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Delegation in the family*

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Abstract

Non-participation in household decisions is commonly interpreted as weak empowerment. We challenge this interpretation by showing that non-participation can be a strategic choice — a form of delegation — when a spouse expects the decision outcome to be sufficiently close to her preferences regardless of her involvement. We propose a model of imperfect information and derive conditions under which delegation arises in equilibrium: it occurs when the opportunity cost of participation in the decision is large compared to the preference gap between spouses. A key implication is that the spouse who receives authority may achieve lower welfare than the one who delegates. We test these predictions in two incentivized experiments conducted among couples in Belgium/France and Benin, finding strong support across both contexts. Survey evidence further confirms the external validity of the results. Our findings suggest that standard survey measures of intra-household bargaining, by conflating strategic delegation with disempowerment, may incorrectly reflect the distribution of power within households.

***JEL* Classification:** D13, O12
Keywords: intra-household decisions, collective model, delegation, household experiment.

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1 Introduction

While the economic literature traditionally focuses on decision-making by isolated individuals, social and economic life is, in practice, largely structured around households. Choices made at the household level, such as education, labor or housing, have large socio-economic implications. Accordingly, understanding the mechanisms through which households reach these choices is essential, given that spouses differ in their preferences, constraints, and access to resources.

The canonical model of the household in economics is the collective model, in which observed household choices reflect a compromise that depends on the bargaining weights of individual members. Empirically, researchers often infer an individual's influence within the household from survey questions that measure her stated involvement in decision-making. A lower reported level of participation is then interpreted as indicative of weaker bargaining power and, consequently, of a choice more distant from her own preferences. Yet, participating or delegating may themselves be strategic choices, depending on whether one spouse expects her partner to take, on his own, a decision close enough to her preferences. However, the existing literature does not provide a framework that rationalizes how a particular mode of decision emerges, why it varies across households and what this implies for the welfare of each partner.

In this paper, we propose a model in which the decision structure is endogenous. Spouses have to choose a common project between different options of varying and unobserved quality. Spouses can independently acquire costly information about the latter and differ in their preferred option. To reach a decision, they either negotiate, which involves costly effort in arguing, or delegate, whereby one spouse decides alone. Which decision structure emerges is a function of (i) the preference gap between spouses and (ii) negotiation and information costs. Building on delegation theory from organizations (Aghion and Tirole, 1997; Dessein, 2002), the model delivers two main predictions. First, delegation arises when the cost of information is high relative to the preference gap. Second, more surprisingly, the spouse who receives authority and thereby chooses her preferred project can be worse off; this is because the delegating spouse then economizes on information costs.

We test these predictions using two incentivized experiments with couples in distinct contexts: an online experiment with couples in Belgium and France (2023–2025) and a lab-in-the-field experiment with couples in Benin (2025). The experimental design measures preference misalignment directly (via within-couple differences in willingness-to-pay) and elicits whether the spouse delegates or participates in the decision, by experimentally

varying the cost of information.

Three main results emerge. First, in both experiments, delegation responds to the key trade-off highlighted by the model: delegation is more likely when the preference gap is small relative to information costs. Second, delegation increases overall welfare but may come at the disadvantage of the deciding spouse. Third, experimental delegation predicts real-world household dynamics: couples who delegate more in the experiment are less conflictual and delegate more in life. In the Beninese context, we also explore the role of gender norms in these decisions.

This paper speaks to five closely related strands of the literature and departs from each in a precise way. First, relative to the canonical intrahousehold frameworks, namely unitary, cooperative bargaining (Manser and Brown, 1980; McElroy and Horney, 1981), collective (Bourguignon et al., 1993; Browning et al., 2010; Chiappori, 1988), and non-cooperative models (Doepke and Tertilt, 2014; Lundberg and Pollak, 1993), our object of interest is not an allocation conditional on a given bargaining protocol, but the endogenous choice of the protocol itself. We propose a tractable mechanism for *why* households adopt different decision structures in the first place —delegation versus negotiation/joint decision-making— as a function of preference misalignment and the opportunity and informational costs of participation. Methodologically, our approach builds on the delegation-of-authority literature in organizations (Aghion and Tirole, 1997; Alonso and Matouschek, 2007; Dessein, 2002; Holmström, 1984), adapting its central trade-off between preference divergence and informational frictions to a household environment.

Second, our analysis connects to a large empirical literature documenting heterogeneity and inefficiencies in intra-household behavior, especially in developing-country settings (reviewed for instance by Baland and Ziparo, 2018; Bargain, 2025): sub-optimal allocation of productive inputs (Udry, 1996), imperfect risk-sharing (Dercon and Krishnan, 2000), strategic appropriation and commitment devices (Anderson and Baland, 2002), and lying, hiding, or concealment within couples (Ashraf, 2009; Baland et al., 2011; Boltz et al., 2019; Castilla, 2019). A complementary body of empirical and lab-in-the-field work directly tests efficiency and finds substantial heterogeneity, with few households behaving as fully efficient teams (Angelucci and Garlick, 2016; Hoel, 2015; Hoel et al., 2017; Iversen et al., 2011; Jakiela and Ozier, 2015; Kazianga and Wahhaj, 2017). Our contribution is to provide an explanation as to when and why spouses' individual incentives dominate the efficient cooperative benchmark. More specifically, hiding income is a form of *avoiding negotiation*, spouses hide to prevent bargaining over how income is spent. Our delegation mechanism captures a similar logic: when bargaining is costly or preferences diverge,

avoiding negotiation becomes attractive. Delegation is the "legitimate" counterpart to hiding.

Third, our analysis contributes to the growing empirical and experimental literature that measures intrahousehold control and women's agency using decision-making and "jointness" indicators or willingness-to-pay for control (Donald et al., 2020). In particular, Almås et al. (2018) use willingness-to-pay for control to measure intra-household power and study how policies shift control; Afzal et al. (2022) and Bakhtiar et al. (2022) study the demand for agency and document substantial heterogeneity in preferences and in the value of decision rights; and Fafchamps and Kebede (2022) shows that agency structures affect both efficiency and equity in team-like allocation decisions. Survey-based evidence further highlights that reported "who decides" measures are noisy and often disagreed upon within couples (Ambler et al., 2021). We contribute by showing that participation and joint decision-making are themselves equilibrium responses to underlying alignment and participation costs; as a result, "jointness" can increase precisely when preferences are *less* aligned, in line with recent discussions of what household power measures do and do not capture (Jayachandran and Voena, 2025).

Fourth, our paper is closest to recent work that opens the black box of within-couple communication, information aggregation, and delegated decision-making. Conlon et al. (2021) and Mustafi (2024) study how spouses communicate, learn, and pool information inside the household, while Buchmann et al. (2025) documents how delegating financial decisions depend on beliefs about the partner (e.g., competence or trust) and reputational concerns. We unify these insights in a single framework where delegation can be an optimal response to preferences and information.

Finally, we link our mechanism to the literature on mental load in Western economies, which emphasizes that "having a say" can come with an unequal burden of planning, attention, and administrative work (Daminger, 2019; Haupt and Gelbgiser, 2024). We formalize this burden as an informational/participation cost that can make authority privately costly, generating testable distributional predictions: delegation can raise total surplus while lowering the well-being of the spouse who bears the cognitive load. Together, these contributions provide a coherent interpretation of disparate findings across settings —including why joint decision-making may be more prevalent where disagreement is larger.

The paper is structured as follows. We first present the model in Section 2. In Section 3, we describe the design of our experiments in Europe and Benin and discuss in Section 4 testable predictions. In Section 5 and in Section 6, we present our experimental results

from France/Belgium and from Benin. In Section 7, we discuss the external validity of our results. Section 8 concludes.

2 The model

We are interested in the decision-making process between spouses over a household decision, for example the schooling of children. Consider parents choosing a school for their child. Schools differ along many dimensions, but suppose the salient one is pedagogy — say, how participative the teaching style is. Parents may disagree about their preferred pedagogy, and learning about schools approaches is costly. Efficiency then requires having the parent with the lower cost of time to gather information. Faced with an informed spouse, the other parent may find it preferable to delegate the decision rather than negotiate from a position of informational disadvantage (especially if negotiation is itself costly). Yet when preferences diverge substantially, both parents may end up negotiating, and potentially seeking information, inefficiently duplicating effort. We develop a model to formally characterize when each regime arises and their welfare implications.

Our model extends the model of delegation of authority in firms developed by Dessein (2002), and for some dimensions, by Aghion and Tirole (1997). Consider a situation in which two spouses have to make an investment decision between various potential projects that vary according to one dimension and are represented by a real number $y \in \mathcal{R}$. Spouses differ in their preferred project and face different costs of acquiring information about the true value of y. Each spouse derives a private benefit from project y: $u_H = u_H(y, m)$ for the husband H and $u_W = u_W(y, m, b)$ for the wife W, where m is a random variable accounting for the state of the world and b a parameter of dissonance between spouses. We assume that the bias between H and W is positive, $b > 0$: if y represents the amount that has to be spent on the project, a positive bias means that the wife is willing to invest more in the project that the husband.

We use a standard quadratic loss function for the spouses' benefits:

$$u_H = -(y - m)^2 \tag{2.1}$$

$$u_W = -\left(y - (m + b)\right)^2 \tag{2.2}$$

The benefit to the husband is maximized at $y = m$ while that of the wife is maximized at $y = m + b$. There are two states of the world, $m \in \{-L, L\}$ which occur with equal probability. Each spouse can learn about the state of the world at a cost γ_i, with $i = W, H$.

The intra-household decision-making process is endogenously determined: if both spouses decide to participate, they have to negotiate, which comes at a cost, or one spouse chooses to delegate the decision and to let the other spouse decide on her own. Bargaining is costly and its outcome is determined by a contest function. Each spouse $i \in \{H, W\}$ chooses a level of effort e_i, at a cost $c_i e_i$, so that with probability $\frac{e_i}{e_i+e_j}$, the decision about y lies with spouse i and with probability $1 - \frac{e_i}{e_i+e_j}$, with spouse j. For the sake of simplicity, we assume that $c_H = c_W = c$.[1] When a spouse chooses to delegate, the other spouse decides on her own the level of investment.

Spouse i 's utility U_i is equal to the sum of the private benefit from the project, the cost of information and the cost of bargaining, if applicable.

The timing of the game is the following.

1. **Information acquisition:** Both spouses decide whether to pay the fixed cost γ_i to learn the true state of the world.

2. **Information sharing:** If informed, a spouse decides whether to reveal the true state of the world to the other spouse.

3. **Choice of the decision process:** Each spouse decides whether she wants to delegate the decision to the other spouse or to enter into a contest by choosing $e_i > 0$.

4. **Choice of the investment level:** The winner of the contest, or the spouse who received delegation, chooses y. Each spouse receives U_i.

We solve the model assuming that all decisions are taken non-cooperatively and focus on the sub-game perfect Nash equilibria of this game. In a second step, we compare these equilibrium outcomes to the cooperative decisions and their resulting welfare levels.

2.1 Optimal decision structure

We first derive the level of y that spouse i chooses if she is the decision-maker. We denote u_i^j, the benefit to spouse i when j takes the decision.

[1] Our results do not rely on this assumption. If the costs are asymmetric, our main results go through. The equilibrium effort of one spouse increases with the relative bargaining cost of the other spouse. Note also that, given the contest function, the negotiation cost does not directly enter the equilibrium utility levels, as the level of effort adjusts, so that $c * e_i$ is a constant (see Appendix A).

When informed, the wife maximizes her benefit in state m:

$$y^W = m + b \quad \Rightarrow \quad u_W^W = 0; \quad u_H^W = -b^2 \tag{2.3}$$

In a similar way, the husband, under full information about m, chooses:

$$y^H = m \quad \Rightarrow \quad u_H^H = 0; \quad u_W^H = -b^2 \tag{2.4}$$

If not informed, the wife maximizes her expected benefit:

$$\begin{aligned} Max_y\, E\left(u_W\right) &= -\frac{1}{2}(y - (-L) - b)^2 - \frac{1}{2}(y - L - b)^2 \\ y^W = b \Rightarrow E\left(u_W^W\right) &= -L^2; \quad E\left(u_H^W\right) = -L^2 - b^2 \end{aligned} \tag{2.5}$$

In a similar way, when uninformed, the husband maximizes his expected benefit:

$$\begin{aligned} Max_y\, E\left(u_H\right) &= -\frac{1}{2}(y - (-L))^2 - \frac{1}{2}(y - L)^2 \\ y^H = 0 \Rightarrow E\left(u_H^H\right) &= -L^2; \quad E\left(u_W^H\right) = -L^2 - b^2 \end{aligned} \tag{2.6}$$

Depending on whether she knows the true state of nature, each spouse decides whether to delegate or to enter into contest. We distinguish between three cases: one in which both spouses are informed, one in which none of them is informed and one in which only one spouse is informed. To avoid trivial solutions, we henceforth assume that $b < L$ and $L^2 > \gamma_i$.[2]

We first show:

Lemma 1. *Delegation occurs iff only one spouse is informed. When they are both (un)informed, bargaining takes place.*

Proof. See Appendix A. ■

When none or both spouses are informed, they always bargain. When only one of them is informed, the non-informed spouse prefers not to participate and delegates since the utility loss from an uninformed decision is larger than the bias in preferences (given that $L > b$). On the other hand, an informed spouse never reveals the state of the world as this would trigger a bargaining process with an expected payoff $-\frac{3}{4}b^2$, which is lower than

[2] If $b > L$, delegation never occurs and if $L^2 < \gamma_i$, spouses, individually, never pay for information.

when she decides alone (payoff 0). She does not delegate either because her partner then implements his preferred choice (which yields $-b^2$ to her).

Information acquisition

Optimal information acquisition depends on its cost and on the behavior of the other spouse. We can show:

Proposition 1. *If both* $\gamma_i < \frac{b^2}{4}$ *and* $\gamma_j < \frac{b^2}{4}$ *informed bargaining occurs.*

Uninformed bargaining occurs if both $\gamma_i > \frac{3b^2}{4} + L^2$ *and* $\gamma_j > \frac{3b^2}{4} + L^2$.

Delegation prevails otherwise.

Proof. See Appendix A. ■

When the cost of acquiring information is low enough, being informed is a dominant strategy. When the cost is low for both spouses, they both acquire information and bargain. Symmetrically, when the cost of acquiring information is too high for both spouses, being informed is a dominated strategy and uninformed bargaining takes place.

By contrast, if the cost is low enough for one spouse and large enough for the other, the latter chooses not to acquire information and delegates the decision to the informed spouse. For intermediate cost levels, both spouses prefer to delegate the decision to the other (informed) spouse rather than to seek information. The payoff matrix corresponds to a chicken game which allows for two pure strategy equilibria (and one in mixed strategy which we henceforth ignore since it is less efficient) which involve delegation to either spouse.

