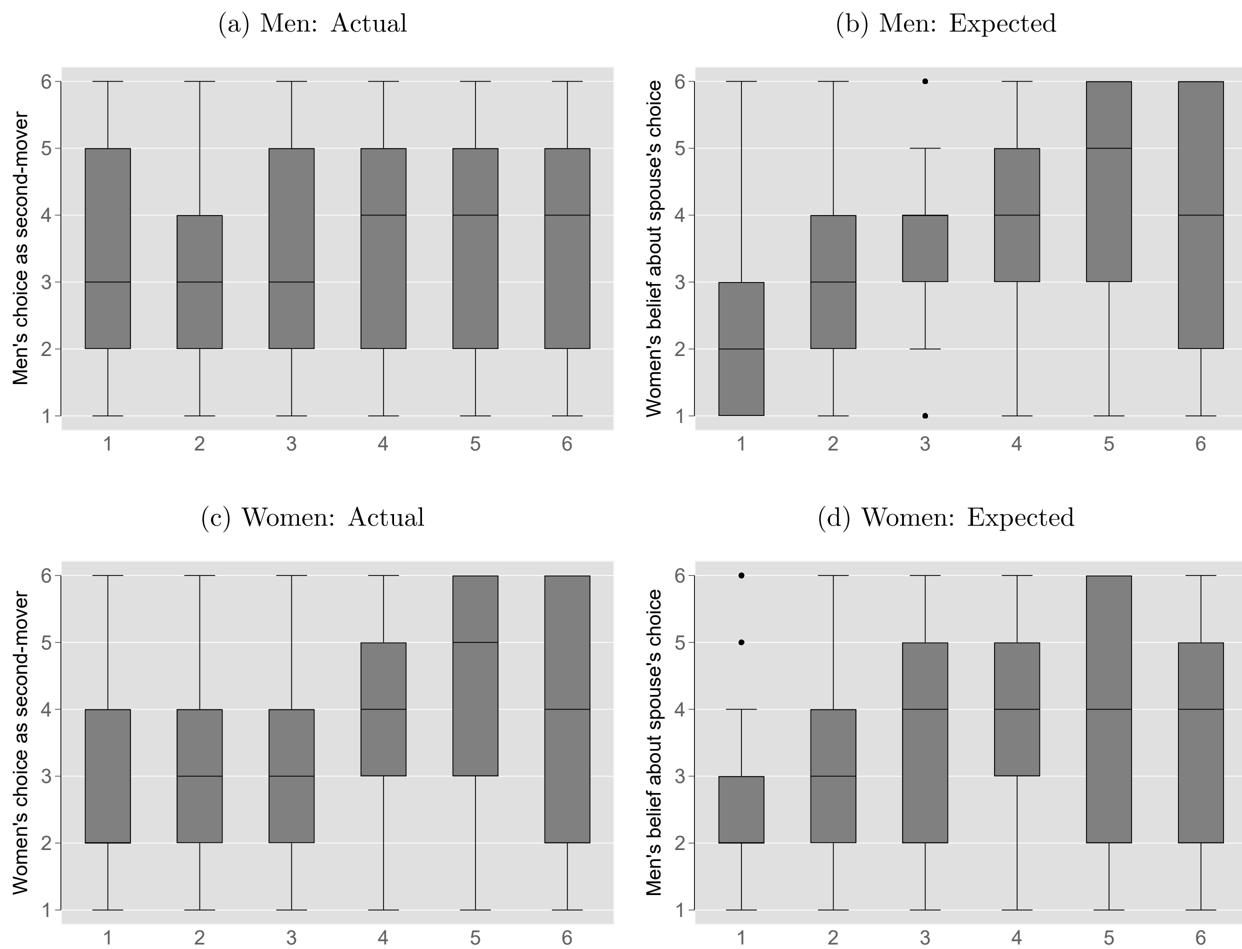
Figure 5: Distribution of the absolute deviation of the risk exposure level achieved by first-movers in the *Joint* game (γ_{Joint}) from their preferred level revealed in the *Shared* game (γ_{Shared}).

(a) Men: $|\gamma_{Shared} - \gamma_{Joint}|$ (b) Women: $|\gamma_{Shared} - \gamma_{Joint}|$



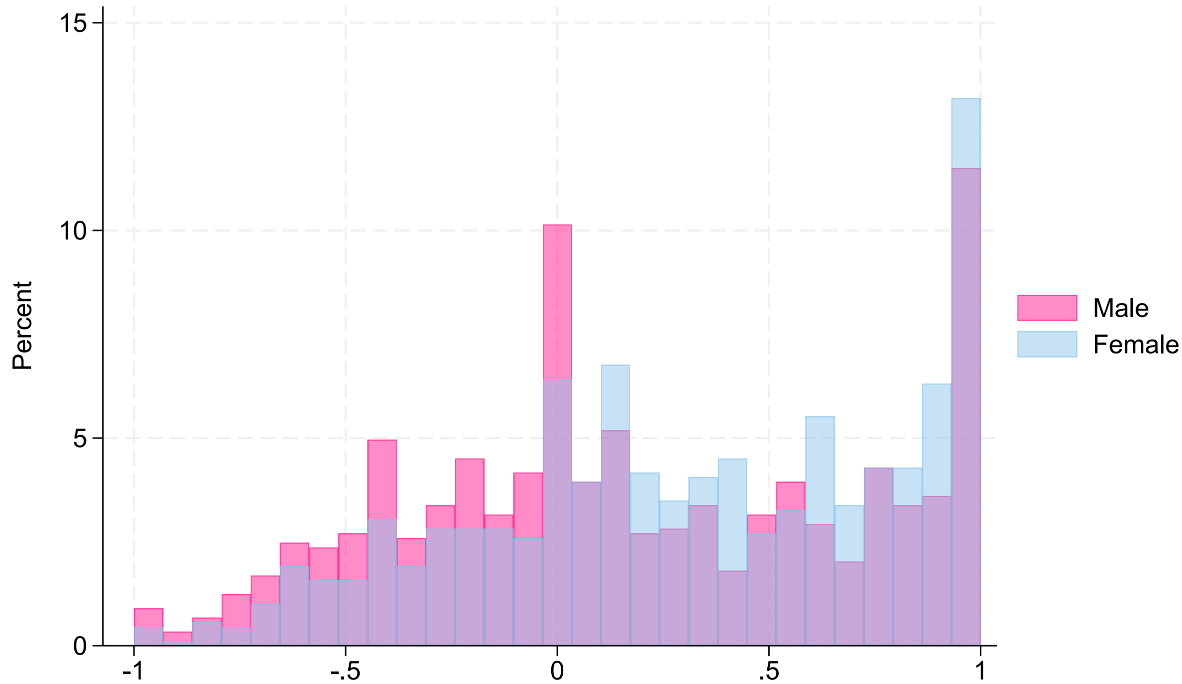
Notes: γ_{Shared} is the risk aversion parameter calculated on the basis of a player's lottery choice in the *Shared* game. γ_{Joint} represent the risk exposure level achieved by a first-mover in the *Joint* game. Section 3.3.2 details how these variables are constructed. γ_{Joint} could be constructed from 717 (81%) of male first-movers and 703 (79%) of female first-movers.

Figure 6: Actual and expected choices of second-movers in the *Joint* game.



Notes: The *Strategy* variable takes values in $[-1, 1]$. Positive values indicate that the riskiness of second mover's choices co-move with the first mover's and negative values indicate that a second mover who tries to counter their spouse's choice.

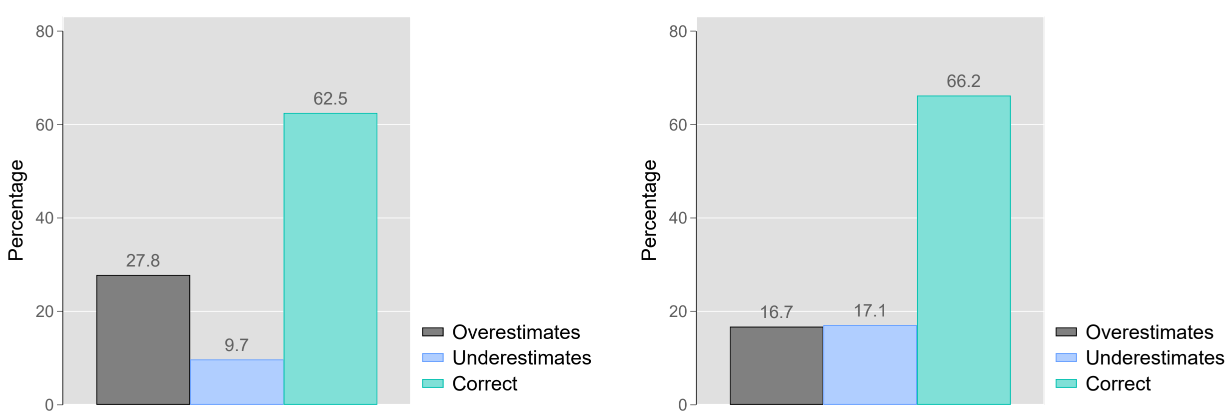
Figure 7: Distribution of the *Strategy* variable among sample of women and men second-movers.



