The Power of Persuasion: Causal Effects of Household Communication on Women's Employment*

Namrata Kala† and Madeline McKelway‡

June 13, 2025

Abstract

Can women influence household decisions through effective communication when they lack decision rights? We conduct a field experiment in India to test whether a communication training for married women impacts female labor supply, an important decision households make and a frequent source of intra-household disagreement. The treatment shifted women's communication styles towards the techniques taught in the training. We find positive effects on labor supply and earnings but, consistent with theory, only for women who were more interested than their husbands in the women working. These effects last at least one year post-treatment and represent a 53% increase in earnings over this period. Mechanisms analyses suggest the labor supply effects come from women changing their husbands' preferences rather than shifts in bargaining power. A back-of-the-envelope calculation estimates this treatment to be highly cost-effective at raising female employment relative to public vocational training.

*We thank Siwan Anderson, Abhijit Banerjee, Arun Chandrasekhar, Rahul Deb, Esther Duflo, Eric Edmonds, Erica Field, Robert Garlick, Rachel Heath, Matt Lowe, Nathan Nunn, Claudia Olivetti, Frank Schilbach, Duncan Thomas, Alessandra Voena, and numerous seminar participants for advice on this paper. Iti Bhargava, Pryce Davies, Xiang Li, Bhawna Mangla, Kanishka Nath, and Nikita Singh provided outstanding research assistance and support. We are grateful for our partnerships with WorldBeing and Obeetee, without which this project would not have been possible. Project funding was generously provided by JPAL's Gender and Economic Agency Initiative and by the Wellspring Philanthropic Fund. This project has human subjects approval from MIT and IFMR, with Dartmouth ceding authority to MIT. The experiment was pre-registered in the AEA RCT Registry (AEARCTR-0010192).

†MIT Sloan School of Management, kala@mit.edu

‡Dartmouth Economics Department, madeline.d.mckelway@dartmouth.edu

1 Introduction

In many economic settings, agents lack decision rights but provide input – these include most sender-receiver models, along with applied contexts such as bosses and subordinates, salespeople and buyers, or financial advisers and clients. Household decision-making in conservative, developing settings can also be seen through this lens. Patriarchal gender norms coupled with gender inequities in earnings potential, asset ownership, and more (Anderson, 2024; Jayachandran, 2015, 2021; United Nations Statistics Division, 2015; World Bank, 2012) could grant husbands decision rights and limit wives' influence to providing input. Indeed, only half of women in our sample in rural India report being one of the household members with final say over various decisions, but virtually all of them (90%) report giving input.

In standard models of such settings, agents providing input communicate optimally; senders in the usual sender-receiver models who have credible signals that would tilt outcomes in their favor always send them, while benchmark models of the household leave out communication frictions entirely, assuming symmetric information. At the other end of the spectrum, popular culture is rife with tips for women on how to persuade their husbands,[1], and a vast literature across psychology, management, and experimental economics discusses the importance of effective communication (Antonakis et al., 2022; Coffman and Niehaus, 2020; Lazarus, 1973; Peneva and Mavrodiev, 2013; Tannen, 1995).

This paper studies the role of communication skills in one of the most consequential and policy-relevant decisions households make: women's labor supply. There are large gender gaps in labor market outcomes globally, which are concerning in light of evidence that misallocation of female talent constrains economic growth (Agte et al., 2024; Ashraf et al., 2022*b*; Chiplunkar and Goldberg, 2021; Chiplunkar and Kleineberg, 2024; Hsieh et al., 2019). India, where we work, has some of the widest gender gaps in the world, with only 0.43 women participating in the labor force for every man who participates and women earning just 18% of the country's labor income (Chancel et al., 2022; World Bank, 2024).[2] Husband opposition is widely discussed as a constraint to female employment in the country; men in India tend to be less supportive of female employment than women, and husbands have a great deal of control over their wives' labor supply (Bernhardt et al., 2018; Bursztyn et al., 2024; Field et al., 2021; Lowe and McKelway, 2025). Consistent with this, Fletcher et al. (2018) estimate that over 30% of women in India who are not in the labor force would like to work. Com-

[1]Figure A.1 provides just a few examples: an article from Good Housekeeping instructing women on how to turn a no from their husbands into a yes, tips from Woman's Day on persuading others, and articles from the Ladies' Home Journal on the persuasive power of women's eye contact and on a language of intimate persuasion between spouses termed "husbandese."

[2]The corresponding statistics worldwide are 0.70 and 35%.

munication skills could enable women to persuade their husbands in labor supply decisions, boosting female employment and earnings.

We conducted a field experiment with 1,540 married women, in partnership with one of India's largest carpet manufacturers as it introduced new female employment opportunities. These opportunities entail four months of paid training in carpet weaving, followed by weaving employment for any women who complete training. The training pay is substantial, close to what women ultimately earn as weavers. Both training and employment are full-time and occur in all-female weaving centers located in women's villages. Our sample includes married women, aged 18-40, who would be eligible for this program.

Female labor supply is the topic spouses in our sample most often hold different opinions about. This disagreement almost always takes the form of wives being more interested than husbands in the wives working; 53% of couples in our sample have different levels of interest in the wives working, and in 81% of those couples, the wife is more interested.

We randomized whether women were given a communication training before the firm's program began. This training was designed by WorldBeing, an organization that provides evidence-based psychosocial programs in disadvantaged communities worldwide. The training was in assertive communication, which means expressing your own view while still being respectful to others. Note that this definition of assertive, which is used in the communication literature and which we adopt throughout the paper, is different from how assertive is often used colloquially to refer to pushy or off-putting communication. WorldBeing combined and adapted existing assertive communication techniques to develop a training relevant for women in our setting. The key technique taught was a *see-feel-want* statement (WorldBeing, 2022); the curriculum trained women when facing an interpersonal disagreement to first describe objectively how they *see* the situation, then describe the emotions it is making them *feel*, and finally to state what they *want* to happen. The training was delivered in six, one-hour sessions held with groups of women over a month. Content was conveyed in a variety of formats, including instruction, storytelling, and group activities. Examples in the curriculum focused on communication between husbands and wives, but covered a range of different topics spouses might disagree about and was not focused on employment in particular. To control for the effects of attending sessions unrelated to communication, we use an active control group; we held the same sort of meetings with women in the control group, but in these meetings, women played games and took surveys.

The firm's program began three weeks after the intervention ended. We observe, in administrative data, whether women applied for the program, whether they attended in each of its first 10 months, and their program earnings in each of these months. We also administered surveys with women at baseline, and at five weeks and six months post-treatment.

We estimate treatment effects overall and by a pre-specified dimension of heterogeneity: an indicator for women reporting at baseline that they were more interested than their husbands in the women working outside the home. All women may communicate more effectively with their husbands as a result of the treatment, but theory would predict this should only raise labor supply in the woman-more-interested subgroup.

We begin with "first stage" effects on women's reported communication styles at five weeks. Surveyors told women stories about a husband and wife who disagreed about whether the wife should do something she wanted to do, and asked women what they would say to their husbands if they were in this situation. This provides rich data on not only whether communication would occur, but also what form it would take. We find the treatment raised women's use of assertive responses by 0.172 standard deviations, driven by effects on responses that involve summarizing the problem and providing a rationale for one's preferred outcome. These effects do not vary by spousal disagreement about female employment. We also see no effects on negotiation-style communication, whereby women propose a compromise (Ashraf et al., 2020), or on other dimensions of psychosocial empowerment, namely self-efficacy and gender attitudes.

Turning to labor supply, we find the overall treatment effect on application for the firm's program is positive but small and not statistically significant; this, however, masks heterogeneity by spousal disagreement. The treatment effect on women who were more interested than their husbands was significantly larger, at 6.0 percentage points (p.p.), a 35% increase beyond the application rate among control women in this subgroup. The effect in the rest of the sample was -2.5 p.p. and not significant.

These patterns translated into differences in actual program earnings, observed in the firm's administrative records. We code earnings as zero for non-participants, and note that participants' earnings are a function of their daily participation and, to a lesser extent, their output on the job; thus, earnings are a comprehensive measure of participation at both the extensive and intensive margins. In the woman-more-interested subgroup, the treatment increased total earnings over the 10 months we observe them by 53%. Turning to earnings by month, we find positive effects in this subgroup in the program's first four months (when training occurred). These effects dissipated in months five through eight, which coincided with wedding and agricultural seasons that demand women's time, but re-emerged in months nine and ten. The month-ten effect in our subgroup of interest represents a 124% increase. This persistence is notable; interventions previously evaluated in this setting produced short-run effects on women's employment that faded by one year (McKelway, 2025*b*,*a*).

These effects are not due to women shifting their labor supply to the firm and away from another sector, but rather reflect an increase in overall employment rates. At the six-

month endline, the treatment increased the fraction of women in the woman-more-interested subgroup who reported *any* work for income in the previous three months.

We explore mechanisms in two parts. We first ask whether a correlate of spousal disagreement about employment, not the disagreement itself, is driving our heterogeneous effects. Several results suggest this is not the case. First, as mentioned above, learning from the intervention does not differ by subgroup. Second, we control for unobserved characteristics of women who report facing opposition from their husbands by using reported opposition in other decisions. Reported opposition is strongly correlated across decisions, but the pattern of heterogeneity in the labor supply effects remains when we control for an index of husband opposition in other decisions and its interaction with treatment. Third, the heterogeneity is robust to controlling in the same way for husbands' and wives' independent interest in women's employment. This suggests our heterogeneity is not just a result of women being interested or husbands disinterested, but rather is driven by disagreement in interest, precisely when communication skills should matter. Finally, we use Lasso to select baseline variables that predict being in our affected subgroup. The pattern of heterogeneity is again robust to including these controls and their interactions with treatment.

We then investigate how treated women in the affected subgroup used communication to shift household decisions about their labor supply.[3] In theory, a household decision could change if either spouse's utility changed or if the weighting of the two utilities changed. We test for effects on these three decision components in the woman-more-interested subgroup using data from the five-week endline.[4] We see no effect on an index of women's final say over various household decisions, or on how predictive wives' versus husbands' preferences are of women's actual labor market outcomes, both of which suggest effects on bargaining power cannot explain our results. We also see no effect on women's own interest in working. However, treated women report greater support for their employment from their husbands and are less likely to report being more interested in employment than their husbands at endline. Finally, we discuss whether women changed their husbands' preferences by providing information that raised the husbands' own expected utility from the women's work, by informing husbands of the women's interest in work, or by eliciting empathy from the husbands. We find evidence for the first of these three. The mechanisms analyses thus suggest that effects on labor supply stem from women persuading their husbands to let them work.

[3]In principle, greater earnings and employment could be explained by better communication in the workplace rather than the household. However, this story would predict positive effects in both subgroups and thus cannot explain our results. Hence we focus on communication in the household.

[4]We focus on the five-week rather than six-month endline because we wish to isolate changes in household decision-making that could have led to the effects on labor supply, but data from a longer-term endline is more likely to also capture effects of labor supply or other outcomes on decision-making.

In sum, we find that a communication training generates large, persistent effects on female labor supply. Our results imply women face frictions to communicating optimally in the status quo, contrary to standard models which assume optimal communication. The fact that women do not use the more effective "communication technology" absent intervention is reminiscent of findings from other domains where agents seemingly fail to adopt welfare-enhancing practices available to them (e.g. Bloom et al. (2012); Heller et al. (2016)). Our findings suggest an approach policymakers could take to improve women's agency even when they lack decision rights; in settings with entrenched gender norms and inequalities, improving women's communication skills may be more culturally acceptable and effective than attempts to raise their bargaining power. Finally, our results have important implications for labor-market policy. They suggest demand-side interventions to expand jobs for women may be impeded by supply-side constraints operating within the household, but these constraints can be relaxed with communication training. Our back-of-the-envelope estimate is that the cost of getting one woman employed from our intervention was less than 12% that of government-funded vocational training. Thus, communication training provides a highly cost-effective way to increase women's employment.