In the (γ_W, γ_H) space, the equilibrium outcomes are represented in Figure 1 below. As discussed above, delegation occurs when information costs are assymmetric across spouses.

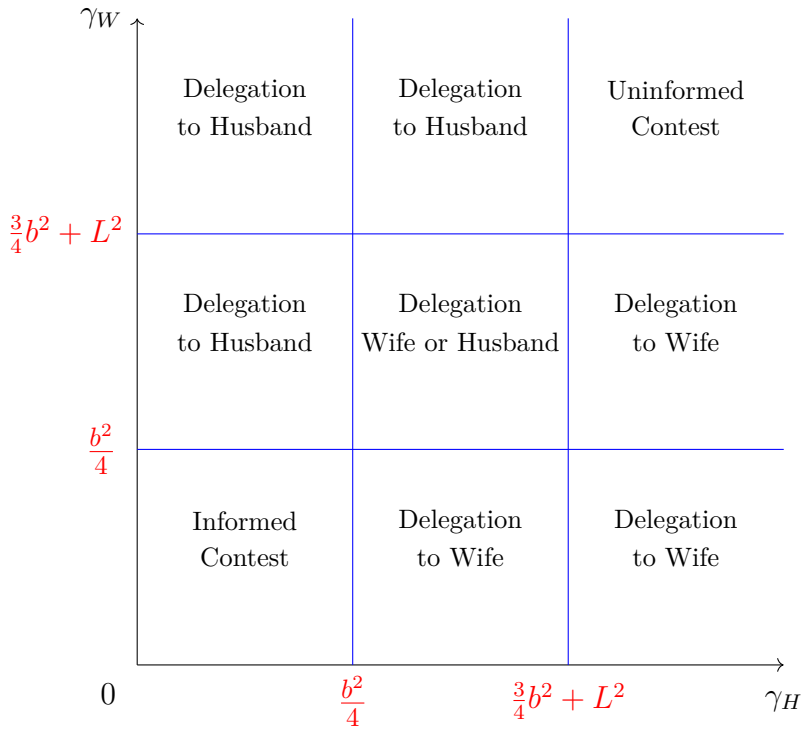
2.2 Welfare

We first discuss welfare under delegation. Interestingly, the spouse who receives delegation and can, thus, choose her preferred investment level may be worse off than the other spouse. The latter free-rides on the search for information at the cost of a choice that differs from her preferred project.

We have:

Proposition 2. *Spouse* i *who receives delegation is worse off than spouse* j *iff* $b^2 < \gamma_i$.

Figure 1: Equilibria



Proof. Under delegation, $V_i = -\gamma_i$ and $V_j = -b^2$. As $L > b$, $\frac{3b^2}{4} + L^2 > b^2$ and therefore the space in which $b^2 > \gamma_i$ is not empty. ■

We now compare welfare under the non-cooperative solution to the one that would obtain under the collective model. In the latter, the household maximizes a weighted sum of utilities with bargaining weights $(\mu, 1-\mu)$. The collective solution implies an optimal level of investment equal to $y^* = m + (1-\mu)b$.

Proposition 3. *Under delegation, the spouse who receives (gives) delegation is always better (worse) off in the non-cooperative than in the collective decision making.*

Consider $\gamma_W < \gamma_H$. For both spouses, the collective solution dominates both informed bargaining for intermediate values of μ and uninformed bargaining for large γ_W and small μ. More formally, the collective solution dominates if either (i) $1 - \sqrt{\frac{3}{4} + \frac{\gamma_H}{b^2}} \leq \mu \leq \sqrt{\frac{3}{4}}$) or (ii) $\gamma_W > \frac{3b^2}{4} + \frac{L^2}{3}$ and $\mu < \frac{\frac{3b^2}{4}}{L^2 + \frac{3b^2}{4}}$.

Proof. See Appendix A. ■

The collective solution never dominates delegation. This is because the informed spouse incurs the cost of acquiring the information while the level of investment chosen collectively is below her preferred choice. On the other hand, the collective solution dominates non-cooperative bargaining as long as bargaining weights are not too unbalanced: (i)

under informed bargaining the household saves on information costs, and (ii) under both informed and uninformed bargaining the collective solution saves on the cost of conflict. Clearly, if bargaining weights are very unbalanced at the expense of one spouse, she is better off in the non-cooperative setting.

3 Experimental design

We carried out two separate experiments with couples, one in Europe (in Belgium and France) and one in Africa (in Benin). The purpose of our experiments is to investigate, in two widely different contexts, how spouses take collective decisions and, in particular, when delegation emerges, as a function of preference alignment, information and participation costs.

In our games the couple's decision consists in the choice between an (unknown) amount of cash and a particular good. Individuals first choose whether or not to pay to learn about the exact amount of cash and then decide whether to take part in the decision or to delegate to their informed spouse. Spouses differed in the cost they faced to learn about the exact amount of cash. We also measure the impact of the decision making structure on individual payoffs.

3.1 The European experiment

The European experiment was conducted with a total of 332 couples in Belgium and France between 2023 and 2025. Recruitment took place in two cities, Namur (Belgium) and Strasbourg (France), using three distinct pools of participants and slightly different recruitment procedures across sites.

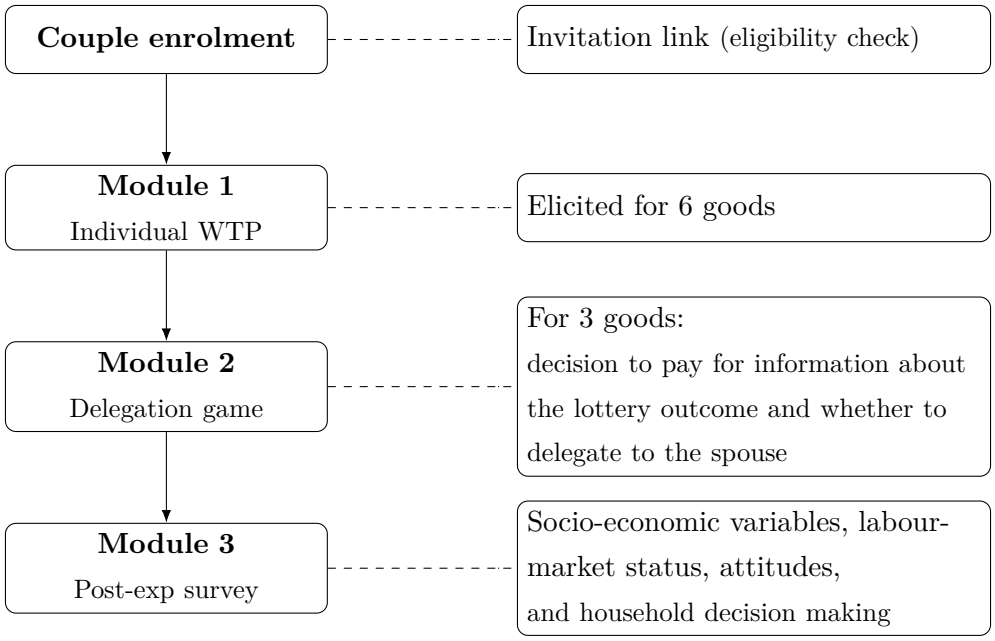
The experiment was implemented online with couples answering simultaneously and independently. One spouse first registered through a dedicated website, where they received information on duration, compensation and anonymity, and completed a short eligibility check (age, couple status, minimum cohabitation duration). They then entered their own and their partner's contact details, and each partner received a personal link (by email or SMS). Both partners had to open their individual link on different browsers/devices and start the survey at the same time.

In the experiment, a choice had to be made between a voucher of known characteristics and an amount of cash drawn from a lottery. The divergence in preferences between spouses is captured by differences in their willingness to pay for the voucher. Before deciding whether to participate in or to delegate the decision, the player can learn the

value of the lottery at a cost. Since preferences cannot be manipulated experimentally, we asked couples to take decisions over several goods, thereby obtaining good-specific levels of preference biases.

The protocol consisted of three modules summarized in Figure 2. For Modules 1 and 2, instructions were given to participants through short videos as well as texts to ensure they understand the impact of their choices on their compensation.

Figure 2: Experimental protocol: overview of Modules 1–3



In Module 1, we elicited each spouse's willingness to pay (WTP) for six joint vouchers – each worth 60 €– to be received and used by both spouses (restaurant, bookshop, massage for two, bowling, cinema, and a supermarket or multi-shop voucher depending on the site), using an incentive-compatible list of choices between the voucher and cash amounts between 20 and 100 euros. Both spouses started with Module 1 and were presented the six goods/vouchers but the order of the goods was randomized for each spouse.

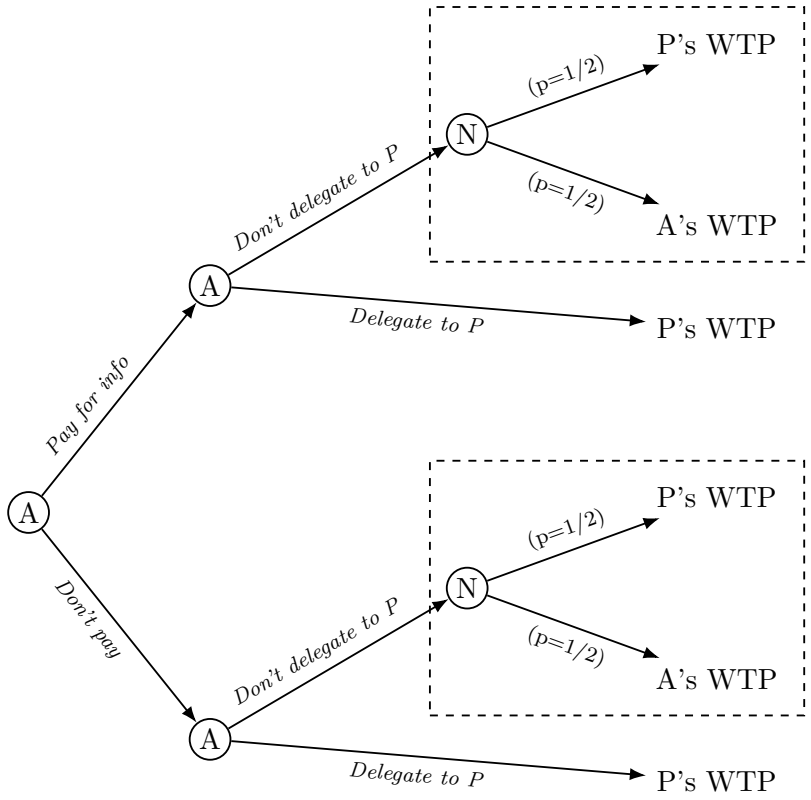
Module 2 implemented the framed delegation game. The six goods were randomly split within the couple, so that each spouse was assigned three goods as the *active* player, and the remaining three as the *passive* player. For each good, active players received a 15€ endowment and had to decide whether to pay an information fee (either 5€ or 10€) to observe the lottery realization. Figure 3 summarizes the decision tree. The active player had to decide whether to take part in the final choice between good and cash or to delegate this decision to their partner. If she delegated, her partner's preferences elicited

in Module 1 were implemented: she received the voucher if her partner's WTP was higher than the cash drawn from the lottery (and the cash otherwise). If she did not delegate, the preferences of either the active or the passive player was implemented with equal probability based on their choices in Module 1.[3]

In Module 3, both spouses answered a post-experiment questionnaire on individual and household characteristics, household financial management, preferences, and relationship variables.

The experiment was fully incentivised. Each partner received an individual compensation based on one randomly selected game and equal to the endowment minus any information cost. In addition, they received a couple compensation based on one randomly selected decision of Module 2 (see Appendix B.1.4 for details).[4]

Figure 3: Decision tree for the delegation game for one good



A couple (A,P) with A = *active* player and P = *passive* player for a given good ; N = nature.

[3]When the active player did not pay for information but participated, her decision was based on her choice under uncertainty elicited at the end of the previous module. To this end, we also asked active players to choose between the voucher and an unknown cash amount drawn from the lottery.

[4]To preserve within-couple confidentiality, with low probability, the couple compensation was given by one randomly selected outcome based on the preferences expressed in Module 1.

3.2 The Beninese experiment

In Benin, we implemented a simpler experiment as it was embedded in a larger household survey. Compared to the European experiment, participants played with only one good, husbands were the only active players and paying for information and participating was a bundled choice. The framing was adapted to the local context. The experiment was conducted with a total of 482 couples who were part of a randomized controlled trial evaluating the impacts of a pineapple production subsidy program. The experiment took place in May-June 2025, with couples for which both spouses were available to answer.[5]

The experiment consisted of two modules. Each household was (randomly) presented one of two goods, either a complete pencil case or a thermos, which usually cost between 3,000 and 5,000 FCFA. In Module 1, we elicited each spouse's willingness to pay (WTP) for the good using a list of choices between the good and a cash amount ranging between 250 and 18,000 FCFA. Visual representations were used, prompting participants to express their choice on a tablet.

Module 2 implemented a framed delegation game which is a simplified version of the previous experiment (details are provided in Appendix B.2). Enumerators introduced the game and trained participants using a video. Husbands were given a 1,000 FCFA endowment and were presented with the following scenario: their wife was at a school (or at a microfinance institution office) where a lottery was taking place (with a prize in cash ranging from 1,000 to 6,000 FCFA). Once the lottery was drawn, the wife could choose to keep the cash or take the good. Alternatively the husband could take the decision on his own provided he paid the "cost of information", framed as a transportation cost to join his wife at the place of the lottery (information costs varied between 250 and 1,000 FCFA).[6]

Under delegation, we implemented the preferences of the wife based on her answers in Module 1. If the husband paid for information, his preferences were necessarily implemented (instead of with a probability of 50% in the European experiment). Whether or not he delegated, the cash prize (if chosen) was evenly split between the two spouses and the good (if chosen) offered to the couple. In addition, the husband would receive his endowment net of information costs and his wife, a random individual compensation.

[5] In the case of polygamous household, only one wife was randomly selected.

[6] Each husband was first presented with a cost of 500. If he paid for information, the cost was then raised to 1000 in the next round. If he did not pay for information, it was lowered to 250. As a result each husband took two delegation decisions.

4 Predictions in the experimental set-ups

In the European experiment, in each round, an active player takes two successive decisions, whether to pay to learn about the lottery draw and whether to delegate the decision to her partner who is always informed. For the sake of illustration, consider the choices faced by this player who has to decide between a restaurant voucher and an unknown cash amount. She first chooses whether to "pay for information", i.e. to know the exact amount of cash. Suppose that she dislikes going to the restaurant while her partner enjoys eating out (so that the bias is very large). She anticipates that he will choose the voucher if he decides on his own and therefore considers taking part in the decision. Whether she pays for information depends on her willingness to pay for the restaurant voucher. If it is very small, whatever the cash amount proposed, she would choose the cash: the information about the lottery draw has no value to her and she does not pay for it. For intermediate values of her willingness to pay, the information is valuable as her choice depends on the exact lottery draw. She then compares what she would loose by deciding uninformed with the price of information. By contrast, if her preferences are more aligned with that of her partner, she may consider delegating and compares the price of information to her loss from letting her partner decide on his own.