Notes: The *Strategy* variable takes values in $[-1, 1]$. Positive values indicate that the riskiness of second mover's choices co-move with the first mover's and negative values indicate that a second mover who tries to counter their spouse's choice.

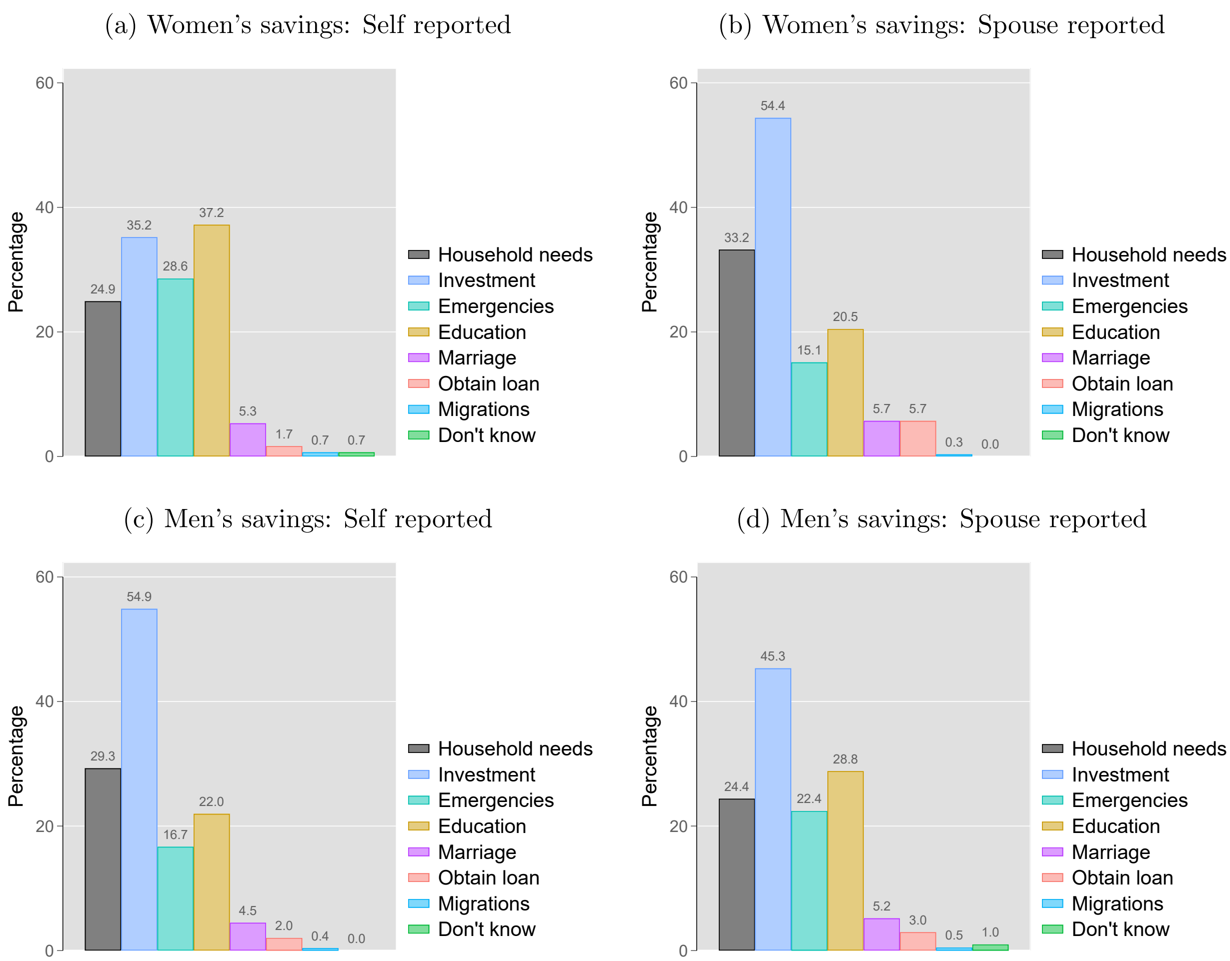
Figure 8: Reported savings behavior of men and women.

(a) Women reported (b) Men reported



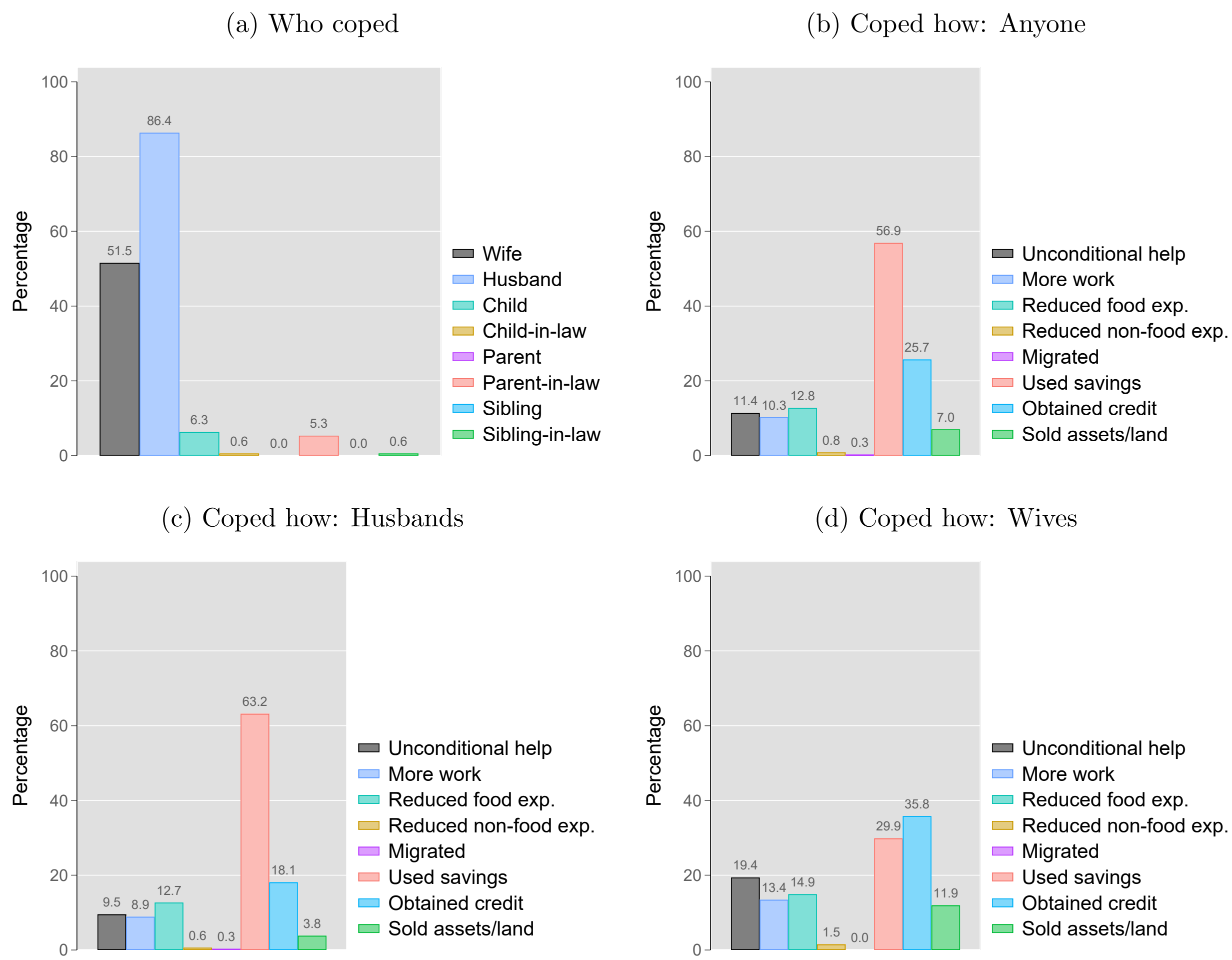
Notes: Husbands and wives were asked if either "you or your husband made any savings in the past 12 months?" If a person reported their spouse as having savings when their spouse reported not it was taken to be an overestimation, and if a person reported their spouse as not having savings when their spouse reported having savings it was taken to be an overestimation.

Figure 9: Reported purpose for maintaining savings of men and women.



Notes: If a person reported either themselves or their spouse as having made savings in the past 12 months, they were asked the top two reasons for maintaining the savings.

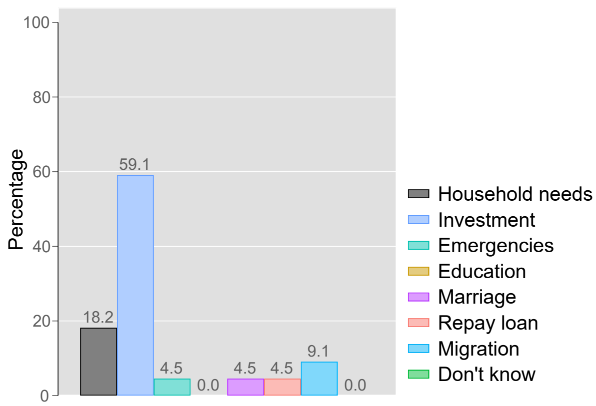
Figure 10: Shocks to the household: who coped and how.