This paper contributes to three bodies of literature. First is the literature on female labor supply (for summaries, see Heath and Jayachandran (2018), Heath et al. (2024), Dahl and Løken (2024), and Olivetti et al. (2024)). Previous work has evaluated the impacts of various psychosocial and soft skills trainings on female employment outcomes, with mixed results (Ashraf et al., 2022*a*; Adhvaryu et al., 2023; Barrera-Osorio et al., 2023; Groh et al., 2016; McKelway, 2025*b*; Orkin et al., 2024). We are the first to evaluate a communication training, which we show produces large, persistent effects on labor supply at low cost. We also provide evidence on the role of husband opposition in constraining female employment. While this constraint is widely discussed, the existing causal evidence is indirect, with studies documenting changes in female labor supply outcomes from changing husbands' preferences (Bursztyn et al., 2020; McKelway, 2025*b*,*a*), from reminding female job seekers of discussions with their families (Subramanian, 2024), and from interventions likely to have raised women's control in the household (Field et al., 2021; Heath and Tan, 2020). Our results provide more direct evidence of this constraint and suggest a novel way to overcome it.

Second is the literature on intra-household decision-making. Benchmark models in this literature assume decisions are efficient but do not take a stance on the decision process, including the nature of spousal communication (Browning and Chiappori, 1998; Chiappori, 1988, 1992; Manser and Brown, 1980; McElroy and Horney, 1981). More recent work has documented the existence of communication frictions within the household (Ashraf et al., 2023; Conlon et al., 2021; Björkman Nyqvist and Jayachandran, 2017); we show that a short-term

training can mitigate such frictions and have long-term impacts on womens' labor supply. One related paper is Ashraf et al. (2020), who find that a negotiation training for adolescent girls in Zambia improved their educational outcomes. The skills developed in that training are distinct from those developed by our training – the negotiation curriculum trained girls to propose mutually beneficial compromises, whereas our curriculum helped women convey their own perspectives more effectively[5] – and we show that our results are consistent with persuasion rather than negotiation. Another related paper is Björkman Nyqvist et al. (2024), who study effects of a communication training for mothers on child health, but find mixed results. This intervention was less didactic and more participant-generated than ours; it asked women to rehearse communicating certain ideas to their husbands and prompted women to discuss intra-household communication issues with one another, whereas our training taught assertive communication techniques from the psychology literature that had been adapted to our setting. We also build on Björkman Nyqvist et al. (2024) by measuring more detailed aspects of household communication, which enables us to speak to underlying mechanisms. A final contribution relative to both Ashraf et al. (2020) and Björkman Nyqvist et al. (2024) is considering effects on female labor supply, a key economic outcome that is targeted by numerous policies and has proven difficult to move.

Lastly, we contribute to literature on effective communication. This work tends to be done in wealthy countries or in tightly-controlled lab environments (Antonakis et al., 2022; Coffman and Niehaus, 2020; Lazarus, 1973; Peneva and Mavrodiev, 2013; Tannen, 1995).[6] There are many reasons why the returns to effective communication may be different in real-world settings, such as higher stakes or pre-existing relationships. Likewise, differences in norms and education levels mean effective communication may have different effects in developing countries. Our results suggest that effective communication techniques can be trained through a short-term field intervention in a developing country, and that the returns to doing so can be large in a population of women who lack decision rights but can sway household outcomes through persuasion.

[5] In the context of a household decision about female labor supply, our intervention might have trained women to say something like *"I'm feeling worried about how we'll pay for our son's tutoring. I think I should take this job – the earnings would more than cover tutoring, and housework requires less time now that the kids are older."* The negotiation training, in contrast, would have prompted statements like *"If you let me take this job, I'll cover our son's tutoring with my earnings."*

[6] A related literature, summarized by DellaVigna and Gentzkow (2010), studies persuasion directed at people with whom the communicator does not have a personal relationship, e.g. consumers, voters, donors, and investors. This work is also largely done in developed settings.

2 Setting

Our field experiment was set in rural Uttar Pradesh, India. We outline five stylized facts about this setting which motivate our experiment. First, it is a setting with large gender inequalities in labor market outcomes. In our control group, 0.35 wives work for every husband who does, and the amount of money husbands expect they could earn in a month from working is 3.09 times what wives expect they could earn. Just 32% of women in our sample had worked off their households' farms in the three months prior to our baseline.

Second, gender inequities and norms result in women having limited decision rights within their households. Less than 10% of women in our sample say they alone have final say over various household decisions, and only around 50% report being one of the household members with final say (Figure 1). Jayachandran (2015) finds the percent of women who have any final say tends to increase with development, and 50% is on par with the levels she estimates for the poorest countries in the world.

Women are nevertheless active in the decision-making process. While only half of women in our sample report having final say, around 90% report giving input (Figure 1). They also report taking actions to sway their husbands' opinions. At baseline, we asked women to imagine a situation in which they wanted one thing but their husband wanted another. We then asked if they would take any of several approaches to try to change their husbands' mind. Virtually all of them – 95% – would try, and they would typically do so through some form of communication, with the most common approaches being "explain why the decision means so much" and "use an especially nice demeanor" (Figure A.2).

Our fourth stylized fact is that women's labor supply is the most common topic couples disagree about. At endline, surveyors asked women the following question: *Husbands and wives often have different opinions about what choices their households should make ... For example, they might have different opinions on how money should be spent, on whether the wife can go out for various reasons, or on decisions related to their children. In what sorts of decisions do you and your husband often have different opinions?* Surveyors were instructed not to read answer options aloud. The most common response in the control group, provided nearly 25% of the time, was whether the respondent could work outside the home (Figure 2). The second most common response, provided by nearly the same number of women, was that the couple did not have disagreements.

Finally, disagreement about wives' labor supply tends to take the form of wives being more interested than husbands in the wives working. At endline, the average woman in the control group reported being somewhat interested (3 on a 1-4 scale) in working, while her husband reported being somewhat uninterested (2 on a 1-4 scale) in her working. This gap

in interest is much larger than for other decisions spouses often disagree about: whether the wife can visit her natal village, go to the market, or get a new saree (Figure 3).

3 Experimental Design

3.1 Partner Firm

We partnered with a firm that was introducing new jobs for women in our setting. The firm, Obeetee, is one of India's largest carpet manufacturers. As part of its Corporate Social Responsibility (CSR) initiatives and to alleviate shortages of male carpet weavers, the firm developed a program to train and employ women as weavers. The program begins with four months of paid training in weaving, followed by the option of long-term weaving employment for any women who complete training. Training pay is substantial, close to what women ultimately earn as weavers. Program earnings are a function of women's daily attendance and, to a lesser extent, their output on the job. Both training and employment are full-time, though in practice absenteeism is high, and both phases occur in all-female weaving centers located in women's villages.

We partnered with Obeetee as it expanded this program in seven villages. It constructed new female weaving centers in all villages, each with capacity for 20 weavers. These centers opened for the program's training phase on December 1, 2022 (see Figure A.3 for a study timeline). The long-term weaving jobs began four months later, on April 1, 2023.[7]

3.2 Sample Recruitment

Our sample includes 1,540 married women who would be eligible for our partner firm's employment program. We worked with the new female loom centers to identify catchment areas for each center. These were village neighborhoods where the loom centers recommended recruiting women for the program. The areas typically included all neighborhoods in walking distance of the loom center where lower caste (i.e. scheduled or other backwards castes) lived as male weavers generally come from those castes.

In September 2022, surveyors went door-to-door in the seven catchment areas to recruit women for the study. Surveyors introduced themselves as part of a team from J-PAL collaborating with Obeetee's CSR team to understand women's daily lives and offer initiatives to promote their wellbeing. Surveyors explained that the J-PAL team would be surveying

[7]We have conducted prior studies with Obeetee on its female weaving program (Lowe and McKelway, 2025; McKelway, 2022, 2025*b*,*a*), but the present experiment was conducted in a separate sample and separate villages from this prior work.

women and their families, and also hosting meetings with groups of women in which women would discuss aspects of village life or things to facilitate their household lives, in particular, how to best communicate with other household members. Surveyors also explained that the J-PAL team would be assessing women's interest in Obeetee's female weaving program but that the program was separate from the J-PAL team's activities, such that women could participate in the study but not in the female weaving program.

In the door-to-door visits, surveyors identified eligible women in each household and invited them to participate in the study. To be eligible, women needed to be married, aged 18-40, and not be the mother or mother-in-law of another eligible woman in their household.[8] We also required women be present when surveyors visited their homes to consent for the study, though surveyors re-visited homes of unavailable, eligible women at a later time to seek consent. 98% of eligible women consented, giving a total sample of 1,540 women from 1,416 households. A baseline survey was taken with all 1,540 women immediately after they consented (see Table A.1 for baseline summary statistics).

3.3 Randomization

We randomized women to receive the communication training or to an active control group in two steps. We first assigned women to meeting groups, the unit at which the treatment would be delivered. We formed 240 groups of around 6-7 women from the same neighborhood. Group assignment was at the household level. We used stratification within neighborhood to assign multi-woman households to different groups and to generate age variation within the groups.[9] The second step of randomization assigned half of the meeting groups to treatment and half to control. We stratified this randomization by village and, within village, by neighborhood.[10]

The randomization achieved balance on baseline characteristics (joint F-test $p = 0.712$, Table A.1). We also see balance within each of the two subgroups our main heterogeneity analyses consider: wives who were more interested than their husbands in the wives' employment at baseline, and those who were not (joint F-test $p = 0.915$ and 0.294 respectively,

[8]The 18-40 age range is the age range Obeetee targets for its program. We did not allow mothers/mothers-in-law of other eligible women to participate because their presence in the intervention meetings might have made their daughters/daughters-in-law reluctant to speak about household issues.

[9]Specifically, we stratified by a categorical variable that denoted whether a household had multiple women, and then among the single-woman households, whether the woman was above or below median age in her neighborhood. The purpose of the multi-woman household stratification was to keep group size consistent, while we stratified by age with the idea that women of different ages would bring different perspectives on household communication to the group discussions.

[10]Any neighborhoods that had enough women to form only one meeting group were pooled with other small neighborhoods in their villages to form the neighborhood stratification variable.

Table A.1).

3.4 Intervention Delivery

The intervention was delivered over four weeks in October and November 2022 in a series of six, one-hour meetings with the assigned meeting groups. Meetings were held in private in various locations within participants' neighborhoods, such as homes or schools. Women were given small gifts for attending each meeting. In these meetings, the groups assigned treatment received the training in assertive communication, while the groups assigned control played games and took group surveys. Both the communication curriculum and control group meetings are described in detail below.

All meetings, treatment and control, were facilitated by 40 female members of our J-PAL field team. Facilitators were randomly assigned to facilitate treatment or control meetings, and randomly assigned particular meeting groups. An additional 40 members of the field team were assigned to support each facilitator with the logistics of hosting the group meetings, such as gathering the participants for the meeting, playing with their children during the meeting, or talking with passersby so they did not interrupt the meetings.

Compliance was high and balanced by treatment. 90% of women attended at least one meeting and the average woman attended 4.60 meetings. Compliance does not differ by treatment in the full sample or in either of our two main subgroups of interest (Table A.2).

3.4.1 Assertive Communication Curriculum

The communication training focused on one particular form of effective communication: assertive communication. Communicating assertively means expressing your point of view clearly while still being respectful to others. The concept of assertive communication was initially proposed by the psychologist Arnold Lazarus (1973), and has been the focus of much research and practice in psychology since (see Peneva and Mavrodiev (2013) for a summary). This work has developed specific strategies for communicating assertively, and documented the importance of assertive communication in helping individuals reach their objectives in joint decisions while maintaining good relationships with the people they communicate with. Note that the meaning of assertive communication in academic psychology, which is the definition we adopt in this paper, differs from the colloquial use; colloquially, assertiveness can mean pushy or off-putting behavior, whereas assertiveness in the literature means being clear about your wants and needs while still being respectful.