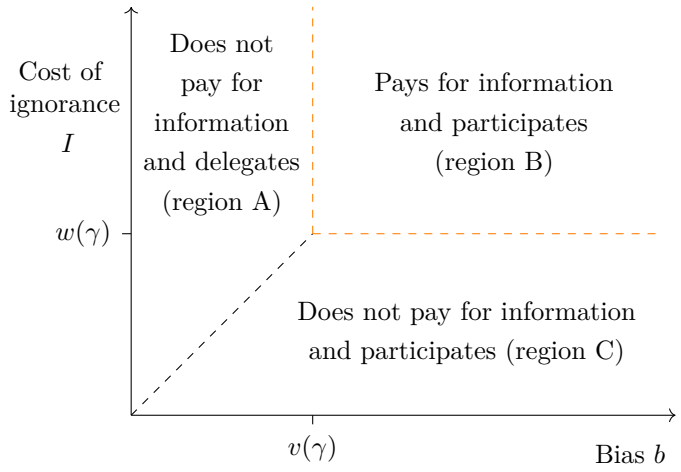
This example illustrates the critical role played by three variables: b, γ and I. The first two are directly drawn from the theory: b stands for the bias in preferences, as measured by the absolute difference between partners in their willingness-to-pay (WTP), and γ is the price of information (which we vary experimentally). The third one, I, arises from the design of the experiment (which implemented a binary choice, with a bounded set of choices instead of a continuous one in the model): it represents the cost of an uninformed decision, which we call the cost of ignorance. The cost of ignorance is null if the WTP for the good is either very low or very high (below 20 or above 100), since the optimal choice in that case does not depend on the lottery draw. By contrast, for intermediate values of the WTP, an uninformed player can take decisions that are, ex-post, sub-optimal: had he been informed, he would have taken a different decision. In practice, I is measured as the largest loss incurred by an uninformed individual when making a wrong choice, given the lottery draw. For instance, if a player WTP for a good is 40 (80), when uninformed, she would choose the lottery (good) and her maximum loss is then equal to 40-20 (100-80).

Depending on the values taken by b, γ and I, the active player chooses between three different sets of decisions: (A) she does not pay for information and delegates; (B) She pays for information and participates; (C) She does not pay for information and participates. This corresponds to delegation, informed bargaining or uninformed bargaining discussed

in Proposition 1.[7] These decisions are illustrated in the (b, I) space by Figure 4 which lays the basis for our empirical specifications.[8] One expects the active player to pay for information if she wants to participate to the decision (b is large compared to γ) and if the information is valuable enough (I is large compared to γ), which correspond to zone B in Figure 4. If she does not pay for the information, she delegates if she prefers the decision of her informed partner to her uninformed choice (b is small compared to I), which corresponds to zone A. She participates, uninformed, if the cost of taking an uninformed decision is small compared to the bias in preferences, which corresponds to zone C.

In the Benin experiment, because the husband necessarily participates in the decision if he paid for information, delegation is expected when the bias b is small compared to the price of information γ. Table B1 in Appendix B.3 presents the mapping between the main theoretical parameters and empirical measures. We provide in Appendix B.3 a complete description of the variables used and tables of descriptive statistics.

Figure 4: Predicted behavior



5 Empirical analysis: European experiment

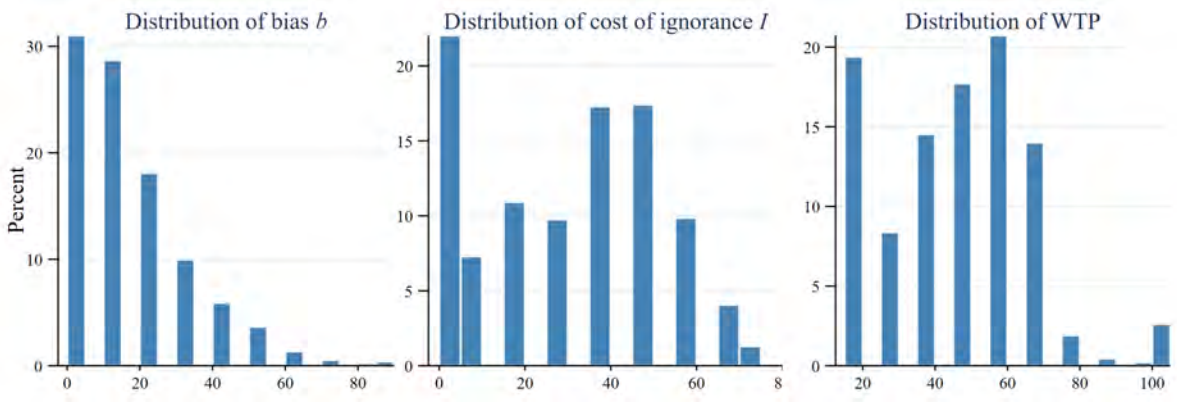
Across rounds, 24% of participants chose to pay to learn about the value of the lottery and 63% delegated the choice between the good and the lottery to their partner. Overall, the average willingness to pay is 43 euros, the bias in preferences b is equal to 15 euros

[7] Because the passive player is "forced" to be informed (this may not be his optimal strategy), only the active player is uninformed in the latter case.

[8] In the graph, the relevant thresholds for b and I are denoted by $v(.)$ and $w(.)$, both increasing in γ. Their specific functional forms cannot be derived without a particular representation of the player preferences.

and the cost of ignorance I is 27 euros. Their distribution is provided in Figure 5 below.

Figure 5: Distribution of WTP, b and I.
Unit of observation: individual × good ($N = 7{,}968$).



Paying for information. We first investigate the decision to pay to learn the value of the lottery. The decision to acquire information depends on the combination of both the cost of ignorance and the bias in preferences being large compared to the information price (corresponding to region B in Figure 4). We proxy this condition by interacting two variables: the normalized difference between b and γ and the normalized difference between I and γ.[9] We therefore estimate the following equation:

$$Pay = \alpha + \beta_1(b-\gamma) + \beta_2(I-\gamma) + \beta_3(b-\gamma)*(I-\gamma) + \beta_4' X + \epsilon \tag{5.1}$$

where X is a vector of controls including good fixed effects, the random orderings of goods and prices and, depending on the specification, individual fixed effects. In all regressions, errors are clustered at the couple level. Our main prediction is $\beta_3 > 0$: it is only when both differences are sufficiently large that players should pay for information (zone B in Figure 4).

Table 1 reports the results of the estimations. In columns 1 and 2, we report the result of a naive specification, where the decision depends on the three main variables, b, I and γ. In columns 3 and 4, we estimate Equation 5.1. In columns 5 and 6, we simply use binary variables capturing whether the differences are positive ($b \geq \gamma$ and $I \geq \gamma$). Columns 2, 4 and 6 include individual fixed effects so that the information we exploit relies on the experimental variation in the price of information and in the goods proposed to each

[9]To facilitate interpretation and avoid the interaction of negative values of the two variables, we normalize the differences so that they range between 0 and 1.

player (which affects both b and I).

The first two columns indicate that the decision to get informed depends essentially on the price of information. The roles of b and I appear more limited. More interestingly, the more structured approach provided by columns 3 to 6 confirms the relevance of the combination of the two conditions: the probability of paying for information increases by 0.53 when both the bias and the cost of ignorance vary from their smallest to their largest value compared to the price of information (using increases corresponding to the interquartile range of the two variables, the increase in the probability is 0.08, or one third of the sample mean).[10] The effect estimated in the last two columns is of a comparable magnitude: the probability of paying for information increases by 0.14 percentage points when b and I are larger than γ (59% of the sample mean).

[10] We sum the three coefficients in column (3) to obtain 53.

Table 1: Paying for information, bias b, cost of ignorance I and price of information γ - European experiment

	Pay (1)	Pay (2)	Pay (3)	Pay (4)	Pay (5)	Pay (6)
Bias b	0.001	-0.000				
	(0.001)	(0.001)				
Cost of ignorance I	0.001**	0.001**				
	(0.000)	(0.000)				
Price of information γ	-0.049***	-0.049***				
	(0.003)	(0.003)				
$b-\gamma$			0.069	-0.039		
			(0.075)	(0.073)		
$I-\gamma$			0.061	0.063		
			(0.056)	(0.054)		
$(b-\gamma)$*$(I-\gamma)$			0.392**	0.757***		
			(0.195)	(0.189)		
$b>\gamma$					0.061*	0.048
					(0.032)	(0.031)
$I>\gamma$					0.021	0.009
					(0.030)	(0.034)
(b>γ)*(I>γ)					0.056	0.080**
					(0.036)	(0.036)
Mean Y	0.243	0.243	0.243	0.243	0.243	0.243
Player FE	No	Yes	No	Yes	No	Yes
R-squared	0.089	0.511	0.018	0.442	0.023	0.441
N	3984	3984	3984	3984	3984	3984

NOTE. Data: European experiment. The table reports OLS estimates. Outcome variable =1 if the player pays for information. $b-\gamma$ and $C-\gamma$ are normalized between 0 and 1. Controls include the order of goods and prices and good fixed effects. Variable definitions are provided in Appendix. Robust standard errors clustered at the couple level in parenthesis. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Delegating. Delegation is expected when the bias is small relative to the price of information, but only when the cost of ignorance exceeds this bias, corresponding to region A in Figure 4. To this end, we define the binary variable $(b<I)$ and interact it with the difference between b and γ. More precisely, we estimate the following equation, where we expect $\beta_3<0$ and X is defined as above:

$$Delegate = \alpha + \beta_1(b<I) + \beta_2(b-\gamma) + \beta_3(b<I)*(b-\gamma) + \beta_4' X + \epsilon \qquad (5.2)$$

The first two columns of Table 2 present the results of a reduced form estimation where the effects of b, I and γ are estimated separately. Columns 3 and 4 reports the estimation

of Equation 5.2. In columns 5 and 6, $(b-\gamma)$ is replaced by a binary indicating whether the difference is positive $(b>\gamma)$. In this case, the main coefficient of interest is β_1 since delegation occurs in zone A, where $(b<I)=1$ and $(b>\gamma)=0$. Finally, we investigate more directly the interaction between the decision to delegate and the decision to acquire information (columns 7 and 8). As indicated in Figure 4, when no information has been paid, uninformed participation can occur if the bias is large. We thus interact remaining uninformed with b being greater than I.[11] Columns 2, 4, 6, 8 include individual fixed effects.

The first two columns indicate that, as expected, delegation is more likely when the bias is low, the cost of ignorance is large and the price of information is large. More interestingly, the following columns reveal that delegation is more likely for the relevant combination of the variables, corresponding to region A in Figure 4. Thus, from column 3, delegation is more likely to occur when the bias is smaller than the cost of ignorance $(b<I)$ and $b-\gamma$ is larger than 0.26, which corresponds to the last quartile of the observed distribution.[12] These results are confirmed by the estimation reported in Column 5 that indicates that delegation is 11 percentage points more likely when both constraints are satisfied (zone A requires $(b<I)=1$ and $(b>\gamma)=0$).[13] (Note that when the bias is smaller than the cost of ignorance - below the diagonal in Figure 4 - the estimated probability of delegation is equal to zero.) Finally, Columns 7 and 8 confirm that players are much more likely to delegate when they did not acquire information. These last estimations confirm that players understood the link between both decisions and acted rationally and strategically.

[11] Since $No\ info$ is itself a decision, what we are interested in here is the correlation between these two decisions.

[12] The value of 0.26 is the solution to 0.094-0.053x-0.307x=0.

[13] Here the coefficient of interest is the one associated with $(b<I)$

Table 2: Delegating, bias, cost of ignorance and price of information - European experiment

	Delegate (1)	Delegate (2)	Delegate (3)	Delegate (4)	Delegate (5)	Delegate (6)	Delegate (7)	Delegate (8)
Bias b	-0.002**	-0.000						
	(0.001)	(0.001)						
Cost of ignorance I	0.001	0.001						
	(0.001)	(0.001)						
Price of information γ	0.015***	0.015***						
	(0.002)	(0.002)						
$b < I$			0.094**	0.049	0.114***	0.078**		
			(0.041)	(0.041)	(0.044)	(0.039)		
$b - \gamma$			-0.053	-0.053				
			(0.088)	(0.087)				
$(b < I)*(b - \gamma)$			-0.307**	-0.105				
			(0.148)	(0.150)				
$b > \gamma$					0.018	0.010		
					(0.043)	(0.035)		
$(b < I)*(b > \gamma)$					-0.108**	-0.067		
					(0.049)	(0.042)		
No info							0.345***	0.374***
							(0.031)	(0.032)
$b >= I$							-0.035	0.030
							(0.041)	(0.044)
(No info)*$(b >= I)$							-0.043	-0.114**
							(0.048)	(0.047)
Mean Y	0.628	0.628	0.628	0.628	0.628	0.628	0.628	0.628
Player FE	No	Yes	No	Yes	No	Yes	No	Yes
R-squared	0.015	0.486	0.013	0.480	0.014	0.481	0.093	0.531
N	3984	3984	3984	3984	3984	3984	3984	3984

NOTE. Data: European experiment. The table reports OLS estimates. Outcome variable =1 if the player delegates. $b-\gamma$ is normalized between 0 and 1. Controls include the order of goods and prices and good fixed effects. Variable definitions are provided in Appendix B.3. Robust standard errors clustered at the couple level in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Predicting overall behavior from Figure 4 We now investigate the combined decisions of acquiring information and participating, as predicted by the theory: remaining ignorant and delegating (zone A in Figure 4), acquiring information and participating (zone B), and remaining ignorant and participating (zone C). Overall, players chose to remain uninformed and delegate in 54% of the cases, while in 15% they decided to pay and participate and in 22% to participate uninformed (instances where they paid for information but did not participate remained marginal, equal to 9%). Building on Figure 4, we first describe the occurrence of these three behaviors in the $(b-\gamma, I-\gamma)$ space. (The distances to the two thresholds v and w are again measured by the normalized difference between the bias and the cost of ignorance relative to the price of information.) Figure 6 reports, for a given combination of $(b-\gamma)$ and $(I-\gamma)$, the observed probability of each behavior.[14] In the top left contour plot, the probability to not pay and delegate is

[14]We restrict attention to combinations of parameters for which there are at least 10 observations across all rounds.

much smaller when both the cost of ignorance and the bias are large, while the reverse holds true for the probability to pay and participate (top right contour plot). Uninformed participation seems more likely when the bias is large and the cost of ignorance is relatively small (bottom left contour plot). This simple description of the raw data seems to support our predictions.