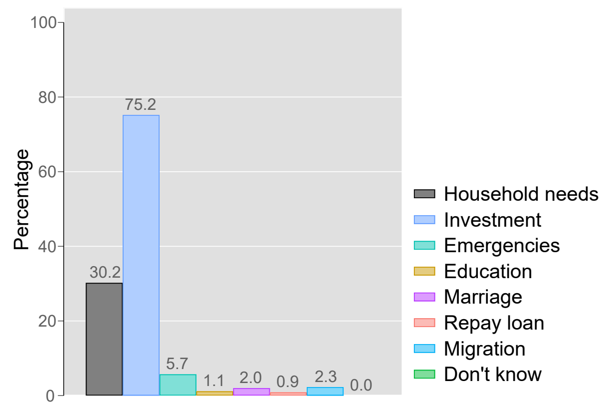
Notes: Women were asked to report if in the past 12 months the household had been adversely affected any of the following shocks: weather events, natural disasters, serious illness or death of an earning member, serious illness or death of other, or the July-August political revolution. Panel a shows the distribution of household members who primarily helped cope with the shock across all shocks. Panel b shows the distribution of the measures used to cope across all shocks. Panel c shows the same distribution but only for the shocks where the husband was one of the members who primarily helped cope but not the wife. 315 out of 712 shocks reported fit this description. Panel d shows the the same distribution but for the shocks where the wife was one of the members who primarily helped cope but not the husband. 67 out of 712 reported shocks fit this description. A household may have multiple shocks during the past 12 months.

Figure 11: Reported purpose for obtaining loan of men and women.

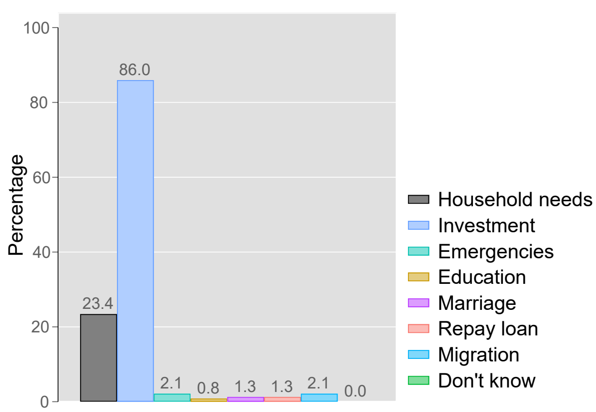
(a) Women's loans: Self reported



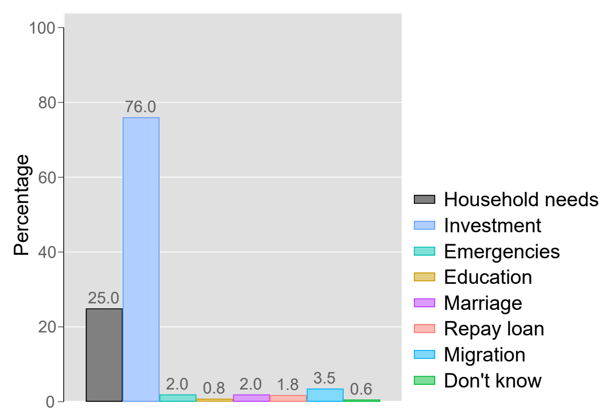
(b) Women's loans: Spouse reported



(c) Men's loans: Self reported



(d) Men's loans: Spouse reported



Notes: Respondents were asked to report how many active loans the household had in the past 12 months, the primary decision-maker for each loan, the purpose for each loan, and the source from which they were obtained. If a person reported the household having any, they were asked the top two reasons for taking the loan.

Appendix A: Conceptual Framework

This section presents a simple conceptual framework to describe the decision-making process between couples in the experiment. We start with a basic model of sequential household decision making where:

- The **first-mover** (H) who has initial wealth M_H chooses what share (x_H) of it to allocate to a risky investment with returns: $X \sim f_X$.
- The **second-mover** (W) observes x_H and then chooses their investment allocation x_W into the risky investment.
- Each spouse **only maximizes their own expected utility** and this does not depend on the other's preferences.
- There is a sharing rule in the household such that the **second-mover shares** λ_W **share of their earnings with the spouse** and the **first-mover shares** λ_H **share of their earnings with the spouse.**

A.1 Earnings

Each spouse's earnings is a random variable given by sum of earnings from the investment and any money not invested:

First-mover:

$$y_H = x_H M_H X + (1 - x_H) M_H \tag{A.1}$$

Second-mover:

$$y_W = x_W M_W X + (1 - x_W) M_W \tag{A.2}$$

A.2 Consumption with Sharing Rule

Each spouse's consumption incorporates a fraction of the other's earnings:

First-mover:

$$c_H = (1 - \lambda_H) y_H + \lambda_W y_W \tag{A.3}$$

Second-mover:

$$c_W = (1 - \lambda_W) y_W + \lambda_H y_H \tag{A.4}$$

A.3 Preferences

Each individual i maximizes a CRRA utility which is a function of their own consumption:

$$U_i(c) = \frac{c_i^{1-\rho_i}}{1 - \rho_i}, \text{ for } i = H, W \tag{A.5}$$

where $\rho_i \neq 1$.

A.4 Second Mover's Optimization Problem

The second-mover maximizes:

$$\max_{x_W \in [0,1]} \quad E\left[U_W(y_W, y_H)\right] = E\left[\frac{((1-\lambda_W)y_W + \lambda_H y_H)^{1-\rho_W}}{1-\rho_W}\right]. \tag{A.6}$$

The first-order condition is[7]:

$$\begin{aligned}
\frac{\partial}{\partial x_W} E\left[\frac{c_W^{1-\rho_W}}{1-\rho_W}\right] &= 0 \\
\implies E\left[(c_W)^{-\rho_W}(1-\lambda_W)M_W(X-1)\right] &= 0 \\
\implies (1-\lambda_W)M_W E\left[(c_W)^{-\rho_W}(X-1)\right] &= 0 \\
\implies E\left[(c_W)^{-\rho_W}(X-1)\right] &= 0 \qquad \text{(A.7)}
\end{aligned}$$

This defines $x_W^*(x_H)$, the second mover's best response and so also $y_W^*(x_W^*(x_H))$.

$$y_W^*(x_H) = x_W^*(x_H)M_W X + (1 - x_W^*(x_H))M_W \tag{A.8}$$

$$\implies \frac{dy_W^*(x_H)}{dx_H} = M_W(X-1)\frac{dx_W^*(x_H)}{dx_H} \tag{A.9}$$

A.4.1 Implicit Function Theorem to calculate $\frac{dx_W^*}{dx_H}$:

Rewriting F.O.C. in equation (A.7) as:

$$F(x_W, x_H) = (1-\lambda_W)M_W E\left[(c_W)^{-\rho_W}(X-1)\right] = 0 \tag{A.10}$$

Using IFT:

$$\frac{dx_W^*}{dx_H} = -\frac{\frac{\partial F}{\partial x_H}}{\frac{\partial F}{\partial x_W}} \tag{A.11}$$

$$\tag{A.12}$$

$$\frac{\partial F}{\partial x_H} = -(1-\lambda_W)M_W E[\rho_W (c_W)^{-\rho_W - 1}(X-1)\frac{\partial c_W}{\partial x_H}] \tag{A.13}$$

[7]In order to exchange the derivative and expectations operators, it is necessary that the conditions for the Dominated Convergence Rule hold (Casella and Berger, 2024). I assume that this condition is satisfied for each function within the expectation operator in this section.

$$\frac{\partial F}{\partial x_W} = -(1-\lambda_W)M_W E[\rho_W (c_W)^{-\rho_W - 1}(X-1)\frac{\partial c_W}{\partial x_W}] \tag{A.14}$$

Where,

$$\frac{\partial c_W}{\partial x_H} = \frac{\partial}{\partial x_H}[(1-\lambda_W)y_W + \lambda_H y_H] = \lambda_H M_H (X-1) \tag{A.15}$$

$$\frac{\partial c_W}{\partial x_W} = \frac{\partial}{\partial x_W}[(1-\lambda_W)y_W + \lambda_H y_H] = (1-\lambda_W) M_W (X-1) \tag{A.16}$$

Substituting equation (A.15) in (A.13) and equation (A.16) in (A.14),

$$\frac{\partial F}{\partial x_H} = -(1-\lambda_W)\lambda_H M_W M_H \rho_W E[(c_W)^{-\rho_W - 1}(X-1)^2] \tag{A.17}$$

$$\frac{\partial F}{\partial x_W} = -(1-\lambda_W)^2 M_W^2 \rho_W E[(c_W)^{-\rho_W - 1}(X-1)^2] \tag{A.18}$$

From equations (A.11), (A.17), and (A.18),

$$\frac{dx_W^*}{dx_H} = -\frac{-(1-\lambda_W)\lambda_H M_W M_H \rho_W E[(c_W)^{-\rho_W - 1}(X-1)^2]}{-(1-\lambda_W)^2 M_W^2 \rho_W E[(c_W)^{-\rho_W - 1}(X-1)^2]}$$

Simplifying,

$$\boxed{\frac{dx_W^*}{dx_H} = -\frac{\lambda_H M_H}{(1-\lambda_W)M_W}} \tag{A.19}$$

Given $\lambda_W < 1$, $\frac{dx_W^*}{dx_H} < 0$, implying that the second mover reduces the share of own income invested in the risky asset in response to higher investment by the first mover. Further, the derivative is equal to the ratio between the amount of earnings shared by the first-mover and the amount of earnings retained by the second-mover. Thus, for couples which share a larger fraction of earnings with each other the responsiveness of the second-mover's strategy to the first-mover's choice is greater.