We evaluate an assertive communication training designed by WorldBeing for our study (WorldBeing, 2022). WorldBeing is an organization that offers evidence-based, psychosocial

programs in India and other developing countries. Randomized evaluations of their programs have found them to be effective in improving psychological, health, and economic outcomes (Kaur, 2024; Leventhal et al., 2015, 2016; McKelway, 2025*b*).

WorldBeing combined and evolved existing assertive communication techniques to develop a training relevant for our sample. Drawing from the "I-message" technique (Gordon, 2008) and DESC model (King et al., 2008), WorldBeing developed the *see-feel-want* statement (WorldBeing, 2022). This is a technique for explaining your perspective to someone who may disagree with you that involves first describing objectively how you *see* the situation, then describing the emotions the situation is making you *feel*, and finally stating what you *want* to happen. A key piece of the feel step is to use the pronoun "I" rather than "you" to explain your feelings without sounding accusatory, as in the I-message technique (Gordon, 2008). For example, a woman who wants to work might say to her husband: *"We've discussed how much our son could benefit from tutoring, but it's quite expensive. I'm feeling worried and anxious about how we would pay for it. I think I should start working. I could earn enough to pay for tutoring in just one week of work a month, and now that the kids are older my housework requires less time."* In our population with low education, WorldBeing found the see-feel-want statement to be a useful and accessible heuristic which also lent itself to hand motions and visuals (Figure A.4). The see-feel-want statement consolidates a number of components of assertive communication that are consistent across models: the importance of clearly communicating your perspective (see), the importance of communicating your emotions (feel), and the centrality of communicating what you want and need (want). As noted in Section 1, this type of communication is distinct from negotiation (Ashraf et al., 2020), which involves proposing mutually beneficial trades, and we show that the treatment effects are consistent with an increase in assertive communication but not negotiation.[11]

The curriculum was designed to be delivered over six, one-hour sessions with groups of women. The see-feel-want statement was taught in the final three sessions, while the first three built prerequisite skills to help women formulate see-feel-want statements and deliver them effectively. The first session provided an introduction to the curriculum and developed listening skills. The second developed women's abilities to recognize and manage emotions, giving them tools to express their feelings and to process their emotions before discussing difficult topics. The third session asked women to reflect on what they wanted in life so that they could clearly communicate their wants to others. The fourth session introduced three communication styles to women: passive, aggressive, and assertive. The curriculum explained why assertive communication was the most effective of the three and introduced

[11] A negotiation-style statement used by a wife who wants to work might go as follows: *"If you let me take this job, I'll cover our son's tutoring with my earnings."*

see-feel-want statements as a way to communicate assertively. Women practiced using see-feel-want statements in session five. The final session asked women to anticipate challenges they might encounter when communicating assertively and taught them a problem-solving strategy to overcome such obstacles.

Concepts were taught in a variety of formats, including instruction, visuals, group activities, discussion, and story-telling. Four stories were told across the six sessions, each about a husband and a wife having different opinions about a particular decision: whether the wife should get a new saree, where to send children to school, whether the wife should work for NREGA, and whether the wife should visit the market. The curriculum therefore focused on communication between husbands and wives, but many different decisions households might communicate about were discussed; the curriculum would not have come across as promoting women's employment or any other particular behavior.

Facilitators were trained by WorldBeing to deliver the intervention. The training included both general facilitation skills and training on delivering this particular intervention.

3.4.2 Active Control Group Meetings

In the control group, meetings involved playing games and taking group surveys. The surveys covered a variety of topics related to day-to-day life in women's villages, such as entertainment, schooling, and NREGA.[12] The questions on the surveys were purely descriptive and avoided sensitive issues around gender, norms, and household decision-making. For instance, the questions asked about NREGA included how many women and men work for NREGA, what the NREGA work involves, and where it occurs. The games were simple and familiar games, but ones women enjoyed playing. The sixth session's game, for example, involved passing a parcel around the circle while a song played, with the woman holding the parcel when the song stopped having to sing a song for the group.

Control-group facilitators received training in general facilitation skills from WorldBeing, alongside the treatment facilitators. The two groups of facilitators split up after this, with the control facilitators being trained on the control curriculum by our J-PAL team while the treatment facilitators were trained by WorldBeing on the communication curriculum.

The goal of using an active control group was to hold fixed effects of attending meetings unrelated to assertive communication, such as spending time outside of the home, meeting other women, or exposure to the research team.

[12]The full list of topics was: entertainment, health, sarees, schooling, voting, NREGA, sanitation, vet care, local market, and cell phone ownership.

3.5 Recruitment, Application, and Start of Firm's Program

One week after the intervention ended, surveyors visited women individually to deliver information about Obeetee's program. The process for delivering this information and the information itself was identical across the treatment and control groups. Surveyors were re-assigned villages following the intervention so that women were not informed about the program by their meeting group facilitators.

Surveyors explained that assessing interest in Obeetee's program was one component of the J-PAL team's program and that, with Obeetee's permission, the J-PAL team would administer application for the program to assess interest. Surveyors then provided information about the program, both reading from a script and showing a video in which Obeetee administrators and program participants discussed the program. Finally, surveyors explained how women could apply for the program and gave women application tickets with their unique study IDs which they could present at the time of application to expedite the process. Any family members around when surveyors visited were free to hear the information as well.

Program information was successfully delivered to 88.2% of women in the control group. The treatment increased this slightly, particularly in the woman-more-interested subgroup where it raised information delivery by 4.8 p.p. ($p = 0.029$, Table A.2). Successful information delivery can itself be seen as a revealed preference outcome related to female labor supply – it means women chose to take the time to hear about the program, even when this choice would be observable to their families – and thus this effect is an early indication of effects on labor supply. That said, a bounding exercise suggests the effect on information delivery is too small to explain our labor supply results, and we see effects on labor supply in the sample of women who received information. We detail these analyses in footnote 23, after presenting the labor supply results.

Women could apply for the program by going to their village's new female weaving center on one of two application days, held at the end of November 2022. Women were required to attend with their husband, parent-in-law, or household head to ensure they were applying with the support of their family members. Once at the loom center, women and their family members completed a brief application process administered by a surveyor. If women had brought an application ticket, surveyors recorded the ID on the ticket and asked several questions to ensure it corresponded to the ID of the woman who had come to enroll; otherwise, surveyors asked more detailed identifying questions about the applicant. Women's ages were verified, either with identification cards presented during application or later with their village heads, and only those in Obeetee's target range (18-40) could apply.

There was oversubscription for all seven centers. We therefore held public lotteries at each center following the application days, in which we determined which women could begin

the program from its start along with a waitlist ordering for the rest. The research team delivered results of the lotteries to applicants in the final days of November 2022, and the program's training phase began December 1. The research team drew women from the waitlist if participants dropped out of the program in the initial weeks, before it was too late for a newcomer to catch up with training.

4 Conceptual Framework

How might assertive communication shift household decisions about female labor supply? Household models, in reduced form, point to three factors that determine household outcomes: the wife's utility, the husband's utility, and the weighting of the two (Browning and Chiappori, 1998; Chiappori, 1988, 1992; Manser and Brown, 1980; McElroy and Horney, 1981). In principle, women's use of assertive communication could shift the husband's utility or the weighting of the two; wives' communication skills might be a "distribution factor" (Browning and Chiappori, 1998) that raises the weight the household gives to their preferences, or could enable women to persuade their husbands, raising their husbands' support for the women's employment.[13]

Under either of these two mechanisms – a shift in the husband's utility or the weighting of utilities – communication skills should only raise women's labor supply for women who are more interested than their husbands in the wives' employment. This is when a wife would have an incentive to try to make her husband more supportive of her employment, and when an increase in women's bargaining power would raise their employment. This motivates our focus on the subgroup of women who were more interested than their husbands in employment at baseline.[14]

We ultimately find the strongest evidence for the treatment working by shifting husbands' preferences. To explore how exactly communication could change preferences, we write the husband's expected utility from his wife working as

$$E_h(U_h) + \lambda_h E_h(U_w)$$

The first term – $E_h(U_h)$ – represents the husband's private utility from the wife working, including factors such as the benefits from additional income, the costs of violating the

[13]It is also possible our treatment could have affected women's own utilities (e.g. by making them interested in work or influencing what they believed they could feasibly aspire to in life), but this seemed less likely ex ante and indeed we find no effects on women's own interest in employment.

[14]In theory, communication skills would reduce employment when women are less interested than their husbands, but this is true for a very small number of women in our sample, and hence we pool such couples with those who are equally interested in our empirical analyses.

norm that women not work, or the costs of the wife having less time for housework. We allow the husband to be uncertain about his private utility, reflecting the fact that women's employment is low in our setting and households have limited experience with it. The second term – $\lambda_h E_h(U_w)$ – is the altruistic utility the husband gets from his wife's wellbeing were she to work, where λ_h captures how he weights her utility against his own, and we allow him to be uncertain about her utility from work. The example see-feel-want statement from Section 3.4.1 – *"We've discussed how much our son could benefit from tutoring, but it's quite expensive. I'm feeling worried and anxious about how we would pay for it. I think I should start working. I could earn enough to pay for tutoring in just one week of work a month, and now that the kids are older my housework requires less time."* – makes clear how our training could have affected any component of the husband's utility. The first and last sentences could raise $E_h(U_h)$ by reminding the husband of benefits of the wife's work or providing new information about the costs and benefits. Likewise, the wife expressing her feelings and her preference could be seen as raising $E_h(U_w)$ or even λ_h. Empirically we find evidence for the treatment shifting $E_h(U_h)$.

5 Data and Empirical Specifications

5.1 Outcomes Data

Our outcomes are from three data sources, visualized in our study timeline (Figure A.3). First, we observe whether each woman in our sample applied for Obeetee's program, using records we kept during the application process. We match applicants to women in our sample with IDs on application tickets and identifying information provided upon application.

Second, we digitized registers in each loom center for the first 10 months of the program. This includes the four training months (December 2022 – March 2023) and the first six employment months (April – September 2023). The registers are paper records each center maintains on women's daily attendance, daily productivity, and monthly earnings. We sent members of the research team to the loom centers regularly throughout the 10-month period to ensure the registers were being maintained and were being maintained in a way that would allow us to identify individuals in our study from the registers. Members of our team then entered the information from each center's register in each month into a survey form. Each register's data was recorded separately by three members of our team to ensure accuracy. In practice, the loom centers' record keeping was imperfect and much of the daily data are missing. We therefore focus on monthly variables from this data that are rarely missing: women's monthly earnings and whether they attended at least once each month.

Third, we take outcomes data from endline surveys. Our main survey outcomes, reflecting women's communication styles and general employment, come from two waves of surveys with women, done about five weeks (EL1) and six months (EL2) after the end of the treatment. We were able to survey about 90% of women in our sample at each endline. We do not see significant differences in attrition rates between the treatment and control groups in the full sample or in either of the main subgroups of interest (Table A.2). Surveyors were re-assigned villages following the intervention, meaning surveyors were blind to treatment status. Some additional outcomes come from endline surveys conducted with husbands (separately from wives) at EL2, and from lab-in-the-field games we invited husbands and wives to play. Most games were played at the end of December 2022, though we continued to conduct the games through March 2023 for couples who had not been available earlier. Husbands in this setting tend to work long hours or migrate for work, and hence could be difficult to schedule surveys with. As a result, attrition is higher for these endline outcomes, with 75% of husbands being surveyed at EL2 and 70% of couples completing the games. These rates do not differ significantly by treatment (Table A.2).

We pre-registered outcomes and heterogeneity analyses, which we follow closely. The data appendix (Appendix B) provides additional information on the registration, including the minor deviations we make from the registration and their rationale.

5.2 Empirical Specifications

We estimate overall treatment effects with regressions of the form

$$Y_{i,m} = \beta T_m + \mu_s + \varepsilon_{i,m} \tag{1}$$

and estimate heterogeneous effects with

$$Y_{i,m} = \beta_1 T_m + \beta_2 W_{i,m} + \beta_3 T_m \times W_{i,m} + \mu_s + \varepsilon_{i,m} \tag{2}$$

where $Y_{i,m}$ is an outcome for woman i from meeting group m, and T_m is treatment assignment. We cluster standard errors by meeting group.