Figure 6: Observed behavior

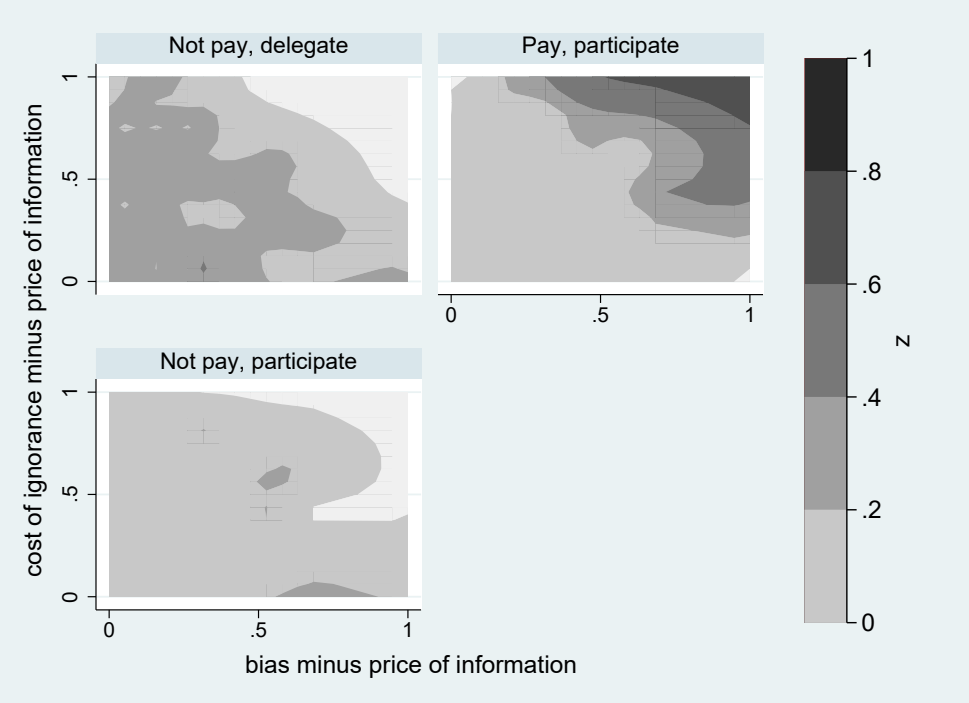


Table 3 provides estimates of these three behaviors in a more structured approach. As expected, (uninformed) delegation occurs above the diagonal (captured by a binary variable indicating whether the cost of ignorance is larger than the bias) when the bias is small enough compared to the cost of information. Thus, the probability of delegation increases by about 20 percentage points when the normalized difference between γ and b goes from 0 to 1 (summing coefficients in columns 1 or 2). Informed participation is between 41 and 54 percentage points more likely to take place when both the bias and the cost of ignorance (in normalized differences with respect to γ) are largest (columns 3 and 4). Finally, columns 5 and 6 indicate that uninformed participation is more likely to occur below the diagonal ($b > I$) when the cost of ignorance is small ($\gamma - I$ is large). Overall, players' behaviors react to parameter values in the direction predicted by our model.

Table 3: Overall behavior and the combination of parameters - European experiment

	Not pay delegate (1)	Not pay delegate (2)	Pay participate (3)	Pay participate (4)	Not pay participate (5)	Not pay participate (6)
$b < I$	-0.241**	-0.170				
	(0.117)	(0.113)				
$\gamma - b$	0.161*	0.161*				
	(0.090)	(0.086)				
$(b < I)*(\gamma - b)$	0.296**	0.208				
	(0.144)	(0.141)				
$b - \gamma$			-0.030	-0.129*		
			(0.061)	(0.073)		
$I - \gamma$			-0.043	-0.002		
			(0.044)	(0.046)		
$(b - \gamma)*(I - \gamma)$			0.481***	0.669***		
			(0.161)	(0.196)		
$b > I$					-0.119	-0.015
					(0.087)	(0.084)
$(\gamma - I)$					-0.071	0.134**
					(0.062)	(0.060)
$(b > I)*(\gamma - I)$					0.245**	0.046
					(0.113)	(0.112)
Mean Y	0.535	0.535	0.151	0.151	0.222	0.222
Player FE	No	Yes	No	Yes	No	Yes
R-squared	0.013	0.473	0.014	0.398	0.014	0.503
N	3984	3984	3984	3984	3984	3984

NOTE. Data: European experiment. The table reports OLS estimates. Differences between b (I) and γ are normalized between 0 and 1. Variable definitions are provided in Appendix B.3. Robust standard errors clustered at the couple level in parenthesis. *** <0.01, ** < 0.05, * <0.1.

Welfare. The theory predicts that those who delegate are not necessarily worse off than the ones who take a decision according to their own preferences. We investigate this conjecture using two approaches. In the first one, we focus on active players and compare their payoffs in the rounds where they decided to delegate to those where they did not (including the initial endowment and, when appropriate, the price of information). Second, we directly compare the payoff of active players to that of their partners (who had the same endowment but always paid for information), across situations in which they delegated and in which they participated.

Proposition 2 indicates that the payoff of the delegator is larger (smaller) than that of her partner when the bias is small (large). To illustrate this result, we explicitly include an interaction term between delegation and the bias b in all specifications. The results are provided in Table 4 where the dependent variable is either the active player's payoff (Columns 1 and 2) or the difference in payoffs between the active player and her partner

(Columns 3 and 4). As predicted by the theory, the active player is better off delegating, provided that the difference in preferences (b) is not too large. If there is no bias in preferences, the payoff under delegation is larger by 2.4, a 5% increase from the average payoff (Column 1). This increase is reduced to 1 if the bias is equal to 15 (the sample mean of the bias). When we compare the active player payoff to that of her partner, we obtain similar outcomes, confirming proposition 2. In the absence of bias, the delegator's payoff is larger by 2.8. However, with an average bias of 15, his payoff is smaller than that of her partner by 0.7. As suggested by the theory, there is thus a reversal in the comparison of the payoffs depending on the importance of the bias.

Table 4: Welfare - European experiment

	Player payoff (1)	Player payoff (2)	Difference player-partner (3)	Difference player-partner (4)
Delegation	2.393***	2.358***	2.771***	3.658***
	(0.577)	(0.711)	(0.412)	(0.537)
Bias b	-0.002	-0.002	-0.051*	-0.014
	(0.021)	(0.026)	(0.027)	(0.028)
Bias b × Delegation	-0.088***	-0.125***	-0.181***	-0.213***
	(0.029)	(0.032)	(0.033)	(0.035)
Mean Y	50.746	50.746	4.045	4.045
Player FE	No	Yes	No	Yes
R-squared	0.015	0.231	0.115	0.379
N	3984	3984	3984	3984

NOTE. Data: European experiment. The table reports OLS estimates. Outcome variables are: Player's payoff in euros (Columns 1 and 2) or the difference btw player and partner payoff (Columns 3 and 4). Variable definitions are provided in Appendix B.3. Robust standard errors clustered at the couple level in parenthesis. *** < 0.01, ** < 0.05, * < 0.1.

6 Empirical analysis: Beninese experiment

In the Beninese sample, the experiment was conducted exclusively with husbands who had to decide whether to pay for information, which automatically involved them in the choice between cash and the good. Therefore, opting not to pay for information implied delegation. Each subject was offered only one good (randomized among participants) but faced several prices of information. Overall, delegation was chosen in 71% of the cases. While the willingness to pay of players was of 4115 FCFA on average, the average bias, defined as the difference in WTP between spouses, was equal to 1638 FCFA. We observe a large number of cases (37%) for which husbands and wives agreed over the choice to be

made, regardless of the value of the lottery.[15] In that case, the "effective bias" is equal to zero and delegation is expected.

Delegating. Compared to the previous experiment, the behavioral predictions are more straightforward. Delegation is expected when the bias is small compared to the price of information. In addition to using the continuous measure of the bias, we also define, given the large bunching at zero, a binary variable indicating whether the bias is strictly positive. The first two columns of Table 5 present the results of naive estimations in which the bias and the price of information are introduced independently. The next three columns involve a more structured approach that directly tests our main prediction, using the difference between the bias and the price of information, either continuously (and normalized between zero and one) or as a binary indicator ($b > \gamma$). Column 5 includes individual fixed effects, exploiting only the variation in the price of information (in contrast to the European experiment, players were exposed to only one good, resulting in a single observed bias per individual).[16]

Columns 1 and 2 indicate that the price of information is an important driver of the decision to delegate. The coefficient on the bias has the expected sign and is significant when we use a binary definition. Turning to the more structured approach, the difference between the bias and the price of information appears as a strong predictor of delegation. When the bias is strictly larger than the cost of information ($b > \gamma$), delegation decreases by 8.7 to 9.8 percentage points or 12% to 14% of the sample mean (Columns 4 and 5).

In the last column, we take advantage of the extensive information available through the survey to briefly explore whether gender norms may influence the decision of husband to delegate decision power to their wife. We use two measures of norms, based on how women perceive the community's opinion regarding women economic empowerment. Specifically, we asked whether it is considered shameful for husbands to contribute less than their wives to the household budget, and whether it is deemed inappropriate for women to cultivate pineapple, the region's primary cash crop, traditionally grown exclusively by men.[17] Norms appear to have a strong, independent, effect on delegation: gender conservatism is associated with significantly lower levels of delegation. Estimates reported in Column

[15] This is because many respondents expressed a willingness to pay larger than the upper bound of the lottery.

[16] We do not include individual fixed effects when using the continuous difference between the bias and the price of information since it is equivalent to simply estimating the effect of the price of information on delegation. When including the binary indicator, the estimation relies on players for whom the price of information is sometimes larger and sometimes smaller than the bias (8.5% of the sample).

[17] In the local context, as in other areas in Africa (see Meillassoux (1975)), men and women typically farm different plots with some crops considered as "male crops" and others as "female crops". In Benin, pineapple has until recently been almost exclusively farmed by men.

6 indicate that delegation is 10 to 12 percentage points less likely when wives believe that the community reproves either wives being more economically successful than their husband (breadwinner norm) or the production of pineapple by women (male crop norm). The coefficient on $b > \gamma$ remains very stable.

Table 5: Delegation, bias and price of information - Beninese experiment

	Delegate (1)	Delegate (2)	Delegate (3)	Delegate (4)	Delegate (5)	Delegate (6)
Bias b	-0.013					
	(0.011)					
$b > 0$		-0.094**				
		(0.040)				
Info price γ	0.146***	0.146***				
	(0.019)	(0.019)				
$b - \gamma$			-0.111			
			(0.069)			
$b > \gamma$				-0.087**	-0.098**	-0.094**
				(0.038)	(0.039)	(0.038)
Breadwinner norm						-0.117***
						(0.041)
Male crop norm						-0.109**
						(0.048)
Mean Y	0.707	0.707	0.707	0.707	0.707	0.707
Player FE	No	No	No	No	Yes	No
R-squared	0.014	0.021	0.006	0.010	0.878	0.034
N	1446	1446	1446	1446	1446	1446

NOTE. Data: Beninese experiment. The table reports OLS estimates. Outcome variable =1 if the player delegates. Bias and info price are measured in thousands of FCFA. $b - \gamma$ is normalized between 0 and 1. We control for the good used in the experiment. Variable definitions are provided in Appendix B.3. Robust standard errors clustered at the couple level in parenthesis. $***< 0.01$, $**< 0.05$, $*< 0.1$.

Welfare. In the Beninese sample, we can again test whether delegation is associated with larger payoffs, provided the bias in preference is not too large (Proposition 2). As in the European experiment, we compute for each round, the total payoff of the active player and the passive player, by summing the endowment (reduced by the cost of information if necessary) and the payoff from either the lottery or the good (using players' WTP), depending on the preferences of the decision maker.[18] We then regress either the active player payoff or the difference in payoff across the player and his wife on the decision to delegate interacted with the bias. Results are reported in Table 6, individual fixed effects are included in Columns 2 and 4 (the independent effect of the bias can then not be estimated).

[18]Details on the construction of the variables are provided in Appendix B.3.

We again find that, when players delegate, their payoff is higher than when they decide to pay for information and participate to the decision, except if the bias is large. This result holds when we include player fixed effect and exploit changes in delegation behavior (following changes in the price of information). With a bias of zero, the difference is 716 FCFA (column 1), or 23% of the mean payoff. With a bias equal to the average (1638 FCFA), the difference is reduced by 363 FCFA. When we compare the spouses's payoff, with or without fixed effects, we reach a similar conclusion: while delegating is associated with a higher relative payoff of the delegator in the absence of bias in preferences, when the bias increases, this advantage fades away.

Table 6: Welfare - Beninese experiment

	Husband payoff (1)	Husband payoff (2)	Difference husband-wife (3)	Difference husband-wife (4)
Delegation	0.716***	0.580***	0.690***	0.923***
	(0.084)	(0.085)	(0.048)	(0.048)
Bias b	-0.153***		0.001	
	(0.028)		(0.043)	
Bias b × Delegation	-0.069**	-0.178***	-0.134**	-0.104**
	(0.035)	(0.058)	(0.054)	(0.052)
Mean Y	3.129	3.129	0.358	0.358
Player FE	No	Yes	No	Yes
R-squared	0.252	0.739	0.118	0.752
N	1446	1446	1446	1446

NOTE. Data: Beninese experiment. The table reports OLS estimates. Outcome variables are: husband's payoff in 1000 of CFA (Columns 1 and 2), the difference between husband and wife payoff in 1000 of CFA (Columns 3 and 4). We control for the good used in the experiment. Robust standard errors clustered at the couple level in parenthesis. *** < 0.01, ** < 0.05, * < 0.1.

7 The relevance of the experiments for actual behavior

In this section, we take advantage of the two surveys administered together with the experiment to investigate the correlations between the decision to delegate in the games and how couples function in real life. To this end, we focus on three main dimensions: disagreements over household decisions; conflicts and reproaches; and delegation of household decisions. We expect disagreements and conflicts, which we interpret as indicative of large differences in preferences, to be correlated negatively with the propensity to delegate in the experiment. By contrast, the latter should be positively correlated with delegation

in real life.

Europe. In the European sample, we define disagreement as an index aggregating three dimensions: the partner's ability to take good financial decisions, the frequency of financial disagreements in life and the satisfaction regarding the partner's contribution to household expenses (all indexes range between 0 and 1). We define reproach as an index combining the frequency of reproaches addressed by the respondent to her partner and that addressed by the partner. Regarding delegation, we asked respondents how their couple decides on three large expenses: car, vacation and large appliances. We build an index of delegation by counting the number of these decisions that they tend to delegate to their partner. Finally, we used a vignette to elicit whether they are willing to delegate for a decision of lower importance, but relevant in the European context. Specifically, the scenario described a situation in which the respondent is short of time and her partner proposes to take care of the wedding gift (out of a traditional wedding list) for a coming up couple invitation. Appendix B.3 provides a detailed description of each variable and separate estimations for each component of the indexes.