So, from equations (A.43) and (A.19) we have:

$$\begin{aligned}\frac{dy^*_W(x_H)}{dx_H} &= M_W(X-1)\frac{dx^*_W(x_H)}{dx_H} \\ &= -\frac{\lambda_H M_H(X-1)}{(1-\lambda_W)} \end{aligned} \tag{A.20}$$

Implicit Function Theorem to calculate $\frac{dx^*_W}{d\rho_W}$ Using IFT on second mover's F.O.C. in equation (A.44):

$$\frac{dx^*_W}{d\rho_W} = -\frac{\frac{\partial F}{\partial \rho_W}}{\frac{\partial F}{\partial x_W}} \tag{A.21}$$

$$\begin{aligned}\frac{\partial F}{\partial \rho_W} &= \frac{\partial}{\partial \rho_W}\left[(1-\lambda_W)M_W E\left\{(c_W)^{-\rho_W}(X-1)\right\}\right] \\ &= -(1-\lambda_W)M_W E[\ln c_W (c_W)^{-\rho_W}(X-1)] \end{aligned} \tag{A.22}$$

Thus, using the result from equation (A.18):

$$\frac{dx^*_W}{d\rho_W} = -\frac{-(1-\lambda_W)M_W E[(X-1)(c_W)^{-\rho_W}\ln c_W]}{-(1-\lambda_W)^2 M_W^2 \rho_W E[(c_W)^{-\rho_W-1}(X-1)^2]}$$

Simplifying,

$$\boxed{\frac{dx^*_W}{d\rho_W} = -\frac{1}{(1-\lambda_W)M_W\rho_W}\cdot\frac{E\left[(X-1)(c_W)^{-\rho_W}\ln c_W\right]}{E\left[(X-1)^2(c_W)^{-\rho_W-1}\right]}} \tag{A.23}$$

The second term on the RHS of equation (A.23) is a ratio between a term which captures how the marginal utility of the second-mover varies with respect to their degree of risk aversion and a term which is a kind of variance weighted utility measure. The first term is the inverse product of the share of own income that the second-mover retains ($(1-\lambda_W)M_W$) and the second-mover's risk aversion parameter. In the second term, the denominator which is a product of a squared term and a transformation of c_w (> 0) is non-negative. The numerator's is given by:

$$E\left[(X-1)(c_W)^{-\rho_W}\ln c_W\right] = -\frac{1}{(1-\lambda_W)M_W}\cdot\frac{\partial^2 E\left[U_W(y_W,y_H)\right]}{\partial\rho_W\partial x_W}$$

where $\frac{\partial^2 E[U_W(y_W,y_H)]}{\partial\rho_W\partial x_W}$ can be interpreted as the change in the marginal expected utility of the share of wealth in the risky asset due to an increase in the second mover's level of risk aversion. It stands to reason then that $\frac{\partial^2 E[U_W(y_W,y_H)]}{\partial\rho_W \partial x_W} < 0$. Therefore, the numerator, $E\left[(X-1)(c_W)^{-\rho_W}\ln c_W\right]$, is also non-negative in sign.

A.5 First Mover's Optimization Problem

The first mover anticipates $x^*_W(x_H)$ and maximizes:

$$\max_{x_H\in[0,1]} \quad E\left[U_H(y_W,y_H)\right] = E\left[\frac{((1-\lambda_H)y_H + \lambda_W y^*_W(x_H))^{1-\rho_H}}{1-\rho_H}\right]. \tag{A.24}$$

The first-order condition is:

$$(1-\lambda_H)M_H E\left[(c_H)^{-\rho_H}(X-1)\right] + \lambda_W E\left[(c_H)^{-\rho_H}\frac{dy^*_W}{dx_H}\right] = 0 \tag{A.25}$$

Substituting $\frac{dy^*_W(x_H)}{dx_H}$ from equation (A.20) in (A.25):

$$\begin{aligned}
(1-\lambda_H)M_H E\left[(c_H)^{-\rho_H}(X-1)\right] + \lambda_W E\left[(c_H)^{-\rho_H}\left\{-\frac{\lambda_H M_H(X-1)}{(1-\lambda_W)}\right\}\right] &= 0\\
\implies (1-\lambda_H)M_H E\left[(c_H)^{-\rho_H}(X-1)\right] - \frac{\lambda_W\lambda_H M_H}{1-\lambda_W}E\left[(c_H)^{-\rho_H}(X-1)\right] &= 0\\
\implies \left[(1-\lambda_H)M_H - \frac{\lambda_W\lambda_H M_H}{1-\lambda_W}\right]E\left[(c_H)^{-\rho_H}(X-1)\right] &= 0\\
\implies \frac{(1-\lambda_W-\lambda_H)M_H}{1-\lambda_W}E\left[(c_H)^{-\rho_H}(X-1)\right] &= 0 \qquad \text{(A.26)}
\end{aligned}$$

If $\lambda_H+\lambda_W = 1$ the F.O.C. (A.26) holds for all values of c_H and x_H. The condition $\lambda_H+\lambda_W = 1$ implies that the share of own income that individual i retains (λ_i) for themselves is equal to the share of the spouse j's income that is transferred to them $(1-\lambda_j)$ and vice versa. I make the assumption that $\lambda_H+\lambda_W \neq 1$ since it is necessary to derive analytical solutions to the comparative static conditions. Further, if $\lambda_H+\lambda_W > 1$, then at least one of λ_H and λ_W must be ≥ 0.5. I do not expect sharing between spouses to be that large in the present context, so I assume that $\lambda_H+\lambda_W < 1$.

A.5.1 Implicit Function Theorem to calculate $\frac{dx^*_H}{d\rho_W}$

Rewriting FOC as:

$$G(x_H,\rho_W) = \frac{(1-\lambda_W-\lambda_H)M_H}{1-\lambda_W}E\left[(c_H(x_H,\rho_W))^{-\rho_H}(X-1)\right] = 0. \tag{A.27}$$

Using IFT:

$$\frac{dx_H^*}{d\rho_W} = -\frac{\frac{\partial G}{\partial \rho_W}}{\frac{\partial G}{\partial x_H}} \tag{A.28}$$

$$\frac{\partial G}{\partial \rho_W} = \frac{(1-\lambda_W-\lambda_H)M_H}{1-\lambda_W} E\left[(X-1)(-\rho_H)(c_H)^{-\rho_H-1} \cdot \frac{\partial c_H}{\partial \rho_W}\right] \tag{A.29}$$

$$\frac{\partial G}{\partial x_H} = \frac{(1-\lambda_W-\lambda_H)M_H}{1-\lambda_W} E\left[(X-1)(-\rho_H)(c_H)^{-\rho_H-1} \cdot \frac{\partial c_H}{\partial x_H}\right] \tag{A.30}$$

Where,

$$\frac{\partial c_H}{\partial \rho_W} = \lambda_W \frac{dy_W^*}{d\rho_W} = \lambda_W M_W (X-1) \frac{dx_W^*}{d\rho_W} \tag{A.31}$$

$$\frac{\partial c_H}{\partial x_H} = (1-\lambda_H)\frac{\partial y_H}{\partial x_H} + \lambda_W \frac{dy_W^*}{dx_H} = (1-\lambda_H)M_H(X-1) + \lambda_W \frac{dy_W^*}{dx_H} \tag{A.32}$$

Substituting equation (A.23) in (A.31):

$$\begin{aligned}\frac{\partial c_H}{\partial \rho_W} &= \lambda_W M_W (X-1) \cdot \left[-\frac{1}{(1-\lambda_W)M_W\rho_W} \cdot \frac{E\left\{(X-1)(c_W)^{-\rho_W}\ln c_W\right\}}{E\left\{(X-1)^2(c_W)^{-\rho_W-1}\right\}}\right] \\ &= -\frac{\lambda_W(X-1)}{(1-\lambda_W)\rho_W} \cdot \frac{E\left[(X-1)(c_W)^{-\rho_W}\ln c_W\right]}{E\left[(X-1)^2(c_W)^{-\rho_W-1}\right]}\end{aligned} \tag{A.33}$$

Substituting equation (A.20) in (A.32):

$$\begin{aligned}\frac{\partial c_H}{\partial x_H} &= (1-\lambda_H)M_H(X-1) + \lambda_W \cdot \left[-\frac{\lambda_H M_H (X-1)}{(1-\lambda_W)}\right] \\ &= M_H(X-1) \cdot \left[(1-\lambda_H) - \frac{\lambda_W\lambda_H}{(1-\lambda_W)}\right] \\ &= \frac{M_H(1-\lambda_W-\lambda_H)(X-1)}{(1-\lambda_W)}\end{aligned} \tag{A.34}$$