Our key dimension of heterogeneity, $W_{i,m}$, is a function of women's baseline responses to two survey questions, asking how interested they were in working outside the home, and how interested they thought their husbands were in them doing so. Interest was recorded on a 1-4 scale, where 1 meant very uninterested, 2 somewhat uninterested, 3 somewhat interested, and 4 very interested. We rely on women's predictions of husbands' interest as husbands were not surveyed at baseline. As discussed in Section 4, we expect positive effects on labor supply only when women are more interested than their husbands. 43% of women reported

greater interest than their husbands, 47% reported the same level, and just 10% reported lower interest. $W_{i,m}$ is an indicator for being in the first category, and given this distribution, $W_{i,m}$ is equivalent to an indicator for being above median in wife-minus-husband interest. This dimension of heterogeneity, including the split at the median, was pre-specified.[15]

μ_s are stratification controls. Recall that assignment of meeting groups to treatment was stratified by village and neighborhood within village, while assignment of households to meeting groups within their neighborhood was stratified by age and multi-woman household. We have limited variation within each strata for heterogeneity analysis; for our main heterogeneity specification, 33% of our sample comes from a cell that does not have a woman from each of the four combinations of T_m and $W_{i,m}$. We therefore control for village fixed effects, our highest level of stratification, in place of full strata controls in all of our regressions. In principle, this should not affect our estimates as the probability of assignment to treatment was 50% for all women; in practice, it could make a difference as the fraction of treated women in a strata does often deviate from 50%, due to uneven numbers within each strata and the group-level treatment assignment. Given this, we also include fixed effects for bins of the fraction of participants treated within each strata. Thus, throughout our regressions, μ_s denotes village and fraction-treated-within-strata fixed effects.

6 Main Results

6.1 Communication

We begin by considering the "first stage" effects of the treatment on women's knowledge and use of assertive communication at five weeks (EL1). To assess knowledge, we directly asked women if they remembered learning about the primary communication tool taught in the training – the see-feel-want statement – and what the three parts of this strategy are. Note that these questions were asked at the end of the survey, to avoid priming responses to other questions. To assess use of assertive communication, we used vignette studies that posed a hypothetical situation where a husband and wife disagreed about a decision, and asked respondents to imagine they were the wife in this situation. It then asked them, first, whether they would initiate a conversation with their husband about the topic, and, second, what they would say to their husband if they initiated a conversation. Surveyors matched these responses to one or more of several possible answer options (without reading the

[15] As discussed in footnote 14, communication skills would, in theory, reduce labor supply when women are less interested than their husbands. However, just 10% of couples in our sample meet this description; hence we pool them with equally interested couples for analysis. This pooling is implied by our pre-specified split at the median.

answer options aloud). Based on feedback from our partners who designed the treatment, we classified answer options into different styles of communication, including assertive, passive, aggressive, and negotiation. The specific decision the hypothetical couple disagreed about was randomized to be the wife working outside the home or the wife visiting her natal village. Appendix B provides the vignette script along with the communication response options and their classifications. The vignettes provide rich information on not just whether communication would occur, but what exact forms it would take. We used vignettes rather than asking women about their own household decisions because piloting revealed women and their families felt very uncomfortable with surveyors asking women detailed questions about their own household decision-making processes.

We find positive, highly significant effects on knowledge of the see-feel-want statement at EL1 (Table 1). The treatment increased the percentage of the three parts of this statement that women knew by around 30 p.p. ($p < 0.01$) (column (1)). The control group was largely unaware of this communication strategy, reporting only 3.6% of the components correctly on average. Thus, the treatment increased knowledge of this communication strategy by over eight times. We also consider effects on indicators for knowing each of the three parts, finding highly significant effects of around 30 p.p. on each part (columns (2)-(4)).

We then investigate use of assertive communication, using responses from the vignette. The vignette question asking what women would say to their husbands included four assertive options: summarize the situation, describe your options, tell him what you want, and tell him why you want it. We see a highly significant effect of 4.8 p.p. on the percent of the four responses selected (Table 1, column (5)). The control group mean is 48.5 with a standard deviation of 27.6, meaning the treatment effect represents a 0.172 standard deviation increase.

Columns (6)-(9) present effects on indicators for providing each of the four assertive responses. These can help identify what precisely changed in terms of assertive communication – for instance, whether women communicate information to inform their husbands' preferences or information about their own preferences. We see that women are more likely to use two types of strategies: summarizing the situation (an increase of 7.2 p.p., a 13% increase relative to the control mean, $p < 0.01$), and explaining why they want their preferred course of action (an increase of 8.2 p.p., a 15% increase relative to the control mean, $p < 0.01$). In contrast, there is no change in communicating what the respondent wanted, and a positive but statistically non-significant effect on describing emotions.[16] Thus, these results indicate

[16]The emotions outcome is an indicator for providing the second option in the list of options in Appendix B, "Describe the emotions you are feeling about the situation." There is another emotions-related option later in the list, "Describe the emotions he is making you feel," which is not considered assertive as assertive techniques (including those taught in our treatment) encourage the use of the pronoun "I" rather than

that the training led women to communicate information on how they see the situation and their rationales for their preferred courses of action, as opposed to information about their own preferences.

Table 2 presents effects on other forms of communication: an indicator for initiating conversation, along with indicators for using aggressive, passive, and negotiation styles of communication. Column (1) shows that there is no effect on whether respondents said they would initiate a conversation with their husbands, with 87% of the control group reporting in the affirmative for this outcome. Consistent with this, we find no effects on an index of women reporting they give input into various household decisions (Table A.4). These results suggest that the treatment did not change whether communication happened, but instead how it happened. We see no effect on aggressive communication, though this communication style is very rarely used (used by less than 3% of the control group) (Table 2, column (2)). Passive communication – i.e. women communicating that they will do whatever their husband wants – declines by 4.5 p.p. ($p < 0.1$), a 17% change relative to the control group mean (column (3)). There is no change in whether the respondent uses negotiation (column (4)), by which we mean offering a compromise to the husband (e.g. proposing something in between what the two want in this decision, or going with what the husband wants in another decision in exchange for the woman getting her preferred outcome in this decision).

Table A.3 presents effects on these outcomes by our main heterogeneity variable, the woman-more-interested indicator. There are no significant differences between the two subgroups in the effects on any of these outcomes, suggesting treated women in the two subgroups learned the intervention's material equally well.

We discuss two concerns related to reporting. The first is that treated women said they would use assertive communication in the vignette simply to please surveyors. This is difficult to rule out entirely, but the pattern of effects on the components of assertive communication is not consistent with this story. We see effects on women summarizing the situation and detailing their rationale, but not on describing their emotions or saying what they want. If women were simply trying to please surveyors, we should have also seen effects on these latter two as the treatment encouraged these as well. Note this pattern cannot be because women remembered different parts of the see-feel-want statement better than others; we see very similar effects on knowledge of each component in columns (2)-(4) of Table 1.

The second concern is that the control group used assertive communication just as much as the treated group, but the treated women were better at articulating these strategies,

"you" (see Section 3.4.1 for details). One concern is that surveyors might have confused the two options, categorizing some assertive responses about describing feelings under the second option. However, effects on describing emotions look very similar if we instead define the outcome as an indicator for providing either of these two responses.

making their responses easier for the surveyors to match to the assertive answer options. We do not believe this impacts the interpretation of our results for two reasons. First, better articulation would itself reflect more effective communication. Second, the control group is not more likely to provide a response that the surveyor could not categorize and put in the "other" category; if anything, the treatment group was more likely to provide such responses, consistent with them being more communicative in general (Table A.4).

Finally, we note that we do not find evidence of effects on other psychosocial dimensions of women's empowerment at EL1; the treatment did not affect women's generalized self-efficacy, nor did it affect their gender attitudes about the acceptability of female employment or the extent to which women should defer to their husbands' opinions (Table A.5). This is consistent with the intervention being narrowly targeted on communication, and suggests its "first stage" effects were about shifting women's communication.

6.2 Labor Supply and Earnings

Next, we test whether the communication skills resulting from the training translated into changes in women's labor supply and earnings. As mentioned previously, women are often more interested in work than their husbands (43% of our sample at baseline), but a significant part of the sample comprises households in agreement on this issue (47%), and theory would only predict positive effects in the former subgroup. Therefore, we estimate overall treatment effects (from equation 1) as well as heterogeneous effects (from equation 2), where heterogeneity is by an indicator for women reporting greater interest in their employment at baseline than they predicted for their husbands.[17] This dimension of heterogeneity, along with how we would form the heterogeneity variable, was pre-specified.[18]

We consider three main types of outcomes. The first is an indicator for applying for the employment program with the partner firm. The second are earnings in the program, which we observe for the program's first 10 months.[19] Participants' earnings are a function of their daily participation and, to a lesser extent, their output (i.e. knots woven) on the job. Specifically, during the first four months of the program (the training months), participants are paid a fixed amount per day they attend. The amount is reduced in months two through four if women do not reach knots targets. Following training, weavers are paid per knot

[17] We did not survey husbands at baseline so cannot use their actual reports.

[18] As mentioned in footnote 14, theory would predict negative effects on employment when husbands are more interested in their wives working than the women herself is in working. However, that describes only 10% of our sample, so we pool such households with households in agreement on this issue, as we pre-specified.

[19] Earnings are missing for some participants in five of the 10 months; they are missing for 1-2% of participants in December and April, for 10% of participants in May, and for 36% of participants in June and August. We set these women's earnings to the average earnings in their center in that month, though results look similar if we instead set these earnings to zero (Table A.6).

they weave, adjusted for complexity; in practice, it can be hard to determine exactly how many knots individuals weave so pay is highly driven by day-to-day attendance. We set earnings to zero for non-participants. Hence program earnings are a comprehensive measure of participation at both the intensive and extensive margins. Household communication could plausibly affect either margin, allowing women to convince their families they should join the program and/or attend on a daily basis; we explore differences in these two margins separately later on in this subsection. Finally, we use a survey measure of any employment outside the home in the preceding three months. We focus on responses at EL2, as only one of the three months preceding EL1 was post-treatment.

On average, there is no effect of the treatment on applying for the job, however, this masks heterogeneity by intra-household disagreement (columns (1)-(2), Table 3). 19.9% of our sample applied for the program, and the treatment effect on this outcome is 8.5 p.p. ($p < 0.05$) larger for women more interested in employment than their husbands, versus women equally or less interested. Summing the coefficients on treatment and the interaction, we see that the treatment effect in the woman-more-interested subgroup is 6.0 p.p. ($p = 0.095$). This represents an increase of 35% relative to the control mean in this subgroup.

This translated into significant shifts in program earnings. Across the 10 months for which we have data, the treatment raised earnings by 875 rupees ($p = 0.091$) in the woman-more-interested subgroup (column (3), Table 3). This is a 53% increase beyond the control mean in this subgroup. There was a negative but statistically non-significant effect on earnings outside of this subgroup. Turning to earnings by month in Table 4, we see positive treatment effects in the woman-more-interested subgroup for each of the first four training months (December - March). The effects dissipate in months five to eight (April - July), but re-emerge in months nine and 10 (August - September). The effect in the subgroup of interest in month 10 is 86 rupees, a 124% increase relative to the control mean in this subgroup. Figure 4 visualizes the monthly earnings effects in the subgroup of interest, highlighting both the magnitude of the effects and their temporal pattern.[20] Why do effects disappear in the middle of this period? April is usually a time of low female engagement in the firm's program due to an agricultural season, and out-of-work demands on women's time continue in May and June with additional agricultural work and a wedding season. We may see no treatment effects during this period because women's own interest in work declines; indeed, women's interest in employment declined significantly in both subgroups and both treatment arms between EL1 (done in December) and EL2 (done between March and May)

[20]The overall level of program earnings in the sample falls between the training and employment phases. All women who complete the firm's training can continue working if they wish, but some choose to leave post-training, reducing average program earnings in the sample.