Table 7 reports the results of estimations where the main explanatory variable of interest is the average delegation over the various rounds of the game. We additionally control for gender, education levels and the duration of the relationship. Standard errors are clustered at the couple level. All the results suggest a strong correlation between the decisions in the games and the real life behavior of the couples. Thus, delegation in the experiment is associated with a decrease in disagreements of 5 percentage points (which represents 20% of the sample mean) and in the frequency of reproaches of 6 percentage points (again about 20% of the mean). It is also correlated with delegation in life: it is associated with 0.14 additional large expenses delegated to the partner (40% of the mean) and with a 18 percentage points increase in the delegation of the wedding gift (22% of the mean). We conclude from this exercise that the behavior in the experiment reflects real life dynamics.

Table 7: External validity - European experiment

	Index of disagreement (1)	Index of reproach (2)	Delegation in life (3)	Delegation vignette (4)
Delegation	-0.053**	-0.061**	0.135*	0.181***
	(0.021)	(0.030)	(0.073)	(0.047)
Man	0.005	0.020	-0.043	0.178***
	(0.010)	(0.013)	(0.052)	(0.028)
Educ: bachelor	-0.028	0.022	-0.153*	0.079*
	(0.021)	(0.030)	(0.082)	(0.047)
Educ: post-graduate	0.001	-0.010	-0.134*	0.126***
	(0.021)	(0.029)	(0.076)	(0.041)
Relationship (years)	-0.001	0.000	-0.004	-0.001
	(0.001)	(0.001)	(0.003)	(0.002)
Mean Y	0.236	0.278	0.360	0.808
R-squared	0.019	0.015	0.012	0.086
N	661	661	661	661

NOTE. Data: European experiment. The table reports OLS estimates. Outcome variables are indexes of disagreement and of reproach (ranging from 0 to 1), delegation in life (survey measure, in number of decisions delegated) and delegation elicited through a vignette. Variable definitions are provided in Appendix B.3. The explanatory "delegation" is the average propensity to delegate over game rounds. Control include gender, education, duration of the relationship (in years). Robust standard errors clustered at the couple level in parenthesis. *** < 0.01, ** < 0.05, * < 0.1.

Benin. We also provide evidence in the Beninese sample along the three dimensions defined above. We first construct an index of disagreement, which measures whether two critical decisions made by the couple align with the decisions the respondent would have made independently. These decisions concern the wife's own health and that of the couple children. We also asked husbands and wives (separately) whether, in the event of an increase in their own income, their partner tends to reduce her contributions to household expenses (the "common pot"). We aggregate answers to these two questions into a single index of free riding. We were very careful in eliciting the prevalence of couple conflicts by designing a self-administered survey module answered by women. We aggregated the frequency of financial retaliation, explicit threats and insults in their everyday life.

Concerning delegation, we first analyze whether husbands tend to delegate to their wives the control and supervision of workers on their own agricultural pineapple fields (the local cash crop), a delegation decision of critical importance in the local context. We then construct classical measures of female empowerment and autonomy. The first index measures the freedom of movement to visit relatives, conduct economic activities in the village or in the nearby capital city. We measure financial empowerment with the help of two variables. The first one is an index considering whether the woman is allowed to

independently buy land or buy furniture (provided she would have the financial means). The second one captures whether the woman can decide independently over the use of her own income.

We again find strong correlations between delegation in the game and overall harmony in couples (Table 8). Disagreements about health decisions, free riding on the partner's income and the prevalence of tensions and verbal violence are lower in couples in which the husband is more prone to delegating. Couples in which the husband delegated display much lower levels in these three dimensions: disagreements are more than halved, free riding is lowered by more than a third of the sample mean, and conflicts are less frequent, although not as significantly.

Table 8: External validity - Beninese experiment

	Index of disagreement (1)	Index of free-riding (2)	Index of conflict (3)	Delegate supervision (4)	Freedom movement (5)	Financial empowerment 1 (6)	Financial empowerment 2 (7)
Delegation	-0.163***	-0.168***	-0.066	0.217***	0.061***	-0.054***	-0.102*
	(0.044)	(0.045)	(0.041)	(0.063)	(0.016)	(0.015)	(0.055)
Age husband	-0.004	-0.001	0.002	0.007	0.000	-0.000	-0.001
	(0.003)	(0.003)	(0.003)	(0.004)	(0.001)	(0.001)	(0.004)
Age wife	-0.002	0.000	-0.001	-0.010**	0.002**	0.002**	0.005
	(0.003)	(0.003)	(0.003)	(0.005)	(0.001)	(0.001)	(0.004)
Any edu husband	-0.090**	-0.062	0.005	0.001	-0.013	-0.023	0.001
	(0.042)	(0.046)	(0.043)	(0.065)	(0.015)	(0.017)	(0.057)
Any edu wife	-0.018	-0.025	-0.083**	0.070	0.008	0.033**	0.033
	(0.038)	(0.039)	(0.037)	(0.057)	(0.014)	(0.015)	(0.051)
Mean Y	0.265	0.398	0.264	0.746	0.645	0.693	0.487
R-squared	0.071	0.047	0.042	0.110	0.078	0.043	0.023
N	466	466	465	272	466	466	466

NOTE. Data: Beninese experiment. The table reports OLS estimates. All outcomes (defined in Appendix B.3) range from 0 to 1. Delegation is the average propensity to delegate across rounds in the game. Controls include the good in the experiment, spouses age, education, number of children and the ownership of a television. Robust standard errors clustered at the couple level in parenthesis. *** < 0.01, ** < 0.05, * < 0.1.

Regarding delegation, workers supervision is 22 percentage points higher in couples where the husband delegated (29% of the sample mean). When it comes to female empowerment, the results are more mixed. Women are slightly more mobile (9.4% of the sample mean) but significantly less financially empowered. Under delegation, women are 10 percentage points less likely to independently decide over the use of their own income (21% of the sample mean) and 5.8 percentage points less likely to be allowed to make significant purchases with their own money (7.7% of the sample mean). It thus appears that financial empowerment is *negatively* correlated with delegation. While we cannot provide further exploration of the mechanisms underlying this correlation, one possible hypothesis is that controlling husbands do not need to take part in the decision as they trust their wife to implement their preferred choices. This control need not be explicit, as in a life-long

relationship, the wife may have internalized her husband's preferences.[19]

8 Concluding discussion

In this paper, we develop a theoretical framework to identify conditions under which different decision structures are optimal within households. We find that delegation may emerge as an endogenous equilibrium based on how preference alignments and information costs compare. Interestingly, the spouse who receives authority and chooses her preferred project may be worse off than the one who delegates.

Our experimental results in Benin, Belgium and France support the idea that the mode of decision making varies according to the compatibility of the spouses' preferences and their comparative advantage in acquiring relevant information. That decision modes may be endogenous and spouses choose them strategically thus appear rather universal.

The notion of information cost can be extended to the cost associated with the mental load of "being in charge" and deciding alone, which affects welfare. A dimension left unexplored here is that being in charge, deciding alone, also implies being accountable for good or bad choices to the other spouse, opening the door to retaliation and reproaches. Intra-household power dynamics may prompt the deciding spouse to implement the other's preferences, to avoid conflicts (see e.g. Bakhtiar et al. (2022)). This is in line with recent research on decision making and women autonomy, that suggests that through indirect or internalized control, women may deceptively appear to have large apparent, but no real, decision power (e.g. Baland et al. (2024); Donald et al. (2020)). Relatedly, in this paper we assumed that individual preferences are given and stable. Yet, as highlighted in the Beninese experiment, they may be strongly influenced by the prevailing social norms, in particular related to women autonomy. Moreover, through repeated interactions in couple life, preferences may evolve and either become more compatible or better reflect a collective compromise, thereby facilitating delegation (see e.g. Hohn et al. (2022)).

In the paper, we analyse the household decision structure for specific choices, assumed independent. In real life, spouses may develop expertise in domains in which they specialize and take numerous decisions. The project in our model could be interpreted as a sphere of expertise in which spouses may specialize. However this raises the possibility that, in a more dynamic setting, investing in a particular expertise (lowering future information costs) may itself be a strategic decision to gain autonomy in that sphere. The development of parallel spheres of expertise may, in equilibrium, result in separate domains in

[19] It is striking that our three measures of empowerment are uncorrelated, as if, in this context, freedom of movement does not preclude financial control and domination.

which each spouse enjoys autonomy but refrains from interfering in the other spouse's sphere (Lundberg and Pollak, 1993).

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Appendix - For Online Publication

Delegation in the family

A Theoretical Appendix

A.1 Proofs

Proof of Lemma 1. Case 1: both informed

We compare each spouse's utility under delegation and bargaining. In the contest, each spouse decides on her level of effort, taking the effort level of the other spouse as given.

The expected payoff of the contest for each spouse is given by:

$$V_H(e_H, e_W) = \frac{e_H}{e_H + e_W}0 + \frac{e_W}{e_H + e_W}(-b^2) - ce_H$$
$$V_W(e_H, e_W) = \frac{e_W}{e_H + e_W}0 + \frac{e_H}{e_H + e_W}(-b^2) - ce_W$$

Deriving the first order conditions for each spouse, we find:

$$e_H^* = e_W^* = \frac{b^2}{4c} \tag{A.1}$$

and the expected payoff for each spouse is given by:

$$V_H(e_H^*, e_W^*) = -\tfrac{3}{4}b^2 \tag{A.2}$$
$$V_W(e_H^*, e_W^*) = -\tfrac{3}{4}b^2 \tag{A.3}$$

If the husband delegates to the wife, his payoff is given by (2.3) and is equal to $-b^2$. Since $-b^2 < -\frac{3}{4}b^2$, the informed husband never delegates. Similarly, an informed wife never delegates. As a result, informed spouses always bargain.

Case 2: none informed

Choices of uninformed spouses are described by Equations (2.5) and (2.6) and the expected payoffs of the contest are:

$$V_H(e_H, e_W) = \frac{e_H}{e_H + e_W}\left(-\frac{1}{2}(-L)^2 - \frac{1}{2}L^2\right) + \frac{e_W}{e_H + e_W}\left(-\frac{1}{2}(-L+b)^2 - \frac{1}{2}(L+b)^2\right) - ce_H$$
$$V_W(e_H, e_W) = \frac{e_W}{e_H + e_W}\left(-\frac{1}{2}(-L)^2 - \frac{1}{2}L^2\right) + \frac{e_H}{e_H + e_W}\left(-\frac{1}{2}(-L+b)^2 - \frac{1}{2}(L+b)^2\right) - ce_W$$

Each spouse maximizes her expected payoff with respect to her effort, yielding the equilibrium level of efforts:

$$e_H^* = e_W^* = \frac{b^2}{4c}$$

and the expected payoff for each spouse is given by:

$$V_H(e_H^*, e_W^*) = -L^2 - \tfrac{3}{4}b^2 \tag{A.4}$$
$$V_W(e_H^*, e_W^*) = -L^2 - \tfrac{3}{4}b^2 \tag{A.5}$$

If the husband delegates to the wife, his payoff is given by (2.5) and is equal to $-L^2 - b^2$. Since $-L^2 - b^2 < -L^2 - \frac{3}{4}b^2$, the uninformed husband never delegates to his uninformed wife. The same applies to the wife. As a result, when they are both uninformed, they always enter into a contest.

Case 3: only one is informed

Consider the situation in which the wife is informed and the husband is not (the situation is symmetric when the husband is informed and the wife is not).

In a contest, the wife may adjusts her effort level to the state of the world. However this implies that she reveals her private information to the husband. In this case, they enter into an informed contest and her payoff is then given by equation (A.3). Comparing this payoff with what she obtains while deciding alone, we see that is never optimal for her to reveal the state of the world. (It is also clear that she has no interest in lying about the state of the world.)

We now study the case in which the effort of the wife does not adapt to the state of the world. In this case,the husband, who is uninformed, cannot adjust his effort level to the

state of the world. His expected payoff is:

$$\begin{aligned} V_H\left(e_H, e_W\right) &= \frac{1}{2}\left(\frac{e_H}{e_H+e_W}\left(-(-L)^2\right)+\frac{e_W}{e_H+e_W}\left(-b^2\right)\right) \\ &\quad +\frac{1}{2}\left(\frac{e_H}{e_H+e_W}\left(-(L)^2\right)+\frac{e_W}{e_H+e_W}\left(-b^2\right)\right)-ce_H \\ &= \frac{1}{2}\left(-b^2+\frac{e_H}{e_H+e_W}\left(-(L)^2+b^2\right)\right) \\ &\quad +\frac{1}{2}\left(-b^2+\frac{e_H}{e_H+e_W}\left(-(L)^2+b^2\right)\right)-ce_H \end{aligned}$$

Since $L \geq b$, the optimal level of effort is equal to 0 ($\frac{\partial V_H}{\partial e_H} < 0$ always). This is because the bias in preferences is smaller than the utility loss when an uninformed decision is taken. The husband therefore never engages into a contest since his payoff under a contest is strictly smaller than the one he obtains under delegation (as given by equation (2.3)).

Proof of Prop. 1. Consider first the case where $b \leq L$. If the wife is informed, does the husband want to acquire information? We compare his utility level if informed (where a contest occurs) and if not (where delegation obtains). These utility levels are given by $-\frac{3}{4}b^2 - \gamma_H$ and $-b^2$: the husband always seeks information if and only if $\gamma_H < \frac{b^2}{4}$. If the wife is not informed, we again compare the husband's utility levels if informed (he receives delegation) and if not (contest). These utility levels are respectively $-\gamma_H$ and $-L^2 - \frac{3}{4}b^2$. He seeks information if and only if $\gamma_H < L^2 + \frac{3}{4}b^2$. In short, if $\gamma_H < \frac{b^2}{4}$, seeking information is a dominant strategy, if $\gamma_H > L^2 + \frac{3}{4}b^2$, not seeking information is a dominant strategy while if $\frac{b^2}{4} < \gamma_H < L^2 + \frac{3}{4}b^2$, the husband's decision depends on the strategy of his wife.