Substituting equation (A.33) in (A.29):

$$
\begin{aligned}
\frac{\partial G}{\partial \rho_W} &= \frac{(1-\lambda_W-\lambda_H)M_H}{1-\lambda_W} E\left[(X-1)(-\rho_H)c_H^{-\rho_H-1}\cdot\left\{-\frac{\lambda_W(X-1)}{(1-\lambda_W)\rho_W}\cdot\frac{E\left[(X-1)(c_W)^{-\rho_W}\ln c_W\right]}{E\left[(X-1)^2(c_W)^{-\rho_W-1}\right]}\right\}\right] \\
&= \frac{(1-\lambda_W-\lambda_H)\lambda_W\rho_H M_H}{(1-\lambda_W)^2\rho_W}\cdot E\left[(X-1)^2 c_H^{-\rho_H-1}\right]\cdot\frac{E\left[(X-1)(c_W)^{-\rho_W}\ln c_W\right]}{E\left[(X-1)^2(c_W)^{-\rho_W-1}\right]} \\
&= \frac{(1-\lambda_W-\lambda_H)\lambda_W\rho_H M_H}{(1-\lambda_W)^2\rho_W}\cdot\frac{E\left[(X-1)(c_W)^{-\rho_W}\ln c_W\right]\cdot E\left[(X-1)^2 c_H^{-\rho_H-1}\right]}{E\left[(X-1)^2(c_W)^{-\rho_W-1}\right]} \qquad \text{(A.35)}
\end{aligned}
$$

Substituting equation (A.34) in (A.30):

$$
\begin{aligned}
\frac{\partial G}{\partial x_H} &= \frac{(1-\lambda_W-\lambda_H)M_H}{1-\lambda_W}\cdot E\left[(X-1)(-\rho_H)(c_H)^{-\rho_H-1}\cdot\left\{\frac{M_H(1-\lambda_W-\lambda_H)(X-1)}{(1-\lambda_W)}\right\}\right] \\
&= -\frac{(1-\lambda_W-\lambda_H)^2 M_H^2\rho_H}{(1-\lambda_W)^2}\cdot E\left[(X-1)^2(c_H)^{-\rho_H-1}\right] \qquad \text{(A.36)}
\end{aligned}
$$

Substituting equations (A.35) and (A.36) in (A.28):

$$
\frac{dx_H^*}{d\rho_W} = -\frac{\frac{(1-\lambda_W-\lambda_H)\lambda_W\rho_H M_H}{(1-\lambda_W)^2\rho_W}\cdot\frac{E\left[(X-1)^2(c_W)^{-\rho_W}\ln c_W\right]\cdot E\left[(X-1)^2 c_H^{-\rho_H-1}\right]}{E\left[(X-1)^2(c_W)^{-\rho_W-1}\right]}}{-\frac{(1-\lambda_W-\lambda_H)^2 M_H^2\rho_H}{(1-\lambda_W)^2}\cdot E\left[(X-1)^2(c_H)^{-\rho_H-1}\right]}
$$

Simplifying,

$$
\boxed{\frac{dx_H^*}{d\rho_W} = \frac{\lambda_W}{(1-\lambda_W-\lambda_H)M_H\rho_W}\cdot\frac{E\left[(X-1)(c_W)^{-\rho_W}\ln c_W\right]}{E\left[(X-1)^2(c_W)^{-\rho_W-1}\right]}} \qquad \text{(A.37)}
$$

Using the result from equation (A.23) in (A.37):

$$
\frac{dx_H^*}{d\rho_W} = \frac{\lambda_W}{(1-\lambda_W-\lambda_H)M_H\rho_W}\cdot\left[-(1-\lambda_W)M_W\rho_W\right]\cdot\frac{dx_W^*}{d\rho_W} = -\frac{\lambda_W(1-\lambda_W)M_W}{(1-\lambda_W-\lambda_H)M_H}\cdot\frac{dx_W^*}{d\rho_W} \qquad \text{(A.38)}
$$

Equation (A.37) implies as the degree of risk aversion of the second mover increases ($\rho_W \uparrow$) the first mover should increase their allocation into the risky asset. Further this implies that a first mover who overestimates the second mover's degree of risk aversion will overinvest in the risky asset while a first mover who underestimates the second mover's degree of risk aversion will underinvest in the risky asset.

Predictions from the model:

1. Equation (A.19) predicts that the second mover should choose safer lotteries as the first mover's choice grows progressively riskier. Thus, the *Strategy* variable for the second mover should be negative in sign.

$$\boxed{\frac{dx_W^*}{dx_H} = -\frac{\lambda_H M_H}{(1-\lambda_W)M_W}}$$

   Also as the fraction of income that the first-mover shares with the second-mover, λ_H, falls the sensitivity of the second-mover's choice to the first-mover's choice falls. The joint decision in the game artificially sets $\lambda_H = \lambda_W = 0.5$. However, if player's lived experience in the household influences their choices in the game the actual value of λ_H may be different. In our context, where men are in control of most household financial resources while most women do not possess independent income sources it is possible that the actual value of λ_H for men is closer to zero than for women.

2. Equation (A.37) implies that first movers who overestimate the second mover's degree of risk aversion overinvest in the risky asset whereas first mover who underestimate the second mover's degree of risk aversion underinvest in the risky asset.

A.6 Addendum: Aligning with First Mover

While the first mover does not know what their spouse as second mover chooses, the second mover does know what their spouse's choice is. This knowledge can affect how second movers choose especially women. There is evidence that in patriarchal societies, women are more likely than men to defer to their spouses in decisions (Abbink et al., 2020). To reflect this behavior, we modify the second mover's utility function as follows:

$$U_W(c_W, x_H, x_W) = \frac{c_W^{1-\rho_W}}{1-\rho_W} - \delta(x_H - x_W)^2 \tag{A.39}$$

where δ is a non-negative constant reflecting to what degree the second mover "dislikes" diverging from the first mover's choices.

A.6.1 Second Mover's New Optimization Problem

The second mover maximizes:

$$\max_{x_W \in [0,1]} \quad E\left[U_W(y_W, y_H)\right] = E\left[\frac{((1-\lambda_W)y_W + \lambda_H y_H)^{1-\rho_W}}{1-\rho_W} - \delta(x_H - x_W)^2\right]. \tag{A.40}$$

The first-order condition is:

$$
\begin{aligned}
&\frac{\partial}{\partial x_W}\left[E\left\{\frac{c_W^{1-\rho_W}}{1-\rho_W}\right\}-\delta(x_H-x_W)^2\right]=0\\
\implies\ & E\left[(c_W)^{-\rho_W}(1-\lambda_W)M_W(X-1)\right]+2\delta(x_H-x_W)=0\\
\implies\ & (1-\lambda_W)M_W E\left[(c_W)^{-\rho_W}(X-1)\right]+2\delta(x_H-x_W)=0 \qquad \text{(A.41)}
\end{aligned}
$$

This defines $x_W^*(x_H)$, the wife's best response and so also $y_W^*(x_W^*(x_H))$.

$$
y_W^*(x_H)=x_W^*(x_H)M_W X+(1-x_W^*(x_H))M_W \qquad \text{(A.42)}
$$

$$
\implies \frac{dy_W^*(x_H)}{dx_H}=M_W(X-1)\frac{dx_W^*(x_H)}{dx_H} \qquad \text{(A.43)}
$$

A.6.2 IFT to find $\frac{dx_W^*}{dx_H}$

Rewriting F.O.C. in equation (A.41) as:

$$
F(x_W,x_H)=(1-\lambda_W)M_W E\left[(c_W)^{-\rho_W}(X-1)\right]+2\delta(x_H-x_W)=0 \qquad \text{(A.44)}
$$

Using IFT:

$$
\frac{dx_W^*}{dx_H}=-\frac{\frac{\partial F}{\partial x_H}}{\frac{\partial F}{\partial x_W}} \qquad \text{(A.45)}
$$

$$
\frac{\partial F}{\partial x_H}=-(1-\lambda_W)M_W\cdot E[\rho_W(c_W)^{-\rho_W-1}(X-1)\frac{\partial c_W}{\partial x_H}]+2\delta \qquad \text{(A.46)}
$$

$$
\frac{\partial F}{\partial x_W}=-(1-\lambda_W)M_W E[\rho_W(c_W)^{-\rho_W-1}(X-1)\frac{\partial c_W}{\partial x_W}]-2\delta \qquad \text{(A.47)}
$$

Substituting equation (A.15) in (A.46) and equation (A.16) in (A.47),

$$
\frac{\partial F}{\partial x_H}=-(1-\lambda_W)\lambda_H M_W M_H\rho_W E[(c_W)^{-\rho_W-1}(X-1)^2]+2\delta \qquad \text{(A.48)}
$$

$$
\frac{\partial F}{\partial x_W}=-(1-\lambda_W)^2M_W^2\rho_W E[(c_W)^{-\rho_W-1}(X-1)^2]-2\delta \qquad \text{(A.49)}
$$