(Table A.13).

The impacts on earnings could be due to increases in participation at the extensive or intensive margins, or due to a shift in productivity. To investigate this, we decompose the overall earnings effects into effects on indicators for positive earnings (Table A.7) and differences in earnings conditional on having positive earnings (Table A.8). We see similar effects on the month-by-month indicators as we saw above on month-by-month earnings. Turning to conditional earnings differences, the pattern is less clear, with the interaction coefficients changing sign month-to-month and differences generally not being significant. The exception is month one – when the interaction coefficient, and the sum of the treatment and interaction coefficients, are positive and significant – but recall earnings in this month were exclusively a function of attendance and not productivity. Thus, our main effects on earnings appear to be driven by participation in the program rather than productivity.

These effects on women's labor supply, present nearly a year after the intervention, are persistent relative to related, one-time interventions in similar settings. In a prior experiment done in villages near the ones studied here, McKelway (2025*b*,*a*) finds short-run effects on employment from a self-efficacy intervention for women and from showing women's families a video promoting Obeetee's program, but these effects had faded one year after the interventions. Likewise, Dean and Jayachandran (2019) find no employment effects at 13 months from a similar video intervention for female workers' families in India.[21]

Finally, column (4) of Table 3 shows impacts on whether women reported any employment outside the home in the last three months at EL2. There is an effect in the woman-more-interested subgroup of 7.3 p.p. ($p = 0.099$), a 19% increase compared to control women in that subgroup.[22] This indicates the employment effects with the partner firm are not driven by women substituting into this type of employment and away from other employment. Rather, the treatment increased overall employment for the subgroup of interest.[23]

[21] Another related study is Bursztyn et al. (2020), which randomized whether husbands in Saudi Arabia were told about other husbands' support for women working outside the home. The main outcome comes from a decision husbands made immediately afterwards. The authors did conduct a survey about four months later, when they see a directionally positive effect on women's employment, but they are not powered to detect a statistically significant effect.

[22] The any-employment measure from EL1 is in Table A.11, but as mentioned earlier, we do not expect effects on this measure since it was measured quite close to treatment. Indeed, we do not see significant effects on this outcome, overall or for the woman-more-interested subgroup.

[23] As discussed in Section 3.5, treatment increased delivery of information about the firm's program by 4.8 p.p. in the woman-more-interested subgroup. While this can be seen as an indication of effects on labor supply in this group, two analyses suggest the information differential cannot explain our main labor supply results. First, we see effects on labor supply when we restrict to women who received information (Table A.9). Second, we quantify how much of the labor supply effects can be explained by the information differential, by multiplying 4.8 p.p. with the effects of information delivery on labor supply outcomes among control women in the subgroup of interest. The information differential can explain only 0.5 p.p. of the 6.0 p.p. effect on application in the subgroup ($p = 0.125$ for the test that the effect equals 0.5 p.p.). Likewise,

Table A.10 presents effects by an additional pre-specified dimension of heterogeneity: women's age. The treatment effects are no different for women above and below the median age in our sample for any of our labor supply outcomes. Thus, the key dimension by which our effects vary is preference disagreement within the household.

6.3 Other Outcomes

Finally, we consider effects on other decisions couples often have diverging preferences over, using two sources of data. First, both endline surveys asked whether women had visited their natal village, gone to the market, or gotten a new saree in the preceding three months. We consider effects on indicators for each, along with an index of these three indicators and the analogous indicator for any employment. We estimate overall and heterogeneous effects, where heterogeneity for effects on a given activity is by an indicator for women reporting greater interest than their husbands in the women doing the activity at baseline. For the index, heterogeneity is by an index of the four woman-more-interested variables. The second source of data is the lab-in-the-field games. Couples who played the games played two games: a dictator game (in which husbands were endowed with 10 tokens and chose how many to give to their wives), and a trust game (in which any of 10 tokens husbands sent to their wives were doubled, and wives could send back tokens to their husbands). Couples were given a chance to communicate in private before the husband's choice in one of the games, and we randomized which one. Individuals in randomly selected couples could redeem the tokens for prizes, selected to be either women's or men's goods.[24] Our main outcome here is the number of tokens women ended each game with.

We find few effects on these other outcomes. Starting with the survey outcomes, we see a negative effect on the overall index of decisions at the first endline that is driven by women who were equally or less interested in the activities than their husbands, potentially due to uninterested women advocating against the activities (Table A.11). However, at EL2, we see no effects on the index or on any of the components aside from employment.[25] Turning to the games, we see no treatment effects on women's tokens in any of the four versions of the games (trust and dictator, crossed with pre-play communication) (Table A.12).

Thus our treatment led women to successfully advocate for their employment, but not

only Rs.7 of the Rs.223 effect on December earnings, and Rs.2 of the Rs.86 effect on September earnings, can be explained by information ($p = 0.037$ and 0.036).

[24]There were 10 optional prizes, each of which cost between one and five tokens: cologne, lipstick, men's sunglasses, earrings, a male watch, an anklet, a male necklace chain, a jewelry set, cloth for men's shirts, and a saree. We randomized which couples got prizes as we did not have enough budget to give prizes to everyone. The randomization was done after the games were played, so did not affect incentives in the games.

[25]We also see no heterogeneity in effects on this index by age, the other pre-specified dimension of heterogeneity (Table A.10).

for these other outcomes. We can only speculate as to why. One possible explanation is that persuading one's husband takes time and effort, and these other decisions are not as big a priority to women as employment. While women's stated interest in these other activities is at least as high as for employment (Figure 3), it is possible the interest questions picked up more on things that would be enjoyable right now and less on long-term priorities. Another explanation is that intra-household disagreement is weaker for these other decisions than for employment. While the heterogeneity analyses should help with this, it is possible that our measures of disagreement do not fully capture the intensity of spousal misalignment in employment versus other domains. A final explanation is that women's communication is more persuasive when husbands are more uncertain about the costs and benefits of the activity in question. There was likely to be much more uncertainty in the labor supply decision than in the others given the job with the firm was new and female employment rates are low in this setting. We next turn to mechanisms driving the labor supply results.

7 Mechanisms

We explore mechanisms underlying the impacts on labor supply in three parts. First, we explore why we only see effects in the subgroup of households where women reported greater interest in employment than their husbands. We then examine how women in this subgroup changed household decisions. We end the section with a discussion of persistence of effects on labor supply.

7.1 Why Was This Subgroup Affected?

We interpret the woman-more-interested heterogeneity as resulting from the intra-household misalignment of preferences; the treatment increased labor supply for the woman-more-interested subgroup because these were the women who would have used their communication skills to change household decisions about their labor supply. However, spousal preferences are not randomly assigned. Could a correlate of this preference misalignment, not the misalignment itself, explain our subgroup patterns?

We consider two classes of confounds. First is the possibility that women in the subgroup of interest learned the communication skills better. Contrary to this, the "first stage" effects on communication do not differ by subgroup (Table A.3). Likewise, we see no differences by subgroup in whether women attended any intervention session or in the number of sessions they attended (Table A.2). Thus, we conclude that the heterogeneous effects on labor supply are not likely to be driven by greater learning of the skills taught.

The second class of confounds is some other characteristic of this subgroup. To investigate this, we add potential confounds and their interactions with treatment to the specification estimated in equation 2, and then ask whether we still see heterogeneity in labor supply effects by woman-more-interested. We consider several possible confounds. First, we control for unobserved characteristics of women who report facing opposition from their husbands by using reported opposition in other decisions. We form an index of indicators for women reporting greater interest than their husbands in the women undertaking three activities: visiting their natal village, visiting the market, and getting a new saree. This index is highly predictive of being in our main subgroup of interest (column (1), Panel A, Table 5), suggesting husband opposition is correlated across decisions. However, our main heterogeneity results are similar in magnitude and significance when we control for this index and its interaction with treatment (columns (2)-(14), Panel A, Table 5). This indicates that our results stem from preference misalignment about employment, not an unobserved characteristic of women reporting opposition from their husbands.

Another possibility is that the heterogeneity stems from individual preferences rather than disagreement. As detailed in Section 5.2, the woman-more-interested indicator is based on separate measures of each spouse's interest, so effects could be larger simply when women are more interested or men less interested. But when we control for each spouse's interest and their interactions with treatment, the woman-more-interested heterogeneity remains significant and, if anything, increases in magnitude (Panel B, Table 5). This suggests our heterogeneity is driven specifically by disagreement, precisely when communication skills should matter.

Finally, we take an agnostic approach about the source of omitted variable bias impacting our results, using Lasso to select predictors of being in our subgroup of interest. We allow Lasso to select from the complete set of variables from our baseline survey, excluding the woman and husband interest variables (Lasso selects these in lieu of other variables if they are included, and we already confirmed above that our heterogeneity is robust to controlling for them). This means the Lasso selects from 121 variables, including demographic characteristics, measures of household decision-making, and women's employment behavior. The Lasso selects an indicator for being in one of the common subcastes in the setting, along with variables capturing husbands' preferences in non-employment decisions and decision-making about female labor supply (column (1), Panel C, Table 5). Importantly, our heterogeneity results are robust to controlling for the Lasso-selected variables and their interactions with treatment (columns (2)-(14)). Thus, our subgroup patterns appear to be driven by misaligned preferences for female labor supply, not some correlate of this misalignment.

7.2 How Did Treated Women Change Household Decisions?

Next, we investigate how treated women in the woman-more-interested subgroup changed household decisions about their labor supply. We note that, in principle, better communication in the workplace rather than the household could increase employment and earnings, but this story would predict positive effects in both subgroups and thus cannot explain our results; we therefore focus our mechanisms analyses on communication in the household rather than the workplace. Our conceptual framework in Section 4 highlights three mechanisms through which household decisions about female labor supply could change: changes in the wife's utility from work, changes in the husband's utility from the wife's work, or changes in bargaining power. We use empirical proxies of each of these three to test what about the household problem changed. For this analysis, we focus on the five-week endline (EL1) as we wish to isolate changes in household decision-making that could have led to the effects on labor supply, but data from the longer-term endline (EL2) are likely to also capture effects of labor supply or other outcomes on decision-making.

We begin by asking whether the treatment affected women's interest in working in our subgroup of interest. We find no effect (column (1), Table 6), meaning a change in women's preferences is unlikely to be the mechanism for the labor supply effects.

We then turn to husbands' preferences. Column (2) of Table 6 presents effects on women's predictions of their husbands' interest in female employment (husbands were not surveyed at EL1). We find a significant, positive effect on (predicted) husbands' interest in our subgroup. The effect is large in magnitude, at 0.2 on a 1-4 scale relative to a control mean of 2.1; this is equivalent to the treatment moving 20% of husbands in this subgroup from being somewhat uninterested (2 on the 1-4 scale) to somewhat interested (3 on the scale), or moving 10% from somewhat uninterested to very interested (4 on the scale). Combining the two interest outcomes, we form an indicator for women being more interested in employment than their husbands at EL1. Among women who were more interested at baseline, the treatment reduced the likelihood of being more interested at EL1 by 11.0 p.p. (or by 18%, $p < 0.01$, column (3)). These results are consistent with women using communication skills to align their husbands' views with their own.