Similar conditions obtain for the wife. As a result, if $\gamma_H < \frac{b^2}{4}$ and $\gamma_W < \frac{b^2}{4}$, acquiring information is always profitable for both spouses and they enter into a contest. If $\gamma_H > L^2 + \frac{3}{4}b^2$ and $\gamma_W > L^2 + \frac{3}{4}b^2$, acquiring information is never profitable and an uninformed contest takes place. If both $\frac{b^2}{4} < \gamma_H < L^2 + \frac{3}{4}b^2$ and $\frac{b^2}{4} < \gamma_W < L^2 + \frac{3}{4}b^2$, both spouses prefer to delegate the decision to the other (informed) spouse rather than to seek information. The payoff matrix corresponds to that of a chicken game which allows for two pure and one mixed equilibria. The equilibrium outcomes allow for delegation to either spouse, but also, in a mixed equilibrium, for informed or uninformed contests. We now investigate the result of the game when the spouses' information costs fall into different intervals. The husband always delegates to his wife if $\gamma_W < \frac{b^2}{4}$ and $\gamma_H > \frac{b^2}{4}$, or if $\frac{b^2}{4} < \gamma_W < L^2 + \frac{3}{4}b^2$ and $\gamma_H > L^2 + \frac{3}{4}b^2$. Symmetrically, the wife always delegate if $\gamma_H < \frac{b^2}{4}$ and $\gamma_W > \frac{b^2}{4}$, or if $\frac{b^2}{4} < \gamma_H < L^2 + \frac{3}{4}b^2$ and $\gamma_W > L^2 + \frac{3}{4}b^2$.

Proof of Prop. 3. We first describe the collective solution. Since $\gamma_W < \gamma_H$, the woman is in charge of acquiring the information when the household finds it profitable.

When the household seeks information, the household chooses y so as to maximize $-\mu\left(y-m\right)^2-\left(1-\mu\right)\left(y-\left(m+b\right)\right)^2-\left(1-\mu\right)\gamma_W$. This yields: $y^*=m+\left(1-\mu\right)b$, and $U_H=-\left(\left(1-\mu\right)b\right)^2; U_W=-\left(-\mu b\right)^2-\gamma_W$.

When information is not sought, the household maximizes:

$max_y\mu\left(-\frac{1}{2}\left(y+L\right)^2-\frac{1}{2}\left(y-L\right)^2\right)+\left(1-\mu\right)\left(-\frac{1}{2}\left(y+L-b\right)^2-\frac{1}{2}\left(y-L-b\right)^2\right)$ which yields $y^*=\left(1-\mu\right)b$. The corresponding utility levels in the household are given respectively by $E\left(U_H\right)=-\left(1-\mu\right)^2b^2-L^2$ for the husband, and $E\left(U_W\right)=-\mu^2b^2-L^2$ for the wife.

We now compare those two situations to express the condition under which they, as a couple, will want to get informed:

$\mu\left(-\left(\left(1-\mu\right)b\right)^2\right)+\left(1-\mu\right)\left(\left(-\left(-\mu b\right)^2\right)-\gamma_W\right)<\mu\left(-\left(1-\mu\right)^2b^2-L^2\right)+\left(1-\mu\right)\left(-\mu^2b^2-L^2\right)$ which always holds since $L^2>\left(1-\mu\right)\gamma_W$.

In other words, the household will always find it profitable to be informed as the cost borne by the wife is smaller than the total utility losses from not being informed, as measured by L^2.

Three cases have to be distinguished:

Case 1: When not cooperating, the spouses choose to delegate to the wife. We compare $\left\{U_H^{NC}=-b^2,U_W^{NC}=0-\gamma_w\right\}$ to $\left\{U_H^C=-(1-\mu)^2b^2,U_W^C=-\mu^2b^2-\gamma_w\right\}$:

$U_H^C>U_H^{NC};U_W^C<U_W^{NC}$. The wife is better off in the non-cooperative solution. This is rather natural, as, in the two situations compared, she seeks the information and pays the full burden thereof, but under delegation, she is free to choose her preferred solution, instead of compromising with her husband.

Case 2:$\gamma_H<\frac{b^2}{4}$, so that, when not cooperating, the spouses choose the informed contest. We compare

$\left\{U_H^{NC}=-\frac{3}{4}b^2-\gamma_H,U_W^{NC}=-\frac{3}{4}b^2-\gamma_w\right\}$ to $\left\{U_H^C=-(1-\mu)^2b^2,U_W^C=-\mu^2b^2-\gamma_w\right\}$: $U_H^C>U_H^{NC};U_W^C>U_W^{NC}$. The cooperative solution dominates as long as $\sqrt{\frac{3}{4}}\geq\mu\geq1-\sqrt{\frac{3}{4}+\frac{\gamma_H}{b^2}}$.

Case 3: $\gamma_W>\frac{3b^2}{4}+L^2$ so that, in the non cooperative outcome, no spouse gets informed, while the cooperative solution implies being uninformed as long as $\gamma_W>\frac{L^2}{1-\mu}$. $\frac{L^2}{1-\mu}$ is

smaller than $\frac{3b^2}{4} + L^2$ for $\mu < \frac{\frac{3b^2}{4}}{L^2+\frac{3b^2}{4}}$. Assuming this, we compare

$\left\{U_H^{NC} = -L^2 - \frac{3}{4}b^2, U_W^{NC} = -L^2 - \frac{3}{4}b^2\right\}$ to $\left\{U_H^{C} = -(1-\mu)^2b^2, U_W^{C} = -\mu^2b^2 -\right\}$: for the cooperative solution to dominate what is required is that $-L^2 - \frac{3}{4}b^2 < -(\mu)^2 b^2$, which holds as long as $\mu < \sqrt{\frac{3}{4} + \frac{L^2}{b^2}}$. Since $\frac{b^2}{\frac{3}{4}b^2+L^2} < \sqrt{\frac{3}{4} + \frac{L^2}{b^2}}$, there is a parameter space in which this is true.

B Empirical Appendix

B.1 Experimental design: the European experiment

In Belgium (Namur), 97 couples were recruited through local institutions and schools. A first pool of couples (65 couples) was recruited between mid-2023 and early 2024 via email invitations sent to the employees' mailing lists of the city hall of Namur and the social services of Namur and via flyers and posters displayed in the communal areas of the provincial administration offices. A second pool of participants composed of 32 couples was recruited in 2024–2025 using flyers distributed in kindergartens and primary schools in Namur, either inserted in back-to-school documents or handed out to parents at school entrances.[20]

In France, a third pool of 235 couples were recruited in Strasbourg through the mailing list of the Laboratoire d'Économie Expérimentale de Strasbourg (LEES), using former participants registered over the previous ten years. Recruitment was organised in three sequential waves between early November 2024 and May 2025. For each wave, a different subset of former participants on the LEES mailing list was contacted.[21]

For all participants, the invitation message briefly presented the study and included a link to an independent online platform. Interested individuals followed this link and completed a short initial form. Eligibility criteria required both partners to be at least 18 years old, to be in a couple, and to have been living together for more than two years. Only couples meeting these criteria were invited to participate in the experiment.

B.1.1 Invitation email Belgian sample

Dear Sir or Madam,

We invite you to participate in a **paid study on consumer choices within couples** conducted by economics professors from **Namur, Strasbourg, and Marseille**.

[20] For more details about the invitation protocole and material, see Appendix B.1

[21] See invitation email in Appendix B.1.3.

We are seeking volunteer couples and hope that you will agree to take part!

Are you interested? Have you been in a relationship for more than two years and can you spare half an hour? Find out more about the terms and conditions and the rewards below!

If you wish to participate, you will answer questions for about **30–40 minutes** on your cell phone or any other connected device, and your partner will be invited to do the same. **Both of you must participate in the survey**.

The questions will mainly focus on personal or couple consumption choices. Specifically, you will be presented with a scenario and asked to select your preferred option from several choices. You will also be asked to answer a few general questions about yourself and your household. The questions are simple and quick to answer and mostly relate to everyday situations.

To thank you for your participation, you and your partner will receive a reward at the end of the survey based on your choices during the survey and a random draw between your choices and a surprise reward. More specifically, you will receive:

- **either a cash amount for the couple averaging €60 and up to €100 depending on the draw**,
- **or a voucher worth €60** to spend at a Namur retailer.

With a **guaranteed minimum value of €15 per person** (i.e., €30 for the couple). Thank you for your interest, and we look forward to your active participation in this project!

All data from this survey will be immediately **anonymized**, and no one will be able to link your responses to your identity. This project has been approved by the **University of Namur's research ethics committee**.

We are available at this email address to answer any questions you may have: [**contact email**]

If you are interested, click on the link or scan the QR code on your mobile phone:

QR CODE LINKING TO
THE REGISTRATION LINK
[LINK TO REGISTER TO THE STUDY]

Thank you for participating and supporting our research!

The research team

B.1.2 Flyers/advertisements distributed

Figure B1: Design for the common area of the employees of the province of Namur

B.1.3 Invitation email French sample

Dear Sir or Madam,

We are pleased to invite you to participate in a **paid online study on consumption choices within couples**, conducted by researchers from the Universities of **Strasbourg, Namur, and Aix-Marseille**.

If you have been living with your partner for more than two years and share the same home, this study is for you! Please feel free to share this information with other couples you know.

Why participate?

- **It's quick**: 20 minutes of your time, on your phone or any other connected device.
- **It's simple**: You and your partner will answer questions separately and simultaneously about everyday situations related to your consumption habits.

Figure B2: Flyers distributed in schools in Namur

- **It's paid**: Your couple can earn up to **100€**, with a guaranteed minimum of **30€ per couple**.

Anonymity guaranteed: All your answers will remain strictly anonymous, and this project has been approved by the ethics committee of the University of Namur.

Interested? Simply click on the link or scan the QR code below to participate:

QR CODE LINKING TO
THE REGISTRATION LINK
[LINK TO REGISTER TO THE STUDY]

Please note: you have until **[end date]** to participate, but the survey may end earlier if the desired number of participants is reached.

Payments: Payments are managed by the University of Strasbourg's accounting department and will be made within one month of the survey closing, subject to both spouses signing the receipt and completing the form.

Any questions? Please feel free to contact us at: [**contact email**]

Thank you for your participation and support for research!

Please feel free to share this information with couples you know.

Best regards,

The research team

B.1.4 Experimental protocol: full description

Initial contact, eligibility checks and consent One spouse first registered through a dedicated website after clicking on the recruitment link. The landing page provided further information on the study, including approximate duration, compensation, and anonymity. A short eligibility check followed, including a question on how long the respondent had been living with their partner. Eligible respondents then entered their own and their partner's contact details (email address and/or mobile phone number). The platform generated and sent an individual link to each partner. From that point, each member of the couple could access the study at any time using their personal link.

Before entering the experimental modules, both partners were reminded of the approximate length of the survey and the compensation scheme, and were asked for informed consent. Both needed to consent for the study to proceed and for their data to be used. Respondents could not return to previous questions to change their answers, but they had the possibility to report at the end of the survey if they believed they had made a mistake.

Protocol for simultaneous and independent answers The instructions emphasised that both spouses should answer simultaneously and independently. This instruction was repeated several times during the registration process and at the beginning of the survey. For technical reasons, the two individual links could not be opened in the same web browser: each partner had to use a different device or browser. This was done to reduce the risk that a single person would answer both versions of the survey.

The platform required both partners to start at the same time: if one partner had not yet opened the survey, the other could not proceed. Throughout the experiment, pop-up messages and blocking screens were implemented whenever one partner stopped answering or left the experiment for at least 2 or 10 minutes. In such cases, the other partner was asked to wait until their spouse resumed the survey. In the first two modules, additional blocking pages ensured that both partners progressed at a similar pace, again asking them to wait if one partner reached a given page too early.

To further limit coordination and discussion of answers, the surveys were designed so that at any given moment spouses were typically answering slightly different questions. In particular, wording or order differed across the two versions, and sensitive decisions were not displayed at exactly the same time. Instructions also asked partners to answer individually and, as far as possible, to isolate from each other while completing the survey.

Module 1: individual WTP under certainty and uncertainty In the first module, we elicited the willingness to pay (WTP) of each spouse for six goods. The goods were vouchers of 60€ to be used jointly by both spouses: a restaurant voucher for two people, a bookshop voucher, a massage for two, bowling, and cinema. The sixth voucher differed by site: a supermarket voucher in Namur and a multi-shop gift card in Strasbourg.

A short video explained how to answer the WTP tasks. For each good, participants were repeatedly asked to choose between receiving the voucher and receiving a specified amount of cash between 20€ and 100€, in increments of 10€ (see Figure B3). The order of cash amounts was neither strictly increasing nor strictly decreasing, in order to reduce the number of questions required to identify the switching point. Participants were informed that their answers could be implemented for payment to ensure incentive compatibility. We define WTP as the midpoint of the interval in which the switch from preferring the voucher to preferring cash occurs.

After the list under certainty, we elicited WTP under uncertainty (see Figure B4). For each good, respondents were asked to choose between the voucher and an unknown cash amount, drawn from the same range of 20€ to 100€. Both spouses faced the same set of six goods, but the order of goods was randomised independently for each spouse.

Module 2: delegation and information acquisition game The second module implemented the core delegation game. Instructions were presented through two videos (one optional, providing additional explanation) and written text. The six goods used in Module 1 were randomly allocated between the two spouses: each partner was assigned three goods, and thus played three games as the active player. The order of goods was

randomised for each spouse.

In each game, the couple had to choose between the assigned good and a lottery over cash amounts. The passive partner observed the realisation of the lottery at no cost, while the active partner initially did not. The active player received an endowment of 15€ for each game and had to make two decisions:

1. **Information decision.** The active player decided whether to pay a fee $\gamma \in \{5, 10\}$ euros to reveal the exact amount of cash in the lottery. If they chose to pay, the information cost was deducted from their endowment for that game.

2. **Delegation decision.** The active player then decided whether to participate in the final choice between the good and the lottery, or to delegate this decision to the partner. If they delegated, the partner's informed decision (based on their WTP under certainty) was implemented. If they did not delegate, the informed choice of either the active or the passive player was implemented with probability 1/2 each.

When the active player chose to pay for information, their decision was based on their informed WTP under certainty. When they chose not to pay, their choice between good and cash was based on their WTP under uncertainty. For the passive partner, the decision was always based on their informed WTP under certainty, since they observed the lottery realisation at no cost. Each spouse played three such games as the active player, each time with one of the goods allocated to them and with either a 5€ or a 10€ information fee (six games per couple in total).

Module 3: hypothetical WTP for the partner We then elicited hypothetical WTP for the partner for three goods used in Module 2. For three randomly selected goods, each respondent was asked to answer the same WTP list as in Module 1, but for what they believed their partner would choose. This module followed Module 2 in the first waves and was later randomised to appear either before or after Module 2 in the Namur school sample and the Strasbourg waves.

Module 4: post-experiment survey In the last module, each partner answered a questionnaire on individual characteristics (e.g. demographics, occupation, income), household organisation and financial management, risk preferences, and perceptions of the couple relationship (including the delegation and disagreement measures described in Section B.3.2). Payment for the experiment was conditional on both partners reaching the end of the survey.

Simultaneous play and technical checks Throughout Modules 1 to 3, the following rules governed simultaneous play:

- Both partners had to start the experiment simultaneously; otherwise the study could not proceed.
- If one partner became inactive, the survey was temporarily frozen for both, and a message asked them to wait for their partner.
- Sensitive decisions were not displayed at the same time to the two partners, and question order differed slightly across partners.