From equations (A.11), (A.48), and (A.49),

$$\begin{aligned}\frac{dx_W^*}{dx_H} &= -\frac{-(1-\lambda_W)\lambda_H M_W M_H \rho_W \cdot E[(c_W)^{-\rho_W-1}(X-1)^2] + 2\delta}{-(1-\lambda_W)^2 M_W^2 \rho_W \cdot E[(c_W)^{-\rho_W-1}(X-1)^2] - 2\delta} \\ &= -\frac{(1-\lambda_W)\lambda_H M_W M_H \rho_W \cdot E[(c_W)^{-\rho_W-1}(X-1)^2] - 2\delta}{(1-\lambda_W)^2 M_W^2 \rho_W \cdot E[(c_W)^{-\rho_W-1}(X-1)^2] + 2\delta}\end{aligned} \tag{A.50}$$

Rearranging terms in equation (A.50) produces:

$$\boxed{\left.\frac{dx_W^*}{dx_H}\right|_{\delta>0} = -\frac{\lambda_H M_H - \frac{2\delta}{(1-\lambda_W)M_W\rho_W \cdot E[(c_W)^{-\rho_W-1}(X-1)^2]}}{(1-\lambda_W)M_W + \frac{2\delta}{(1-\lambda_W)M_W\rho_W \cdot E[(c_W)^{-\rho_W-1}(X-1)^2]}}} \tag{A.51}$$

Now under the simple case where second movers do not care whether their choices diverge from their spouse's,

$$\boxed{\left.\frac{dx_W^*}{dx_H}\right|_{\delta=0} = -\frac{\lambda_H M_H}{(1-\lambda_W)M_W}} \tag{A.52}$$

$\left.\frac{dx_W^*}{dx_H}\right|_{\delta>0}$ adds a positive amount to the numerator and subtracts a positive amount from the denominator of $\left.\frac{dx_W^*}{dx_H}\right|_{\delta=0}$. Thus,

$$\left.\frac{dx_W^*}{dx_H}\right|_{\delta>0} \geq \left.\frac{dx_W^*}{dx_H}\right|_{\delta=0}$$

for $\delta \geq 0$.

Predictions from the modified model for second-mover decision-making:

1. Equation A.51 suggests that if second movers place some positive value to aligning with their spouse's choices then $\left.\frac{dx_W^*}{dx_H}\right|_{\delta>0}$ will be less negative than otherwise. If δ is large enough $\left.\frac{dx_W^*}{dx_H}\right|_{\delta>0}$ could be positive. If women care more about align with their spouse than men then we would expect the *Strategy* variable for women to more positive than for men second movers.

Appendix B: Tables & Figures

Table B.1: Difference in characteristics of men participants and non-participants

	Participants		Non-participants		(1) - (2)	
	Mean	Std. Dev.	Mean	Std. Dev.	Diff.	Std. Err.
	(1)		(2)		(3)	
Age (years)	42.69	(10.93)	42.93	(14.40)	-0.24	(0.96)
Education:						
Less than primary (%)	15.03	(35.76)	21.84	(41.44)	-6.81**	(3.05)
Primary (%)	32.54	(46.88)	27.59	(44.82)	4.96	(3.86)
Secondary (%)	34.12	(47.44)	36.21	(48.20)	-2.08	(3.94)
Higher-secondary or more (%)	18.30	(38.69)	14.37	(35.18)	3.94	(3.16)
Number of assets:						
Mobile phone	2.42	(1.10)	2.33	(1.12)	0.09	(0.09)
Television	0.78	(0.55)	0.70	(0.55)	0.08*	(0.05)
Cow/Buffalo	1.22	(1.53)	0.92	(1.49)	0.30**	(0.13)
Poultry	15.63	(14.50)	15.00	(15.31)	0.63	(1.21)
Observations	885		174			

Notes: Standard deviation in parentheses for mean outcomes. Differences and associated significance levels were derived from two sample t-tests. Standard errors for the t-tests are presented in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table B.2: Results from regression of coordination error (*Error*) by first-movers in the *Joint* game on risk preference disparity in household and strategy of members.

	Husbands				Wives			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Error $(= E_1(L_2) - L_2)$								
Shared: Own choice - Spouse choice	0.141***	0.139***	0.181***	0.189***	0.185***	0.186***	0.210***	0.214***
	(0.032)	(0.032)	(0.045)	(0.047)	(0.035)	(0.035)	(0.047)	(0.048)
Shared: Own choice			-0.083	-0.090			-0.050	-0.059
			(0.060)	(0.061)			(0.065)	(0.067)
Spouse *Strategy*		0.092	0.065	0.032		0.037	0.034	0.042
		(0.148)	(0.150)	(0.155)		(0.153)	(0.153)	(0.156)
Strategy		0.003	-0.001	0.004		0.012	-0.004	-0.024
		(0.138)	(0.138)	(0.142)		(0.159)	(0.160)	(0.165)
Age				-0.026*				0.011
				(0.016)				(0.018)
Spouse's age				0.021				-0.014
				(0.017)				(0.016)
Wife's decision-making				-0.087*				-0.058
				(0.050)				(0.060)
Dependency				0.070				-0.179
				(0.481)				(0.515)
Children under 5 (=1)				0.169				-0.072
				(0.169)				(0.185)
Husband's mother present (=1)				0.174				0.087
				(0.218)				(0.256)
Husband's mother present (=1)				-0.276				-0.598*
				(0.296)				(0.311)
Wife's mother present (=1)				-0.352				-0.131
				(0.333)				(0.516)
Wife's father present (=1)				1.557				0.353
				(1.565)				(1.116)
Education (Less than prim=0):								
Primary				0.033				0.061
				(0.237)				(0.246)
Secondary				-0.109				-0.033
				(0.241)				(0.276)
Highersecondary or more				-0.202				-0.208
				(0.290)				(0.376)
Spouse's education (Less than prim=0):								
Primary				0.034				-0.033
				(0.242)				(0.246)
Secondary				-0.049				-0.084
				(0.264)				(0.258)
Highersecondary or more				0.090				0.393
				(0.370)				(0.320)
Occup. (Farming = 0):								
Non-ag self-emp				-0.216				0.319
				(0.229)				(0.967)
Ag wage lab				-0.513				0.410
				(0.392)				(0.948)
Non-ag wage lab				-0.340				0.365
				(0.295)				(0.872)
Raise livestock								0.413
								(0.525)
Homemaker/Student				0.776*				0.279
				(0.420)				(0.435)
Other				0.156				1.008
				(0.420)				(0.959)
Spouses' occ. (Farming=0):								
Non-ag self-emp				0.893				-0.013
				(0.839)				(0.259)
Ag wage lab				0.068				-0.394
				(1.365)				(0.500)
Non-ag wage lab				-0.442				-0.150
				(0.683)				(0.320)
Raise livestock				-0.098				
				(0.463)				
Homemaker/Student				-0.253				-0.615
				(0.349)				(0.448)
Other				-1.864**				-0.611
				(0.798)				(0.420)
Wealth index				-0.027				0.122
				(0.068)				(0.078)
Constant	-0.039	-0.069	0.226	1.179*	0.031	0.021	0.199	0.154
	(0.070)	(0.095)	(0.220)	(0.705)	(0.075)	(0.102)	(0.250)	(0.818)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.061	0.061	0.063	0.090	0.086	0.086	0.087	0.104
Observations	885	885	885	885	885	885	885	885

Notes: *Error* takes integer values in $[-5, 5]$. Positive values indicate that the degree of risk aversion of the player was underestimated by their spouse, and negative values indicate overestimation. Wealth index created as mean response of wife to questions about assets owned by household. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table B.3: Results from regression of absolute value of coordination error (*Abs. error*) by first-movers in the *Joint* game on risk preference disparity in household and strategy of members.