One concern, given we are relying on women's predictions of husbands' interest, is that husbands' actual interest did not change, but rather women in the affected subgroup had been underestimating their husbands' interest and the treatment enabled them to learn their husbands' true interest. However, we see no effect on whether women accurately predicted their husbands' interest at EL2, when we surveyed both spouses (Table A.13). Likewise, this story would predict the effects on labor supply should be driven by more recently married couples, as they should be less likely to know each others' preferences; we see no evidence

for this, and if anything, effects are slightly larger in couples who have been married longer (Table A.13).[26]

Next, we test for the third possibility: the treatment affected bargaining power. Bargaining power is difficult to measure, but two analyses suggest an increase in women's bargaining power did not drive the effects on labor supply. We first consider effects at EL1 on a widely-used proxy for bargaining power: an index of women reporting having final say over various household decisions (spending on food, spending on clothing, whether to purchase a large household item, and spending of the husband's earnings). We see no effect on this index in the woman-more-interested subgroup (column (4), Table 6). We also conduct a test that does not rely on a direct measure of bargaining power. Bargaining power represents the weight that the household places on the woman's versus husband's utility in making its decisions. Thus, one way to capture women's bargaining power at EL1 is to examine how predictive their EL1 interest in employment is of their actual employment at that time relative to their husbands' EL1 interest. We can then test for a treatment effect on bargaining power by examining whether the treatment increases the predictiveness of wives' versus husbands' interest in our subgroup. This is the test we conduct in column (5) of Table 6, for the employment outcome closest in time to our EL1 survey (December earnings from the partner firm). Among households assigned control in our subgroup, husbands' endline interest significantly predicts December earnings but wives' interest does not, consistent with husbands enjoying a great deal of bargaining power in this setting. However, the treatment does not change the predictiveness of wives' versus husbands' interest in our subgroup ($p = 0.742$).[27] These analyses suggest effects on bargaining power do not explain our results.

Thus, the data suggest the mechanism was women using their communication skills to change their husbands' preferences. It is harder to know what precisely about husbands' preferences changed, but we test for two potential mechanisms within the preferences outlined in Section 4: women providing information that informs husbands' own preferences ($E_h(U_h)$), or women informing husbands about the women's preferences ($E_h(U_w)$). The treatment may also have affected the third component of husbands' preferences – their altruism towards their wives (λ_h) – but we do not have a way to test directly for effects on λ_h.[28]

The data provide the most support for the first channel: shifts in $E_h(U_h)$. First, recall

[26] We focus on December earnings from the partner firm for this analysis, as it is the labor supply outcome that most closely coincides in time with the EL1 survey.

[27] It is possible that the predictiveness of wives' versus husbands' preferences captures empathy in addition to bargaining power. However, as noted above, we see no effects in the woman-more-interested subgroup on the index of final say, a widely-used proxy for bargaining power.

[28] As noted in footnote 27, the predictiveness of wives' versus husbands' utility may capture both empathy and bargaining power. The fact that we see no effects in our subgroup of interest on relative predictiveness or on the direct proxy for bargaining power could be interpreted as evidence of no effects on empathy.

that the "first stage" effects on assertive communication, both overall and in our subgroup of interest (Tables 1 and A.3), were driven by women summarizing the situation and explaining their rationale, rather than describing their emotions or saying what they wanted. Second, the treatment does not affect how accurately husbands in our subgroup predicted their wives' interest in employment at EL2, when we surveyed both spouses (Table A.13). Finally, we see suggestive evidence that the effect on December earnings is concentrated among women who were unemployed at baseline[29] – the women whose husbands are most likely to lack information about what life would look like if their wives were employed and hence most persuadable with information – though we lack power to detect heterogeneity here, in part because of the low baseline employment rate.

Finally, we note that negotiation, like that studied in Ashraf et al. (2020), is unlikely to be the mechanism driving our effects. We saw that the treatment, both overall and in our subgroup of interest, did not affect women's reports of proposing compromises to their husbands (Tables 2 and A.3). We also see no evidence that women compensated for their employment at EL2 by engaging less in activities they often face opposition from their husbands in; the treatment had no effects in the woman-more-interested subgroup on women visiting their natal villages, visiting the market, or getting a new saree at EL2 (Table A.14).

7.3 Understanding Persistence

We find persistent impacts of communication on women's labor supply. Is this because communication allowed women to overcome day-to-day family objections to their work? Or did communication allow women to overcome a fixed cost of household opposition to become employed, which then had persistent effects?

Table A.15 presents impacts on communication in the longer-term, i.e. the same outcomes as in Tables 1 and 2 but from the six-month endline (EL2). There were still positive effects on knowledge and use of assertive communication at EL2, but they were smaller than at EL1. We also consider effects on husbands' predictions of their wives' communication styles at EL2. Husbands were given the same vignettes as women, but asked what they thought their wives would do in those scenarios. The results here are inconclusive: we find no effects on husbands' predictions that their wives would use assertive communication (Table A.16), but this could be because the changes in communication were too subtle to discern or because the treatment effect on women's assertive communication had faded by EL2.

[29] As mentioned previously, we focus on December earnings as it is the labor supply outcome that most closely coincides in time with EL1. We note also that this finding is not simply because women who were employed at baseline already had jobs they could not leave; employment in this setting tends to be transitory and contracts informal. If anything, December earnings positively correlate with baseline employment.

In terms of persistence of labor supply effects, these results are more consistent with the second story. The effect on communication faded in the six months post-treatment, yet the treatment allowed women in the more-interested subgroup to participate in the firm's job at higher rates and earn more money from it nearly one year later (Tables A.7 and 4). This suggests there was a fixed cost of husband opposition that the treatment enabled women in our subgroup to overcome, but once they overcame it and became employed, they stayed in the labor force.

8 Conclusion

This paper shows that communication skills can have large, persistent effects on labor supply when women face opposition from their husbands. Decisions about women's employment are among the most consequential households make, and despite numerous policies aimed at increasing female labor force participation, sustained increases in employment have proven difficult to achieve (Heath et al., 2024).

Our results suggest women face frictions to communicating optimally in the status quo. This is in contrast to standard sender-receiver or household models, which feature communication that is friction-less or at least optimal from the perspective of the agent. One question is why women had not already figured out how to communicate more effectively. This phenomenon is unlikely to be limited to our setting; the prevalence of communication tips in the popular press (e.g. Figure A.1) and expanse of academic work developing communication skills (Peneva and Mavrodiev, 2013) suggests it is pervasive. This phenomenon is reminiscent of findings from Bloom et al. (2012) that managers do not adopt productivity-enhancing practices available to them, along with results from Heller et al. (2016) that suggest the tendency of at-risk youth to make decisions too quickly may contribute to crime and school dropout. Understanding why individuals fail to communicate optimally is an interesting direction for future research.

Was the intervention Pareto enhancing for the household? It seems reasonable to conclude that the intervention made women better off,[30] but it is less clear whether husbands were better off. Our mechanisms analyses suggest husbands maintained decision rights, but the treatment led women to convey information that changed their husbands' minds about female employment. This should have made husbands better off to the extent that they were better informed. Of course it is possible that women provided biased information, but the

[30]We note that we do not find effects on women's happiness, using the standard question from the World Values Survey asking respondents to assess their overall happiness in life (Table A.5). It is possible that the way this question is framed encourages respondents to think about their lives in too broad or too historical terms for us to detect gains in their happiness.

persistence of the labor supply effects suggests many husbands did not change their minds as they experienced their wives working.

For policy, our results suggest an approach for improving women's agency and outcomes even when husbands have decision rights. In settings with entrenched gender norms and inequalities, improving women's communication skills may be easier and more culturally acceptable than raising their bargaining power. Testing the relative efficacy of these two approaches, and the impact of communication skills in other settings, remain important questions for future work.

Our results also have important implications for labor market policy. They suggest demand-side interventions to expand jobs for women, like our partner firm's program, can be impeded by supply-side constraints operating within the household. However, the constraint can be alleviated by developing women's communication skills.

Was our intervention a cost-effective way to raise female employment? We provide a back-of-the-envelope calculation that considers the cost of getting one woman into a job with our communication training relative to vocational training, a more traditional active labor market policy that has been a significant policy focus for governments in developing countries. India has a large network of Industrial Training Institutes (ITIs) that provide vocational training and also include placement cells to help graduates find jobs. In 2022, India's ITI network had an annual training capacity of about 3 million people (ASER Centre, 2022) and an annual expenditure of $1.176 billion (NITI Aayog, 2023). Prior work has estimated that receiving vocational training increases women's employment in India by 6 p.p. (Maitra and Mani, 2017).[31] Using a conservative assumption that ITIs are 100% full each year, the cost of getting one woman into a job through an ITI is about $6536. Our treatment raised employment only in the woman-more-interested subgroup, but this group could be easily identified and targeted via baseline screening. The per-person cost of our communication training, plus baseline surveys (for screening) and delivery of job information (our analogue to the ITI placement services), was about $20. This implies a cost of $274 to get one woman employed based on the 7.3 p.p. effect on any employment (Table 3), or $741 based on the 2.7 p.p. effect on long-run employment with the firm (Table A.7). Both are under 12% the cost of vocational training, meaning communication skills offer a highly cost-effective way to increase women's employment.

[31] This is consistent with estimates from work in other developing countries (Field et al., 2019), including a meta-analysis (Stöterau et al., 2022).

References

Adhvaryu, Achyuta, Namrata Kala, and Anant Nyshadham. 2023. "Returns to on-the-job soft skills training." *Journal of Political Economy*, 131: 2165–2208.

Agte, Patrick, Orazio Attanasio, Pinelopi K. Goldberg, Aishwarya Lakshmi Ratan, Rohini Pande, Michael Peters, Charity Troyer Moore, and Fabrizio Zilibotti. 2024. "Gender Gaps and Economic Growth: Why Havent Women Won Globally (Yet)?" EGC Discussion Paper 1105.

Anderson, Siwan. 2024. "The Complexity of Female Empowerment in India." *Studies in Microeconomics*, 12(1): 74–92.

Antonakis, John, Giovanna d'Adda, Roberto A. Weber, and Christian Zehnder. 2022. ""Just Words? Just Speeches?" On the Economic Value of Charismatic Leadership." *Management Science*, 68(9): 6355–6381.

ASER Centre. 2022. "Vocational Training and Education in India." ASER Centre Technical Report. Version 4.

Ashraf, Nava, Erica Field, Alessandra Voena, and Roberta Ziparo. 2023. "Gendered Spheres of Learning and Household Decision Making over Fertility." Working Paper.

Ashraf, Nava, Gharad Bryan, Alexandra Delfino, Emily Holmes, Leonardo Iacovone, and Andrew Pople. 2022*a*. "Learning to See the World's Opportunities: The Impact of Imagery on Entrepreneurial Success." Working Paper.

Ashraf, Nava, Natalie Bau, Corinne Low, and Kathleen McGinn. 2020. "Negotiating a Better Future: How Interpersonal Skills Facilitate Intergenerational Investment." *The Quarterly Journal of Economics*, 135(2): 1095–151.

Ashraf, Nava, Oriana Bandiera, Virginia Minni, and Victor Quintas-Martinez. 2022*b*. "Gender Roles and the Misallocation of Labour Across Countries." Working Paper.

Barrera-Osorio, Felipe, Adriana Kugler, and Mikko Silliman. 2023. "Hard and soft skills in vocational training: Experimental evidence from Colombia." *The World Bank Economic Review*, 37: 409–436.

Bernhardt, Arielle, Erica Field, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer Moore. 2018. "Male Social Status and Women's Work." *AEA Papers and Proceedings*, 108: 363–67.

Björkman Nyqvist, Martina, and Seema Jayachandran. 2017. "Mothers Care More, but Fathers Decide: Educating Parents about Child Health in Uganda." *American Economic Review: Papers and Proceedings*, 107(5): 496500.

Björkman Nyqvist, Martina, Seema Jayachandran, and Céline Zipfel. 2024. "A mother's voice: Impacts of spousal communication training on child health investments." *Journal of Development Economics*, 168.

Bloom, Nicholas, Benn Eifert, Aprajit Mahajan, David McKenzie, and John Roberts. 2012. "Does Management Matter? Evidence from India." *The Quarterly Journal of Economics*, 128(1): 1–51.

Browning, Martin, and Pierre-André Chiappori. 1998. "Efficient Intra-Household Allocations: A General Characterization and Empirical Tests." *Econometrica*, 66(6): 1241–78.