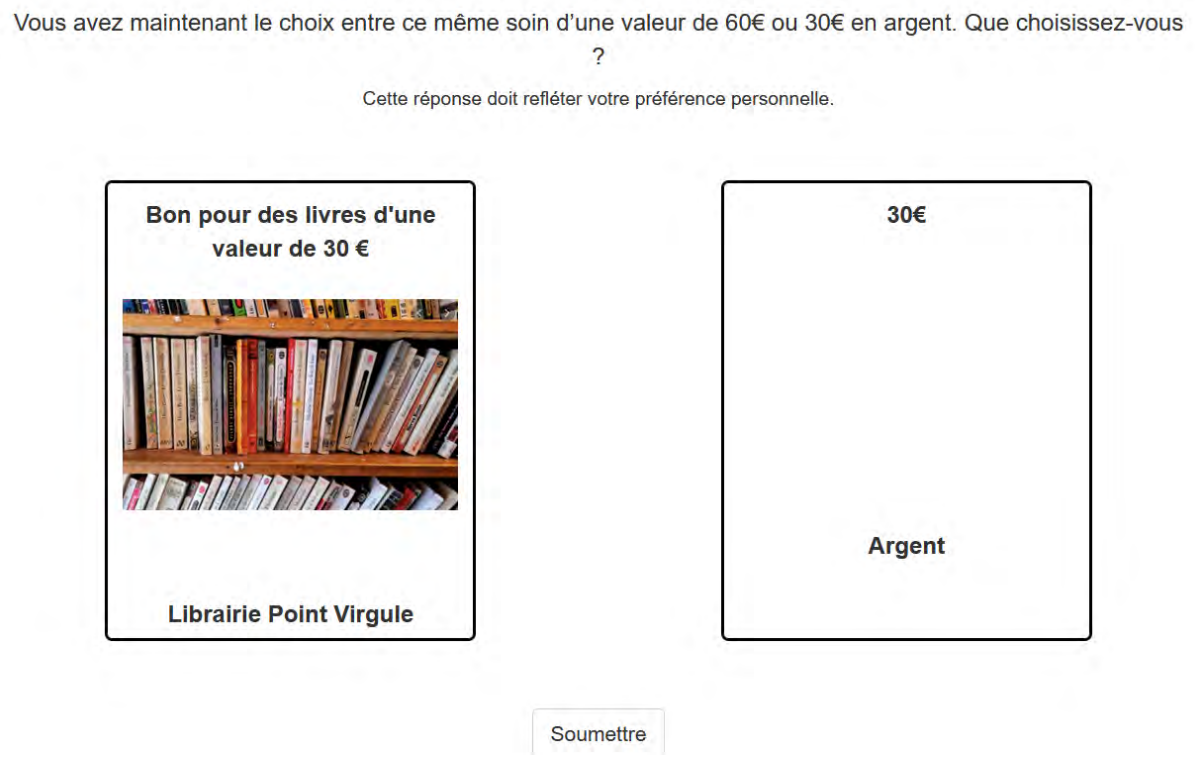
Incentives and final compensation The experiment was fully incentivised. The final payoff for each partner was the sum of:

1. **Individual compensation:** one of the six games in which the respondent was the active player was randomly selected. The individual payoff from this game was equal to the endowment (15€) minus the information cost if they chose to pay for information in that game.
2. **Couple compensation:** with 90% probability, one of the twelve delegation games played by either partner was randomly selected and implemented using the actual realisation of the lottery and the relevant WTPs. With 10% probability, a payoff was randomly drawn from the set of possible WTP outcomes (cash amounts or vouchers).

This payment rule ensured that all WTP and delegation decisions were incentive compatible, while preserving confidentiality of behaviour within couples. In particular, although the partner could infer the nature or approximate size of the couple's payoff, they could not reconstruct the exact sequence of decisions that led to it.

B.1.5 Online platform visuals: module 1

Figure B3: Module 1: individual WTP under certainty



B.2 Experimental design: Beninese experiment

B.2.1 Script of the framed delegation game

Imagine the following situation. You are at home and you have 1,000 FCFA in your wallet. Your wife is at **your children's school** [**at the micro-credit agency**]. She just learned that they are organizing a lottery there. In the lottery, one can draw an envelop that could contain an amount of money between 1,000 FCFA and 6,000 FCFA. Your wife can therefore choose between two options:

1. Either she chooses to draw an envelop, of which she knows the amount of money inside, and keeps the money.

2. Or she chooses instead to receive **a complete pencil case for school** [**a thermos for food**] that was introduced earlier.

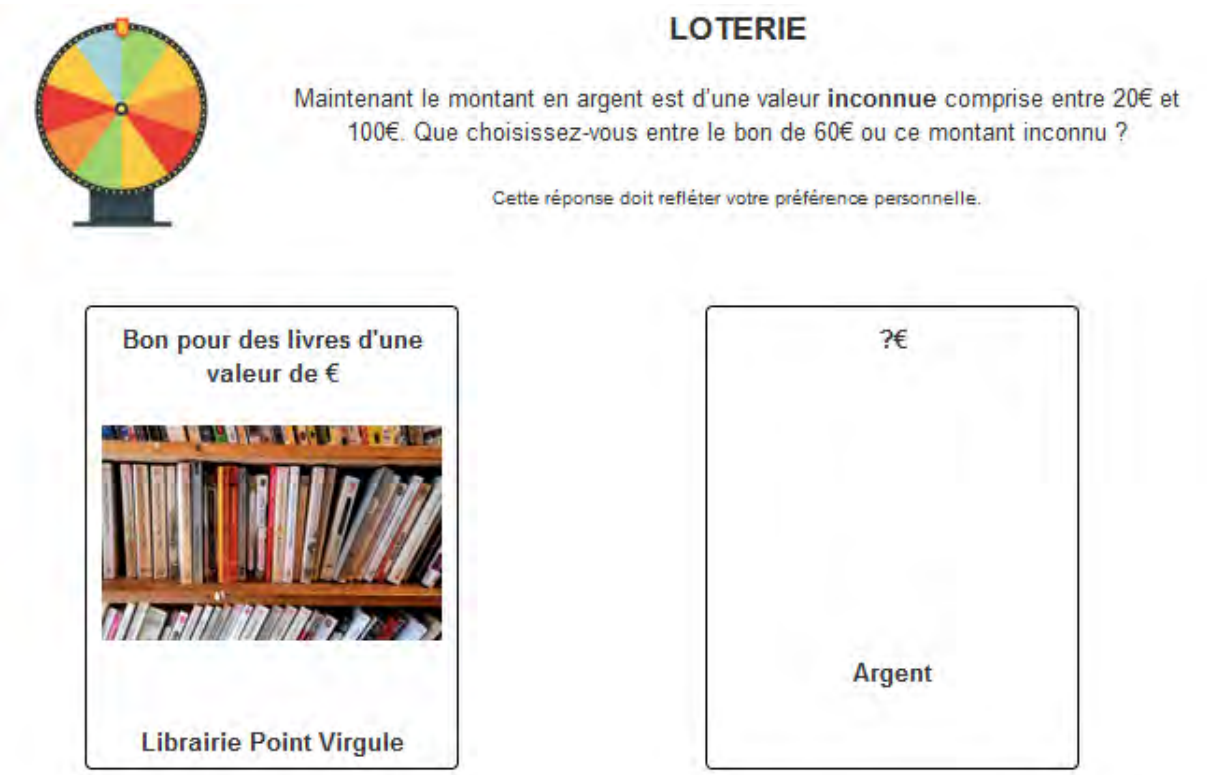
What happens next?

1. If she chooses to keep the envelop, the amount of money inside is shared equally between you and your wife.

2. If she chooses to take **the pencil case** [**the thermos**], you receive it together (at the end of the survey).

Based on this situation, you too have two options:

Figure B4: Module 1: individual WTP under uncertainty

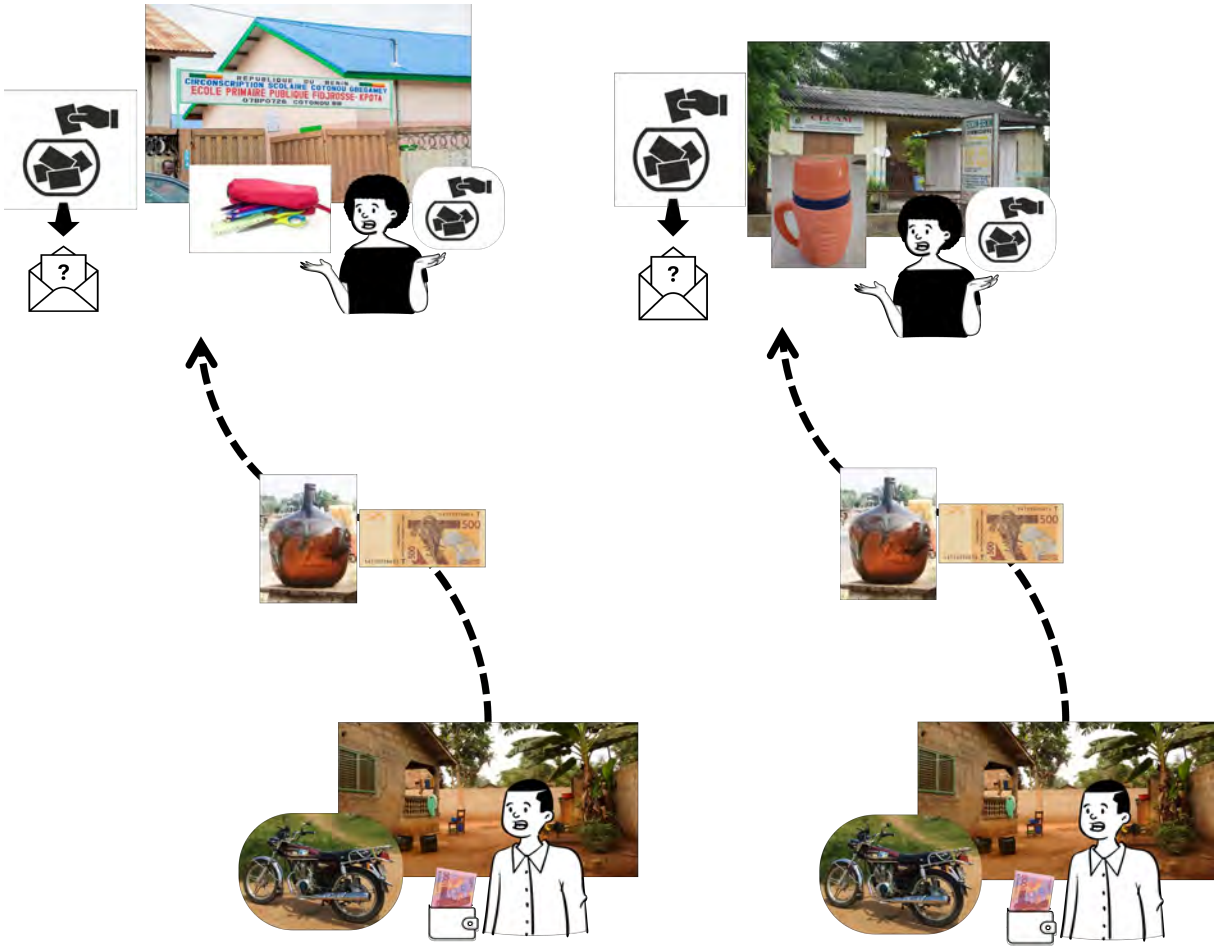


1. As before, you still have 1,000 FCFA in your wallet. But in this first option, you are joining your wife at **your children's school** [**the micro-credit agency**]. The trip costs you **X FCFA** in gas (both ways), leaving you with **1000-X FCFA** in you wallet. Once your reached your children's school [the micro-credit agency] however, you are able to draw the envelop yourself, learn the amount of money inside and choose yourself whether you prefer keeping the money inside or taking instead **the pencil case** [**the thermos**]. The chosen compensation is shared as introduced earlier by you and your wife. In addition, you receive the money left in your wallet (**1000-X FCFA**).

2. The second option is the following: As before, you still have 1,000 FCFA in your wallet. But now, you let your wife in charge of choosing between keeping the money in the envelop and **the pencil case** [**the thermos**]. The chosen compensation is shared as introduced earlier by you and your wife. As you did not travel to the place of the lottery, you keep in addition the 1000 FCFA you had in your wallet.

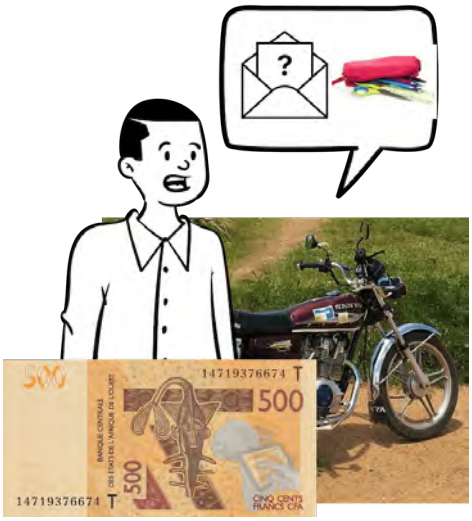
B.2.2 Game visual aids

Figure B5: Printed visual aids for the experiment



Pencil case game *Thermos game*

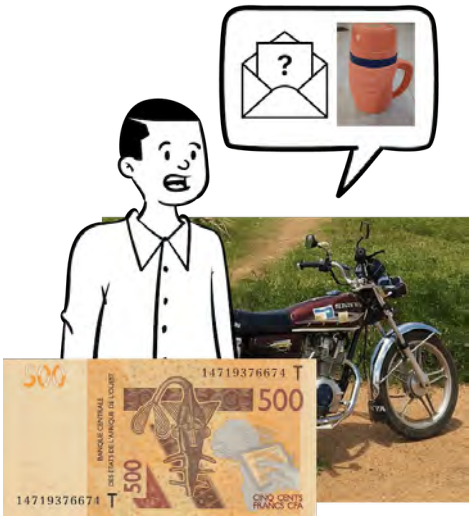
Figure B6: Choices: game for the complete pencil case



Option 1: pay 500 FCFA and make the decision

Option 2: delegate the decision to your wife

Figure B7: Choices: game for the thermos



Option 1: pay 500 FCFA and make the decision

Option 2: delegate the decision to your wife

B.3 Variable definitions

In this section we define all variables used in the empirical analysis.