	Husbands				Wives			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Abs. error $= \lvert E_1(L_2) - L_2 \rvert$								
Shared: Spouse abs. diff.	0.073**	0.061*	0.057*	0.045	0.057	0.038	0.040	0.046
	(0.034)	(0.034)	(0.034)	(0.034)	(0.036)	(0.035)	(0.035)	(0.035)
Shared: Own choice			0.049*	0.046			-0.063**	-0.052
			(0.029)	(0.029)			(0.031)	(0.032)
Spouse *Strategy*		-0.434***	-0.427***	-0.428***		-0.692***	-0.692***	-0.666***
		(0.096)	(0.096)	(0.096)		(0.093)	(0.092)	(0.096)
Strategy		-0.235***	-0.231**	-0.215**		-0.250**	-0.280***	-0.272***
		(0.091)	(0.091)	(0.092)		(0.098)	(0.098)	(0.101)
Age				0.002				0.011
				(0.009)				(0.011)
Spouse's age				-0.002				-0.009
				(0.010)				(0.010)
Wife's decision-making				0.037				0.050
				(0.029)				(0.030)
Dependency				0.012				0.463
				(0.319)				(0.315)
Children under 5 (=1)				0.003				0.126
				(0.108)				(0.110)
Husband's mother present (=1)				-0.030				0.185
				(0.136)				(0.163)
Husband's father present (=1)				0.269				-0.085
				(0.174)				(0.192)
Wife's mother present (=1)				-0.639**				0.348
				(0.253)				(0.268)
Wife's father present (=1)				1.501*				0.349
				(0.793)				(0.344)
Education (Less than prim.=0):								
Primary				0.277*				-0.139
				(0.146)				(0.155)
Secondary				0.105				-0.009
				(0.155)				(0.173)
Highersecondary or more				-0.016				-0.046
				(0.189)				(0.233)
Spouse's education (Less than prim.=0):								
Primary				-0.135				0.056
				(0.153)				(0.149)
Secondary				-0.200				0.106
				(0.171)				(0.161)
Highersecondary or more				0.101				0.124
				(0.235)				(0.201)
Occup. (Farming = 0):								
Non-ag self-emp				-0.109				0.126
				(0.156)				(0.681)
Ag wage lab				-0.459				-0.034
				(0.320)				(0.554)
Non-ag wage lab				-0.046				0.013
				(0.205)				(0.425)
Raise livestock								-0.307
								(0.323)
Homemaker/Student				-1.308***				-0.231
				(0.289)				(0.261)
Other				-0.113				-0.530
				(0.252)				(0.420)
Spouse's occup. (Farming = 0):								
Non-ag self-emp				0.598				-0.071
				(0.513)				(0.158)
Ag wage lab				1.084**				-0.734**
				(0.539)				(0.343)
Non-ag wage lab				-0.349				-0.205
				(0.481)				(0.205)
Raise livestock				0.240				
				(0.305)				
Homemaker/Student				-0.049				-1.875***
				(0.249)				(0.634)
Other				0.365				-0.507**
				(0.656)				(0.217)
Wealth index				-0.047				0.017
				(0.047)				(0.050)
Constant	1.437***	1.642***	1.478***	1.515***	1.643***	1.884***	2.105***	1.895***
	(0.075)	(0.088)	(0.124)	(0.468)	(0.081)	(0.089)	(0.140)	(0.484)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.047	0.080	0.083	0.120	0.064	0.134	0.138	0.165
Observations	885	885	885	885	885	885	885	885

Notes: *Abs. error* takes integer values in $[0, 5]$ with higher values indicating greater deviation of spouse's predictions from actual choice. Wealth index created as mean response of wife to questions about assets owned by household. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table B.4: Results from regression of individual's *Strategy* as second-mover on own and spouse characteristics.

	Husbands		Wives	
	(1)	(2)	(3)	(4)
Strategy				
Spouse *Strategy*	0.090**	0.074*	0.081**	0.068**
	(0.037)	(0.039)	(0.033)	(0.034)
Shared: Abs. spouse diff.	-0.018	-0.020	-0.013	-0.012
	(0.013)	(0.013)	(0.012)	(0.012)
Shared: Choice	-0.009	-0.009	-0.043***	-0.049***
	(0.011)	(0.011)	(0.010)	(0.011)
Conscientious	0.019	0.016	0.064***	0.064***
	(0.019)	(0.020)	(0.018)	(0.018)
Extraverted	-0.001	0.006	-0.067***	-0.059***
	(0.023)	(0.023)	(0.020)	(0.021)
Agreeable	-0.007	-0.003	-0.003	-0.001
	(0.019)	(0.020)	(0.020)	(0.020)
Open to new	0.042***	0.041***	-0.008	-0.015
	(0.014)	(0.015)	(0.013)	(0.014)
Neuroticism	-0.002	-0.003	0.003	0.008
	(0.017)	(0.017)	(0.014)	(0.014)
Age		-0.003		-0.002
		(0.004)		(0.004)
Spouse's age		0.001		0.001
		(0.004)		(0.004)
Wife's decision-making		0.009		-0.005
		(0.014)		(0.016)
Dependency		-0.257**		-0.197*
		(0.122)		(0.109)
Children under 5 (=1)		0.066*		0.058
		(0.039)		(0.035)
Husband's mother present (=1)		0.006		-0.056
		(0.051)		(0.051)
Husband's father present (=1)		-0.050		-0.042
		(0.062)		(0.062)
Wife's mother present (=1)		-0.130		-0.013
		(0.125)		(0.118)
Wife's father present (=1)		-0.347		0.052
		(0.339)		(0.314)
Education (Less than prim.=0):				
Primary		-0.017		0.088
		(0.058)		(0.055)
Secondary		-0.070		0.073
		(0.061)		(0.061)
Highersecondary or more		-0.030		0.033
		(0.072)		(0.084)
Spouse's education (Less than prim.=0):				
Primary		0.001		0.091*
		(0.059)		(0.054)
Secondary		0.032		0.064
		(0.065)		(0.057)
Highersecondary or more		-0.016		0.135*
		(0.090)		(0.070)
Occup. (Farming=0):				
Non-ag self-emp		0.027		-0.138
		(0.056)		(0.192)
Ag wage lab		0.138		0.099
		(0.145)		(0.182)
Non-ag wage lab		-0.011		-0.362***
		(0.071)		(0.140)
Raise livestock				-0.099
				(0.104)
Homemaker/Student		0.304		-0.085
		(0.271)		(0.079)
Other		0.268**		-0.190
		(0.135)		(0.259)
Spouse's occup. (Farming=0):				
Non-ag self-emp		0.033		-0.050
		(0.214)		(0.061)
Ag wage lab		-0.482***		0.380**
		(0.173)		(0.156)
Non-ag wage lab		-0.282		-0.043
		(0.181)		(0.067)
Raise livestock		-0.058		
		(0.120)		
Homemaker/Student		-0.053		-0.239
		(0.101)		(0.720)
Other		0.264		0.049
		(0.233)		(0.113)
Wealth index		-0.028		-0.000
		(0.019)		(0.018)
Constant	-0.047	0.194	0.448***	0.439*
	(0.186)	(0.267)	(0.163)	(0.235)
Village FEs	Yes	Yes	Yes	Yes
R-squared	0.091	0.122	0.109	0.143
Observations	885	885	885	885

Notes: The *Strategy* variable takes values in $[-1, 1]$. Positive values indicate that the riskiness of second mover's choices co-move with the first mover's and negative values indicate that a second mover who tries to counter their spouse's choice. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table B.5: Results from regression of error in predicting savings made by spouse on errors made in *Joint* game for women.

	Correct (= 1)		Overestimates (= 1)		Underestimates (= 1)	
	(1)	(2)	(3)	(4)	(5)	(6)
Error	-0.013*	-0.013*	0.015**	0.014**	-0.003	-0.001
	(0.008)	(0.008)	(0.007)	(0.007)	(0.004)	(0.004)
Shared: Diff. in pref. (γ)	0.000	0.001	0.010	0.011	-0.010	-0.012
	(0.015)	(0.015)	(0.014)	(0.013)	(0.009)	(0.009)
Shared: Own pref. (γ)	-0.040*	-0.040*	0.018	0.018	0.022*	0.022*
	(0.020)	(0.021)	(0.019)	(0.019)	(0.013)	(0.013)
Spouse *Strategy*	0.051	0.055*	-0.022	-0.018	-0.029	-0.037*
	(0.032)	(0.032)	(0.029)	(0.030)	(0.019)	(0.019)
Strategy	-0.097***	-0.107***	0.084***	0.096***	0.013	0.011
	(0.034)	(0.033)	(0.032)	(0.032)	(0.021)	(0.021)
Age		-0.002		-0.000		0.002
		(0.003)		(0.003)		(0.002)
Spouse's age		0.008***		-0.004		-0.004**
		(0.003)		(0.003)		(0.002)
Wife's decision-making		-0.009		-0.009		0.017
		(0.011)		(0.011)		(0.011)
Dependency		-0.085		0.197*		-0.111*
		(0.109)		(0.102)		(0.066)
Children under 5 (=1)		0.074**		-0.120***		0.045**
		(0.035)		(0.033)		(0.022)
Husband's mother present (=1)		0.000		-0.000		-0.000
		(0.001)		(0.000)		(0.000)
Husband's father present (=1)		-0.000		0.000		0.000
		(0.001)		(0.001)		(0.000)
Wife's mother present (=1)		0.003***		-0.002***		-0.001***
		(0.001)		(0.001)		(0.000)
Wife's father present (=1)		-0.007***		0.005**		0.002
		(0.002)		(0.002)		(0.002)
Education (Less than prim.=0):						
Primary		0.074		-0.066		-0.009
		(0.051)		(0.047)		(0.031)
Secondary		0.041		-0.017		-0.024
		(0.059)		(0.055)		(0.036)
Highersecondary or more		0.095		-0.067		-0.028
		(0.080)		(0.073)		(0.051)
Spouse's education (Less than prim.=0):						
Primary		-0.028		0.016		0.012
		(0.054)		(0.049)		(0.029)
Secondary		-0.086		0.024		0.062*
		(0.057)		(0.052)		(0.033)
Highersecondary or more		-0.000		-0.019		0.019
		(0.069)		(0.063)		(0.037)
Occup. (Farming=0):						
Non-ag self-emp		-0.116		0.142		-0.026
		(0.178)		(0.180)		(0.051)
Ag wage lab		0.038		-0.134		0.096
		(0.208)		(0.190)		(0.159)
Non-ag wage lab		0.118		-0.157		0.039
		(0.175)		(0.154)		(0.098)
Raise livestock		0.098		-0.088		-0.010
		(0.105)		(0.104)		(0.049)
Homemaker/Student		0.006		-0.046		0.039
		(0.086)		(0.086)		(0.036)
Other		-0.075		0.093		-0.018
		(0.187)		(0.192)		(0.049)
Spouse's occup. (Farming=0):						
Non-ag self-emp		-0.109**		0.093*		0.016
		(0.054)		(0.054)		(0.034)
Ag wage lab		0.143		-0.138		-0.006
		(0.113)		(0.105)		(0.075)
Non-ag wage lab		0.044		-0.024		-0.020
		(0.072)		(0.066)		(0.043)
Raise livestock						
Homemaker/Student		0.415***		-0.257*		-0.157***
		(0.136)		(0.140)		(0.058)
Other		0.242**		-0.314***		0.072
		(0.108)		(0.046)		(0.094)
Wealth index		-0.003		0.023		-0.021**
		(0.017)		(0.016)		(0.010)
Constant	0.700***	0.401**	0.230***	0.461***	0.070***	0.138
	(0.032)	(0.159)	(0.030)	(0.150)	(0.018)	(0.094)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.077	0.137	0.077	0.128	0.072	0.115
Observations	885	885	885	885	885	885