Bursztyn, Leonardo, Alessandra L. González, and David Yanagizawa-Drott. 2020. "Misperceived Social Norms: Women Working Outside the Home in Saudi Arabia." *American Economic Review*, 110(10): 2997–3029.

Bursztyn, Leonardo, Alexander W. Cappelen, Bertil Tungodden, Alessandra Voena, and David Yanagizawa-Drott. 2024. "How Are Gender Norms Perceived?" Working Paper.

Chancel, Lucas, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman, ed. 2022. *World Inequality Report 2022.* World Inequality Lab.

Chiappori, Pierre-André. 1988. "Rational Household Labor Supply." *Econometrica*, 56(1): 63–89.

Chiappori, Pierre-André. 1992. "Collective Labor Supply and Welfare." *Journal of Political Economy*, 100(3): 437–67.

Chiplunkar, Gaurav, and Pinelopi K. Goldberg. 2021. "Aggregate Implications of Barriers to Female Entrepreneurship." NBER Working Paper 28486.

Chiplunkar, Gaurav, and Tatjana Kleineberg. 2024. "Gender Barriers, Structural Transformation, and Economic Development." Darden Business School Working Paper No. 5026505.

Coffman, Lucas, and Paul Niehaus. 2020. "Pathways of persuasion." *Games and Economic Behavior*, 124: 239–253.

Conlon, John J, Malavika Mani, Gautam Rao, Matthew W Ridley, and Frank Schilbach. 2021. "Learning in the Household." National Bureau of Economic Research.

Dahl, Gordon, and Katrine V. Løken. 2024. "Families, Public Policies, and the Labor Market." Rockwool Foundation Berlin Discussion Paper Series No. 23/24.

Dean, Joshua T., and Seema Jayachandran. 2019. "Changing Family Attitudes to Promote Female Employment." *AEA Papers and Proceedings*, 109: 138–42.

DellaVigna, Stefano, and Matthew Gentzkow. 2010. "Persuasion: Empirical Evidence." *Annual Review of Economics*, 2: 643–669.

Field, Erica M, Leigh L Linden, Ofer Malamud, Daniel Rubenson, and Shing-Yi Wang. 2019. "Does vocational education work? Evidence from a randomized experiment in Mongolia." National Bureau of Economic Research.

Field, Erica, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer Moore. 2021. "On Her Own Account: How Strengthening Women's Financial Control Impacts Labor Supply and Gender Norms." *American Economic Review*, 111(7): 2342–75.

Fletcher, Erin K., Rohini Pande, and Charity Troyer Moore. 2018. "Women and Work in India: Descriptive Evidence and a Review of Potential Policies." Harvard Kennedy School Faculty Research Working Paper RWP18-004.

Gordon, Thomas. 2008. *Parent Effectiveness Training: The Proven Program for Raising Responsible Children.* Harmony/Rodale.

Groh, Matthew, Nandini Krishnan, David McKenzie, and Tara Vishwanath. 2016. "The Impact of Soft Skills Training on Female Youth Employment: Evidence from a Randomized Experiment in Jordan." *IZA Journal of Labor Development*, 5(9).

Heath, Rachel, and Seema Jayachandran. 2018. "The Causes and Consequences of Increased Female Education and Labor Force Participation in Developing Countries." In *The Oxford Handbook of Women and the Economy.* , ed. Susan L. Averett, Laura M. Argys and Saul D. Hoffman. New York:Oxford University Press.

Heath, Rachel, and Xu Tan. 2020. "Intrahousehold Bargaining, Female Autonomy, and Labor Supply: Theory and Evidence from India." *Journal of the European Economic Association*, 18(4): 192868.

Heath, Rachel, Arielle Bernhardt, Girija Borker, Anne Fitzpatrick, Anthony Keats, Madeline McKelway, Andreas Menzel, Teresa Molina, and Garima Sharma. 2024. "Female Labour Force Participation." *VoxDevLit*, 11(1).

Heller, Sara B., Anuj K. Shah, Jonathan Guryan, Jens Ludwig, Sendhil Mullainathan, and Harold A. Pollack. 2016. "Thinking, Fast and Slow? Some Field Experiments to Reduce Crime and Dropout in Chicago." *The Quarterly Journal of Economics*, 132(1): 1–54.

Hsieh, Chang-Tai, Erik Hurst, Charles I. Jones, and Peter J. Klenow. 2019. "The Allocation of Talent and U.S. Economic Growth." *Econometrica*, 87(5): 1439–1474.

Jayachandran, Seema. 2015. "The Roots of Gender Inequality in Developing Countries."

Annual Review of Economics, 7(1): 63–88.

Jayachandran, Seema. 2021. "Social Norms as a Barrier to Women's Employment in Developing Countries." *IMF Economic Review*, 69(3): 576–595.

Kaur, Jalnidh. 2024. "How Much Do I Matter? Teacher Self-Beliefs, Effort, and Education Production." Working Paper.

King, Heidi B., James Battles, David P. Baker, Alexander Alonso, Eduardo Salas, John Webster, Lauren Toomey, and Mary Salisbury. 2008. "TeamSTEPPS^{TM}: Team Strategies and Tools to Enhance Performance and Patient Safety." In *Advances in Patient Safety: New Directions and Alternative Approaches (Vol. 3: Performance and Tools)*. , ed. Kerm Henriksen, James B. Battles, Margaret A. Keyes and Mary L. Grady. Rockville, MD:Agency for Healthcare Research and Quality (US).

Lazarus, Arnold. 1973. "On Assertive Behavior: A Brief Note." *Behavior Therapy*, 4: 697–699.

Leventhal, Katherine Sachs, Jane Gillham, Lisa DeMaria, Gracy Andrew, John Peabody, and Steve Leventhal. 2015. "Building Psychosocial Assets and Wellbeing among Adolescent Girls: A Randomized Controlled Trial." *Journal of Adolescence*, 45: 284–95.

Leventhal, Katherine Sachs, Lisa M. DeMaria, Jane E. Gillham, Gracy Andrew, John Peabody, and Steve M. Leventhal. 2016. "A Psychosocial Resilience Curriculum Provides the "Missing Piece" to Boost Adolescent Physical Health: A Randomized Controlled Trial of Girls First in India." *Social Science & Medicine*, 161: 37–46.

Lowe, Matt, and Madeline McKelway. 2025. "Coupling Labor Supply Decisions: An Experiment in India." Working Paper.

Maitra, Pushkar, and Subha Mani. 2017. "Learning and earning: Evidence from a randomized evaluation in India." *Labour Economics*, 45: 116–130.

Manser, Marilyn, and Murray Brown. 1980. "Marriage and Household Decision-Making: A Bargaining Analysis." *International Economic Review*, 21(1): 31–44.

McElroy, Marjorie B., and Mary Jean Horney. 1981. "Nash-Bargained Household Decisions: Toward a Generalization of the Theory of Demand." *International Economic Review*, 22(2): 333–49.

McKelway, Madeline. 2022. "Women's Employment and Empowerment: Descriptive Evidence." *AEA Papers and Proceedings*, 112: 54145.

McKelway, Madeline. 2025*a*. "How Does Women's Employment Affect Their Time Use? Evidence from a Randomized Encouragement Design in India." Working Paper.

McKelway, Madeline. 2025*b*. "Women's Self-Efficacy and Economic Outcomes: Experimental Evidence from India." Working Paper.

NITI Aayog. 2023. "Transforming Industrial Training Institutes."

Olivetti, Claudia, Jessica Pan, and Barbara Petrongolo. 2024. "The Evolution of Gender in the Labor Market." NBER Working Paper 33153.

Orkin, Kate, Robert Garlick, Mahreen Mahmud, Richard Sedlmayr, Johannes Haushofer, and Stefan Dercon. 2024. "Aspiring to a Better Future: Can a Simple Psychological Intervention Reduce Poverty?" Working Paper.

Peneva, Ivelina, and Stoil Mavrodiev. 2013. "A Historical Approach to Assertiveness." *Psychological Thought*, 6(1): 3–26.

Schwarzer, Ralf, and Matthias Jerusalem. 1995. "Generalized Self-Efficacy Scale." In *Measures in Health Psychology: A User's Portfolio. Causal and Control Beliefs.* , ed. John Weinman, Stephen C. Wright and Marie Johnston, 35–7. Windsor, England:NFER-NELSON.

Stöterau, Jonathan, Johanna Kemper, and Andrea Ghisletta. 2022. "The impact of vocational training interventions on youth labor market outcomes: A meta-analysis." *Available at SSRN 4217580*.

Subramanian, Nikhita. 2024. "Workplace Attributes and Womens Labor Supply Decisions: Evidence from a Randomized Experiment." Working Paper.

Tannen, Deborah. 1995. "The Power of Talk: Who Gets Heard and Why." *Harvard Business Review*.

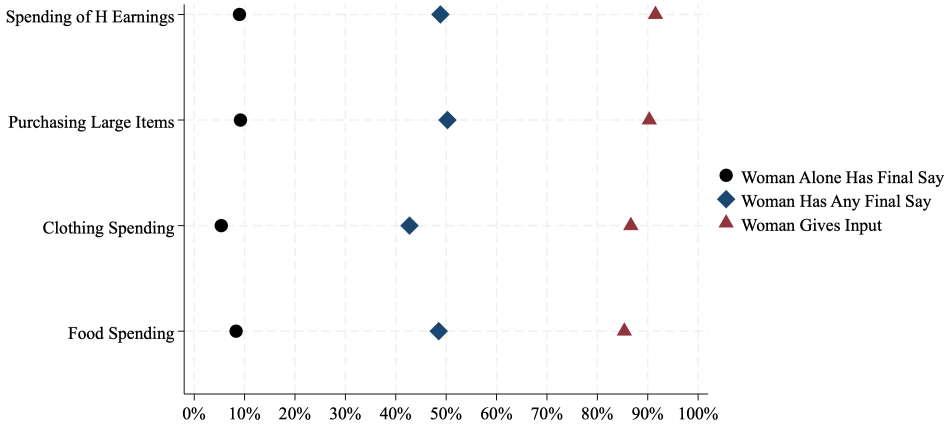
United Nations Statistics Division. 2015. *The World's Women 2015: Trends and Statistics.* United Nations.

World Bank. 2012. *World Development Report 2012: Gender Equality and Development.* Washington, DC:World Bank.

World Bank. 2024. "Ratio of female to male labor force participation rate (%) (modeled ILO estimate)." *World Development Indicators*, https://data.worldbank.org/indicator/SL.TLF.CACT.FM.ZS. Accessed 4 June 2025.

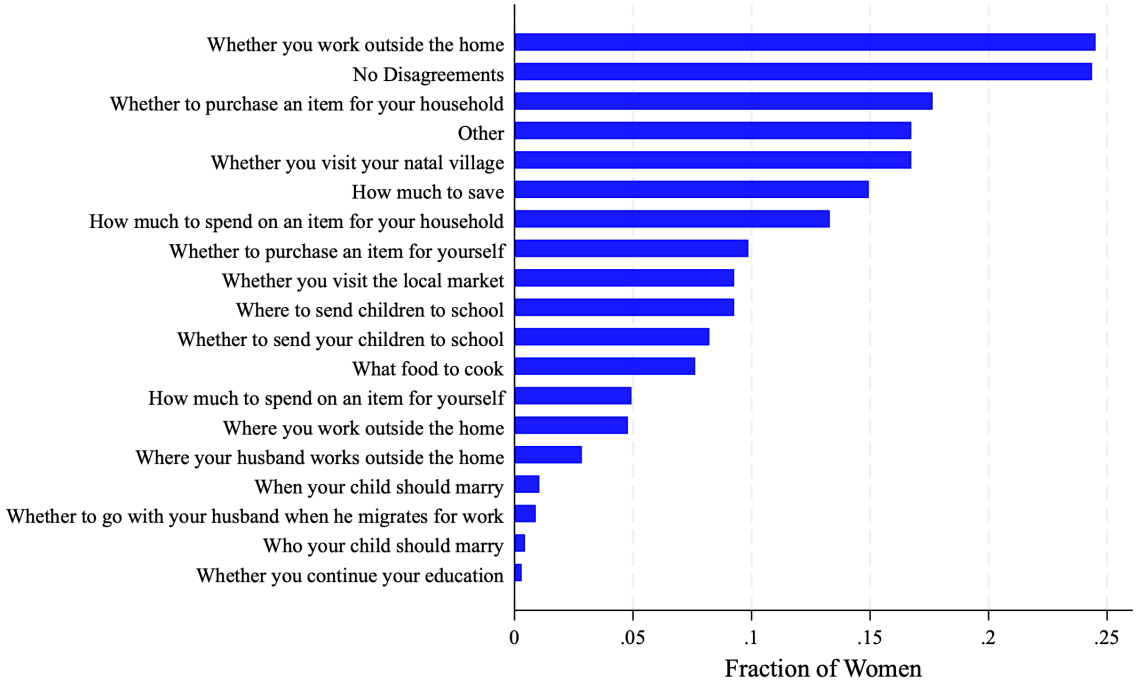
WorldBeing. 2022. "Assertive Communication Curriculum Facilitator's Manual." 1–51. Baltimore, MD.