B.3.1 Mapping between theoretical parameters and empirical variables

Table B1: Mapping between theoretical parameters and empirical variables

	Empirical measures	
	European experiment	**Beninese experiment**
Bias b	Absolute difference between own WTP and partner's WTP. WTP elicited on a €20–€100 list (step 10); switches mapped to the midpoint, with corner values at €15 and €105.	Absolute difference between own WTP and partner's WTP. WTP elicited on a 0–6000 FCFA list (step 250); switches mapped to the midpoint, with corner values at 0 and 6000 FCFA. Expressed in thousands of FCFA in regressions.
Price of information γ	Exogenous information cost of €5 or €10 to learn the lottery outcome.	Exogenous information cost of 250, 500 or 1000 FCFA to learn the lottery outcome (expressed in thousands of FCFA).
Cost of ignorance I	Maximum loss from choosing between the good and an unknown cash amount: distance between WTP and the relevant lottery bound, depending on the option chosen (good vs cash).	Not relevant since participating uninformed is not an option.
Paying for information	Choice between paying γ or not. The indicator *No info* equals 1 if the respondent did not pay for information.	See below.
Delegation decision in the game	Choice between participating or delegating the decision to the partner. The indicator *Delegates* equals 1 if the respondent chose to delegate.	Joint with information acquisition. The husband chooses between paying γ to decide by himself or delegating to his wife.
Payoffs u_i	For the active player, endowment plus outcome of the implemented decision (cash vs good based on WTP and realised draw), minus information cost if paid. If not delegating, own and partner decisions are implemented with probability 1/2 each and payoffs are computed as expected values. Passive player payoffs follow the same logic, always net of information costs. Each spouse receives half of the cash prize when the lottery is chosen.	For the husband, endowment plus outcome of the implemented decision (cash vs good based on WTP and realised draw), minus information cost if paid. If delegating, the wife preferences are implemented. If participating, the husband preferences are implemented. For the wife's payoff, a random individual compensation is added. Each spouse receives half of the cash prize when the lottery is chosen.

Table B2: Other empirical variables by context of study

	European experiment	**Beninese experiment**
Everyday delegation	*Delegation in life*: number of major budget decisions (vacation, car, large appliance) where the partner has more weight than the respondent. *Delegation vignette*: hypothetical choice to let the partner choose a wedding gift alone vs waiting to decide together.	*Delegate supervision*: indicator equal to 1 if the husband delegates supervision of workers on the pineapple plot to his wife (pineapple growers only).
Disagreement / conflict	*Index of disagreement*: average of three normalised items on partner's financial decisions, frequency of money-related disagreements, and dissatisfaction with partner's contribution to expenses. *Index of reproach*: average of two normalised items on making/receiving reproaches for the partner's spending.	*Index of disagreement*: average of two indicators capturing whether the woman would choose differently for her own and her children's health if deciding alone. *Index of free-riding*: average of spouses' answers on whether the partner reduces contributions when own income rises. *Index of conflict*: average of three binaries on economic punishment, threats and insults over the past 12 months.
Beninese context–specific controls		
Social norms	–	Breadwinner norm (shame if wife contributes more than husband) and male crop norm (appropriateness of women producing pineapple).
Empowerment and mobility	–	*Freedom of movement*: normalised index over three mobility situations. *Financial empowerment 1*: index on ability to buy furniture/land with own money. *Financial empowerment 2*: indicator equal to 1 if the woman alone decides on the use of her own income.

B.3.2 European experiment

Bias b The bias is the absolute value of the difference in WTP elicited through choice list. For each goods, respondents were asked whether they preferred receiving the good or a given amount of cash, for amounts ranging from 20 to 100 euros by step of 10. We define the WTP as the middle point of the range where the switch occurs: if a respondent prefers the good when the amount of cash is 20 but the cash if the amount is 30, we consider that her WTP is 25. Those who always prefer the cash are considered to have a WTP of 15 and those who always prefer the good a WTP of 105.

Cost of ignorance I The cost of ignorance is the maximum loss of choosing between the cash and the good, when the amount of cash is unknown. Respondents were asked whether they prefer an (unknown) lottery draw or the good. If they choose the good, the cost of ignorance is the difference between the upper bound of the lottery and their WTP. If they choose the cash, the cost of ignorance is the difference between their WTP and the lower bound of the lottery.

Price of information, γ The price of information is either 5 or 10 euros, to be paid to learn about the amount of cash drawn from the lottery.

Differences $(b-\gamma)$**,** $(I-\gamma)$ To avoid interactions between potentially negative numbers, we normalize these differences between 0 and 1 by adding the minimum value of the absolute difference and then dividing by the maximum.

No info This control variable used in Table 2 takes value 1 if the respondent did not pay for information.

Payoffs To compute the active player payoff in each round, we add the endowment and the payoff corresponding to the decision taken and substract the information cost, if it was paid. To compute payoff we use an actual draw of the lottery. If the player delegated the decision to her partner, we compare the draw to the partner WTP in order to determine whether the good or the cash was chosen. The corresponding payoff of the active player is then either half his WTP or half the cash amount. (We explained to players that they would receive half of the cash amount if the cash was chosen, to be consistent we therefore attribute half of the value of the good to each partner if the good was chosen.) If the player did not delegate the decision, her choice is implemented with a probability of 0.5 and that of her partner with a probability of 0.5. The payoff is then computed as the expected value of the outcome of these two possibilities (using, as expected above, the

actual draw of the lottery): it is the sum of half the payoff obtained if deciding and half the payoff obtained if the partner decides.

The payoff of the passive player is computed following the same logic, expect that, because she always participate to the decision, we always substract the cost of information. If the active player delegated the decision, we use the passive player WTP and the actual lottery draw to computer her payoff (half the cash if the draw is above the WTP and half the WTP otherwise). If the active player did not delegate, we proceed as described above to compute the expected payoff.

The difference between the player and the partner payoff is the simple difference between the two payoffs.

Good ordering This variable is a categorical variable (1, 2, 3) indicating the position at which a given good was presented to the participant across the three rounds of the delegation game, controlling for potential order effects.

Price ordering This variable is a categorical variable (1, 2) indicating the position at which a given price was presented to the participant within each round of the delegation game, controlling for potential anchoring effects.

Index of disagreement It is the average of three variables. The first corresponds to a question asking whether the respondent believes that her partner takes bad financial decisions. The answer could range from 0 "never" to 5 "always", we normalize the variable so that it ranges between 0 and 1. The second refers to whether the couple often disagree over money questions. Again the answer could range from 0 to 5 and we normalize the variable between 0 and 1. The third uses a question where respondents were asked to assess their partner contribution to household expenses (again on a scale from 0 to 5 and we rescale the answer between 0 and 1 where 1 correspond to the highest level of dissatisfaction). The index obtained by averaging the three variables ranges from 0 to 1.

Index of reproach Respondents were asked i) whether they often make reproaches to their partner for expenditure made by the partner and ii) whether their partner often makes reproaches to them for expenditures they made. Answers range between 1 "never" and 4 "often". We rescale both variables so that they range between 0 and 1 and take the average to obtain the index of reproach.

Delegation in life This variables counts the number of decision that the respondent delegates to her partner, out of 3 important decisions: the budget dedicated to vacation,

the budget dedicated to buying a new car, the household budget dedicated to buying a large household appliances. The question was "who decides over the budget dedicated to...", respondent chose an answer from a scale where the middle was "my partner and me equally" and the extreme "me alone" and "my partner alone". We consider that delegation occurs when the partner has more weight in the decision (about 3/4 of respondents chose the middle option, with about 12% declaring that they had more say and 12% declaring that the partner had more say).

Delegation vignette Imagine you find yourself in the following situation:
You and your partner have been invited to the wedding of François, a close mutual friend, this Sunday. François and his fiancée have provided a wedding registry available at BODECOR (a decoration store). You have a busy week ahead at work and are not sure when you will find the time to visit BODECOR. At the end of the day on Wednesday, your partner is on their way home and sends you a message saying they can pick up a gift from the list at the same time. You had agreed to buy some tableware but hadn't had time to discuss how much to spend. Unfortunately, you will be in a meeting when your partner arrives at the store and won't be able to talk to them. You reply:

- That they can go ahead and choose the gift on their own.
- That you would prefer they wait for you so you can choose together.

Table B3: Descriptive statistics - European experiment

	Mean	S.D.	Min.	Max.
Panel A: Game variables				
Bias b	15.46	16.22	0	90
Cost of ignorance I	27.54	21.06	0	75
Pay	0.24	0.43	0	1
Delegate	0.63	0.48	0	1
Not pay & Delegate	0.54	0.50	0	1
Pay & participate	0.15	0.36	0	1
Not pay & Participate	0.22	0.42	0	1
Payoffs				
Player payoff	50.75	11.88	18	73
Difference player-partner	4.05	8.60	-43	45
Observations	3984			
Panel B: Individual level variables				
Education				
Secondary	0.17	0.37	0	1
Bachelor	0.28	0.45	0	1
Post-graduate	0.55	0.50	0	1
Couple-life behavior				
Index of disagreement	0.24	0.16	0	1
Index of reproach	0.28	0.23	0	1
Delegation in life	0.36	0.66	0	3
Delegation vignette	0.81	0.39	0	1
Observations	664			
Panel C: Couple level variables				
Years together	8.13	7.42	2	40
Marital status				
Married	0.34	0.48	0	1
Legal cohabitation	0.29	0.45	0	1
De facto cohabitation	0.37	0.48	0	1
Observations	332			

B.3.3 Beninese experiment

Bias b The bias is the absolute value of the difference in WTP elicited through choice list. For each goods, respondent were asked whether they preferred receiving the good or a given amount of cash, for amounts ranging from 0 to 6000 FCFA by step of 250. We define the WTP as the middle point of the range where the switch occurs: if a respondent prefers the good when the amount of cash is 2000 but the cash if the amount is 3000, we consider that her WTP is 2500. Those who always prefer the cash are considered to have a WTP of 0 and those who always prefer the good a WTP of 6000. To ease the reading of the regression estimates, we express the bias and the price of information in 1000 of

FCFA.

Price of information, γ The price of information is 250, 500, or 1000 FCFA, to be paid to learn about the amount of cash drawn from the lottery. To ease the reading of the regression estimates, we express the bias and the price of information in 1000 of CFA.

Differences $(b - \gamma)$ To be consistent with the variable used in the European example, we normalize the difference between 0 and 1 by adding the minimum value of the absolute difference and then dividing by the maximum.

Norms The breadwinner norm takes value 1 if the wife believes that a majority of farming men in her community would be ashamed if their wife would contribute more than them to the household expenses. More precisely, we asked how many men, out of 5, would find it shameful, the breadwinner norm takes value 1 if she answered 3 or more. The question corresponding to the male crop norm was "do you agree with the following statement? : *people in my community believe that pineapple production is inappropriate for a woman*". The possible answers were "I agree" (male crop norm = 0) "I neither agree nor disagree" (male crop norm = 0.5) "I disagree" (male crop norm = 1).

Payoffs In this case the active player is always the husband. To compute his payoff in each round, we add the endowment and the payoff corresponding to the decision taken and subtract the information cost, if it was paid. To compute payoff we use an actual draw of the lottery. If the husband delegated the decision to his wife, we compare the draw to the wife WTP in order to determine whether the good or the cash was chosen. The corresponding payoff of the husband is then either half his WTP or half the cash amount . (We explained to players that they would receive half of the cash amount if the cash was chosen, to be consistent we therefore attribute half of the value of the good to each partner if the good was chosen.) If the husband did not delegate the decision, his choice is implemented using, as described above, the actual draw of the lottery.

The payoff of the wife is computed following the same logic, expect that, because she always participates to the decision, we always subtract the cost of information. If the husband delegated the decision, we use the wife player WTP and the actual lottery draw to computer her payoff (half the cash if the draw is above the WTP and half the WTP otherwise). If the husband did not delegate, we implement his decision as described above.

Index of disagreement For two important decisions, own health and health of children, women were asked who was responsible for these decisions in their household. If

their answer reveal that they were not responsible, or decided together with somebody else, we asked them whether they would typically take different decisions if they could choose alone. If the answer is positive, we consider that there is disagreement. The index is built as the average of the two disagreement variables (for own health and children health).

Index of free-riding Respondents were asked whether, when they experience an increase in own income, their spouse tends to reduce their contribution to household expenses. The index of free-riding is the average of the answer given by husband and wife to this question.

Index of conflict Women answered a self-administered survey about their experience of conflict in their household. They were asked in particular whether their husband punished them economically, threatened them or insulted and humiliated them over the past 12 months. The index of conflict is the average of the binary answers to these three questions (where 1= yes).

Delegate supervision The subsample of pineapple growers were asked whether they delegate the control and supervision of workers on their pineapple fields to their wife. If the answer is positive, the variable Delegate supervision takes value 1 (defined for 230 couples).

Freedom of movement Women were asked about their freedom of movement in three instances: if they wish to visit their parents, if they wish to go somewhere in the village for economic activities and if they wish to go to the nearby capital city for economic activities. If they can generally leave the household after simply informing their husband, the corresponding variable takes value 3, if the husband sometimes refuses, it takes the value 2, if he generally refuses, it takes the value 1. We rescale variables between 0 and 1 and take the average to obtain the indicator of freedom of movement.

Financial empowerment 1 Women were asked whether they can use their own money to buy furniture or land (provided they have the funds). If they can generally do so after simply informing their husband, the corresponding variable takes value 3, if the husband may refuse, it takes the value 2, if he is expected to refuse, it takes the value 1. We rescale variables between 0 and 1 and take the average to obtain the indicator.

Financial empowerment 2 We asked women who takes decisions regarding the use of their own money. If their answered that they decide on their own, the indicator takes

value 1 (and 0 otherwise).

Table B4: Descriptive statistics - Beninese experiment

	Mean	S.D.	Min.	Max.
Panel A: Game variables				
WTP Husband (FCFA)	4115.15	2226.19	0	6000
WTP Wife (FCFA)	4014.00	2168.37	0	6000
Bias b	1.64	1.88	0	6
Delegate	0.71	0.46	0	1
Payoffs				
Payoff Husband	3.16	0.94	0	4
Difference husband-wife	0.43	0.91	-3	3
Observations	1446			
Panel B: Individual level variables				
Husband				
Age	48.08	10.62	23	78
Any education	0.76	0.43	0	1
Wife				
Age	41.40	9.80	23	75
Any education	0.42	0.49	0	1
Polygamous	0.39	0.49	0	1
Owns a television	0.41	0.49	0	1
Number of children	3.44	2.39	0	21
Index of disagreement	0.27	0.38	0	1
Index of free-riding	0.40	0.39	0	1
Index of conflict	0.26	0.36	0	1
Delegate supervision	0.74	0.44	0	1
Empowerment				
Freedom movement	0.65	0.14	0	1
Financial empowerment 1	0.69	0.15	0	1
Financial empowerment 2	0.49	0.50	0	1
Norms				
Breadwinner norm	0.74	0.44	0	1
Male crop norm	0.46	0.41	0	1
Observations	482			

Notes: Unit of observation is individual, couple or individual × good. Except WTPs, all monetary values in thousands of FCFA.