Notes: Husbands and wives were asked if either "you or your husband made any savings in the past 12 months?" If a person reported their spouse as having savings when their spouse reported not it was taken to be an overestimation, and if a person reported their spouse as not having savings when their spouse reported having savings it was taken to be an overestimation. Controls include age, education, and occupation of player and spouse, dependency ratio, number of children under 5 in household, the presence of in-laws in household and a wealth index created as mean response of wife to questions about assets owned by household. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table B.6: Results from regression of error in predicting savings made by spouse on errors made in *Joint* game for men.

	Correct (= 1)		Overestimates (= 1)		Underestimates (= 1)	
	(1)	(2)	(3)	(4)	(5)	(6)
Error	-0.005	-0.003	0.000	-0.001	0.005	0.005
	(0.008)	(0.008)	(0.006)	(0.006)	(0.006)	(0.006)
Shared: Diff. in pref. (γ)	0.011	0.020	-0.017	-0.024**	0.006	0.004
	(0.015)	(0.015)	(0.012)	(0.012)	(0.012)	(0.012)
Shared: Own pref. (γ)	-0.015	-0.023	0.013	0.020	0.001	0.003
	(0.021)	(0.021)	(0.016)	(0.016)	(0.016)	(0.016)
Spouse *Strategy*	-0.010	-0.011	-0.008	-0.004	0.018	0.015
	(0.034)	(0.034)	(0.028)	(0.028)	(0.025)	(0.025)
Strategy	0.021	0.010	-0.019	-0.013	-0.002	0.004
	(0.032)	(0.032)	(0.025)	(0.025)	(0.025)	(0.025)
Age		0.010***		-0.008***		-0.002
		(0.003)		(0.003)		(0.003)
Spouse's age		-0.008**		0.006*		0.003
		(0.004)		(0.003)		(0.003)
Wife's decision-making		0.012		-0.017***		0.005
		(0.010)		(0.004)		(0.011)
Dependency		0.015		-0.018		0.003
		(0.107)		(0.083)		(0.083)
Children under 5 (=1)		-0.016		-0.010		0.026
		(0.036)		(0.029)		(0.028)
Husband's mother present (=1)		0.001**		-0.001***		0.000
		(0.000)		(0.000)		(0.000)
Husband's father present (=1)		-0.000		0.001		-0.001*
		(0.001)		(0.001)		(0.000)
Wife's mother present (=1)		-0.000		-0.000		0.000
		(0.001)		(0.001)		(0.001)
Wife's father present (=1)		-0.003		0.001		0.002
		(0.002)		(0.002)		(0.003)
Education (Less than Prim.=0):						
Primary		-0.085*		0.073*		0.012
		(0.051)		(0.040)		(0.039)
Secondary		-0.081		0.087**		-0.006
		(0.054)		(0.042)		(0.043)
Highersecondary or more		-0.044		0.013		0.031
		(0.064)		(0.047)		(0.052)
Spouse's education (Less than Prim.=0):						
Primary		0.026		-0.021		-0.004
		(0.053)		(0.040)		(0.042)
Secondary		0.001		-0.038		0.038
		(0.059)		(0.045)		(0.048)
Highersecondary or more		-0.017		-0.014		0.031
		(0.081)		(0.065)		(0.063)
Occup. (Farming=0):						
Non-ag self-emp		-0.034		0.045		-0.011
		(0.056)		(0.046)		(0.042)
Ag wage lab		-0.010		0.013		-0.003
		(0.148)		(0.118)		(0.122)
Non-ag wage lab		-0.123*		0.038		0.085
		(0.070)		(0.058)		(0.062)
Raise livestock						
Homemaker/Student		-0.226		0.305		-0.079
		(0.478)		(0.451)		(0.070)
Other		0.082		-0.144*		0.063
		(0.128)		(0.083)		(0.107)
Spouse's occup. (Farming=0):						
Non-ag self-emp		-0.061		0.117		-0.056
		(0.169)		(0.133)		(0.159)
Ag wage lab		-0.445*		0.254		0.191
		(0.235)		(0.209)		(0.212)
Non-ag wage lab		-0.324*		0.233*		0.091
		(0.179)		(0.140)		(0.158)
Raise livestock		-0.015		0.002		0.014
		(0.103)		(0.072)		(0.085)
Homemaker/Student		-0.084		0.075		0.009
		(0.087)		(0.060)		(0.069)
Other		0.136		-0.002		-0.134*
		(0.221)		(0.226)		(0.078)
Wealth index		-0.039**		-0.001		0.039***
		(0.017)		(0.013)		(0.014)
Constant	0.681***	0.760***	0.156***	0.257**	0.164***	-0.018
	(0.032)	(0.164)	(0.025)	(0.117)	(0.025)	(0.134)
Village FEs	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.042	0.087	0.059	0.102	0.069	0.099
Observations	885	885	885	885	885	885

Notes: Husbands and wives were asked if either "you or your husband made any savings in the past 12 months?" If a person reported their spouse as having savings when their spouse reported not it was taken to be an overestimation, and if a person reported their spouse as not having savings when their spouse reported having savings it was taken to be an overestimation. Controls include age, education, and occupation of player and spouse, dependency ratio, number of children under 5 in household, the presence of in-laws in household and a wealth index created as mean response of wife to questions about assets owned by household. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Table B.7: Results from regression of the difference in number of livestock assets reported by women from their husband's report on the errors made by men and women in *Joint* game.

	(1)	(2)
Wife: *Livestock* - Husband: *Livestock*		
Wife *Error*	0.420**	0.371**
	(0.184)	(0.184)
Husband *Error*	0.091	0.137
	(0.180)	(0.183)
Shared: Wife pref. (γ)	0.182	0.475
	(0.402)	(0.409)
Shared: Husband pref. (γ)	-0.352	-0.400
	(0.370)	(0.361)
Wife *Strategy*	1.646*	1.772**
	(0.914)	(0.881)
Husband *Strategy*	-0.041	0.302
	(0.737)	(0.739)
Age		-0.052
		(0.087)
Spouse's age		-0.052
		(0.084)
Wife's decision-making		-0.591
		(0.543)
Dependency		-6.181**
		(3.070)
Children under 5 (=1)		-1.517
		(0.935)
Husband's mother present (=1)		-3.164***
		(1.120)
Husband's father present (=1)		0.617
		(1.511)
Wife's mother present (=1)		2.901*
		(1.488)
Wife's father present (=1)		-0.874
		(2.105)
Primary		-1.840
		(1.328)
Secondary		-2.196
		(1.514)
Highersecondary or more		-0.726
		(2.158)
Primary		0.269
		(1.204)
Secondary		1.615
		(1.352)
Highersecondary or more		-0.728
		(1.753)
Non-ag self-emp		2.511
		(2.692)
Ag wage lab		7.053*
		(3.615)
Non-ag wage lab		6.945**
		(2.856)
Raise livestock		3.044
		(2.616)
Homemaker/Student		4.174**
		(2.098)
Other		6.947**
		(3.236)
Non-ag self-emp		-1.553
		(1.508)
Ag wage lab		5.520*
		(3.350)
Non-ag wage lab		3.453*
		(1.870)
Raise livestock		
Homemaker/Student		0.948
		(2.412)
Other		-0.363
		(3.401)
Wealth index		2.258***
		(0.520)
Constant	-2.755***	-3.639
	(0.879)	(4.170)
Village FEs	Yes	Yes
Yes	Yes	
R-squared	0.064	0.145
Observations	879	879

Heteroskedasticity robust SEs in parentheses.
* for p<0.1, ** for p<0.05, and *** for p<0.01.

Notes: Husbands and wives were each asked to report the number of cow/buffalo, goat/sheep, and poultry owned by the household. The dependent variable is created by differencing the number reported by the husband from the number reported by his wife. Controls include age, education, and occupation of player and spouse, dependency ratio, number of children under 5 in household, the presence of in-laws in household and a wealth index created as mean response of wife to questions about assets owned by household. Heteroskedasticity robust standard errors in parentheses. * p<0.1, ** p<0.05, and *** p<0.01.

Figure B.1: Visuals presented to players to describe the lottery options.