Figure 1: Women's Final Say Versus Input



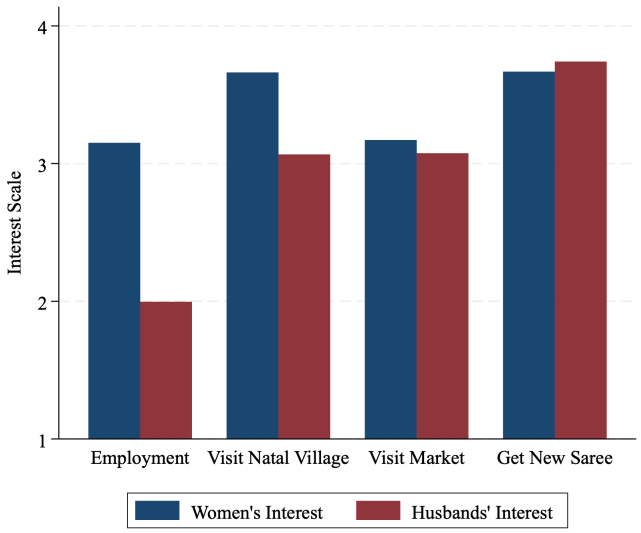
Notes: This figure visualizes women's baseline responses to questions asking who in the household has final say over various decisions and whether the women give input. "Woman Alone Has Final Say" means women reported being the only person with final say, while "Woman Has Any Final Say" means women reporting being at least one of the people with final say. The sample sizes range from 1,526–1,538, based on the number of refusal and not-applicable responses for each question.

Figure 2: Decisions in Which Couples Hold Different Opinions



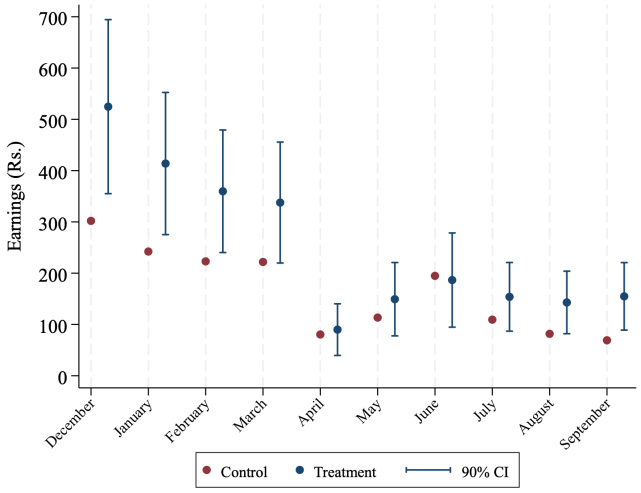
Notes: This figure visualizes the distribution of women's responses to the question asking what decisions they and their husbands often have different opinions about. Responses are from the control group at EL2, and respondents could select multiple responses. The sample size is 669.

Figure 3: Interest in Women Doing Various Activities



Notes: This figure visualizes women's and husbands' interest in the women working outside the home, visiting their natal village, going to the local market, and getting a new saree. Interest is recorded as: 1 = very uninterested, 2 = somewhat uninterested, 3 = somewhat interested, or 4 = very interested. Data come from EL2 surveys with women and husbands. The sample for each activity is restricted to control-group couples where both spouses provided their interest in the activity, giving samples sizes of 526–533 couples across the activities.

Figure 4: Effects on Firm Earnings by Month, in W More Interested Subgroup



Notes: This figure visualizes the treatment effects on monthly earnings in the partner firm's program in the woman-more-interested subgroup. The means and confidence intervals come from summing coefficients of the regressions reported in Table 4.

Table 1: "First Stage" Effects on Assertive Communication

	Knowledge of See-Feel-Want Statement				Use of Assertive Communication				
	% Parts Known (1)	Knows See (=1) (2)	Knows Feel (=1) (3)	Knows Want (=1) (4)	% Components Used (5)	Summarize Situation (=1) (6)	Describe Emotions (=1) (7)	Tell Him What (=1) (8)	Tell Him Why (=1) (9)
Treat	30.120***	0.301***	0.303***	0.299***	4.755***	0.072***	0.038	-0.003	0.082***
	(1.844)	(0.021)	(0.022)	(0.022)	(1.596)	(0.027)	(0.024)	(0.028)	(0.029)
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	3.613	0.025	0.025	0.059	48.512	0.575	0.248	0.582	0.536
N	1406	1406	1406	1406	1400	1400	1400	1400	1400

Notes: All outcomes are from women's five week surveys (EL1). Women were asked about whether they remembered learning about See-Feel-Want statements during the intervention and what the three parts of the See-Feel-Want statement were (Describe how you see the situation, Describe how you feel about the situation, and Say what you want). The outcome in column (1) is the percent of the three parts the women gave correctly, while the outcomes in columns (2)-(4) are indicators for correctly providing each part. The remaining outcomes are from the vignette question – described in Section 6.1 – asking women what they would say to their husbands. Assertive communication is represented by the following responses: 1) summarizing the situation, 2) describing one's emotions about the situation, 3) telling one's husband what you want, and/or 4) telling one's husband why you want what you do. The outcome in column (5) is the percent of these four responses the woman provided, while the outcomes in columns (6)-(9) are indicators for providing each of the four. Data are pooled across vignette topic. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table 2: Effects on Other Communication Styles

	Initiate (=1)	Aggressive (=1)	Passive (=1)	Negotiation (=1)
	(1)	(2)	(3)	(4)
Treat	0.022	-0.004	-0.045*	0.024
	(0.018)	(0.010)	(0.024)	(0.016)
Strata Controls	Yes	Yes	Yes	Yes
Omitted Group Mean	0.870	0.029	0.263	0.102
N	1402	1400	1400	1400

Notes: All outcomes are from the vignettes in women's five week surveys (EL1). See Section 6.1 for full details on the vignettes. The outcome in column (1) is an indicator for women saying they would initiate a conversation with their husbands. The rest of the outcomes are based on the question asking women what they would say to their husbands. The outcome in column (2) is an indicator for a woman responding that she would tell her husband that he is wrong/unreasonable/stupid/never lets her get what she wants. The outcome in column (3) is an indicator for a woman responding that she will do whatever her husband wants. The outcome in column (4) is an indicator for a woman responding that she would offer a compromise. Data are pooled across vignette topic. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table 3: Effects on Women's Labor Supply

	Applied (=1) (1)	Applied (=1) (2)	Total Earnings from Firm (Rs.) (3)	Any Emp. (=1) (4)
Treat	0.012	-0.025	-330.425	-0.055
	(0.027)	(0.033)	(424.773)	(0.040)
W More Interested		-0.034	-158.375	-0.039
		(0.028)	(460.993)	(0.046)
Treat x W More Interested		0.085**	1205.659**	0.128**
		(0.041)	(605.220)	(0.059)
P-Val: Treat + Treat x W More = 0		0.095*	0.091*	0.099*
Strata Controls	Yes	Yes	Yes	Yes
Omitted Group Mean	0.192	0.205	1796.482	0.430
N	1540	1523	1523	1344

Notes: The outcome in columns (1) and (2) is an indicator for applying for the partner firm's program. The outcome in column (3) is the total earnings from the firm's program, summed over the 10 months for which we have earnings data. Earnings are in Rupees and are set to 0 for non-participants. The earnings of weavers with missing earnings for a given month are imputed using the average earnings of weavers from that loom center in that month. See footnote 19 for more details on missing earnings, and see Table A.6 for effects on earnings using an alternative imputation. The outcome in column (4) is from women's six-month endline surveys (EL2). Women were asked if they had worked in any of a comprehensive list of sectors (including the partner firm's program) to earn income in the preceding three months. Column (4)'s outcome is an indicator for women reporting any work for income off their own household's farm. "W More Interested" is an indicator for women reporting greater interest in their employment than their husbands at baseline. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table 4: Effects on Firm Earnings by Month

	Earnings from Firm (Rs.)									
	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treat	-41.715	-61.523	-62.820	-47.735	-7.193	-44.676	-33.856	18.167	-21.899	-27.176
	(94.338)	(69.832)	(66.330)	(63.662)	(20.320)	(37.336)	(37.289)	(29.236)	(31.910)	(35.443)
W More Interested	-125.524	-62.187	-56.505	-31.462	34.033	5.482	79.079	46.896	-12.710	-35.478
	(94.347)	(71.120)	(66.138)	(64.078)	(25.730)	(43.007)	(55.703)	(38.018)	(37.594)	(34.372)
Treat x W More Interested	264.465**	233.074**	199.455**	163.563*	16.659	80.525	25.650	26.336	83.075*	112.857**
	(123.683)	(97.516)	(88.644)	(87.597)	(36.272)	(55.139)	(64.797)	(46.359)	(45.276)	(49.199)
P-Val: Treat + Treat x W More = 0	0.031**	0.042**	0.060*	0.106	0.757	0.409	0.883	0.273	0.099*	0.033**
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	427.494	304.424	279.595	253.316	46.443	107.944	115.710	62.461	94.482	104.614
N	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523

Notes: The outcomes are earnings from the firm's program in each of the 10 months for which we have earnings data. Earnings are in Rupees and are set to 0 for non-participants. The earnings of weavers with missing earnings for a given month are imputed using the average earnings of weavers from that loom center in that month. See footnote 19 for more details on missing earnings, and see Table A.6 for effects on earnings using an alternative imputation. "W More Interested" is an indicator for women reporting greater interest in their employment than their husbands at baseline. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table 5: Robustness of Heterogeneity to Controlling for Confounds

	W More Interested (=1)	Applied (=1)	Earnings from Firm (Rs.)											Any Emp. (=1)
			Total	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	EL2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Panel A: Husband Opposition in Other Decisions														
W More Interested in Other Activities Index	0.139***													
	(0.011)													
Treat x W More Interested		0.073*	1330.625**	286.395**	249.070**	213.540**	170.380*	22.005	95.495	46.544	30.245	90.004*	126.947**	0.170***
		(0.042)	(653.532)	(132.929)	(103.512)	(93.563)	(91.150)	(37.634)	(60.214)	(69.628)	(50.312)	(50.210)	(55.341)	(0.062)
Panel B: Individual Interest														
W Interest (1-4) in W Employment	0.294***													
	(0.009)													
H Interest (1-4) in W Employment	-0.311***													
	(0.006)													
Treat x W More Interested		0.190***	2801.212***	607.171***	571.867***	476.739***	385.363**	43.770	156.159*	139.502	131.726*	146.956**	141.960*	0.194*
		(0.064)	(1040.169)	(227.173)	(179.810)	(161.308)	(156.184)	(61.011)	(92.748)	(104.570)	(71.713)	(63.080)	(83.090)	(0.100)
Panel C: Lasso-Selected Variables														
W Gives Input on Spending of Her Earnings	-0.057													
	(0.043)													
H Interest (1-4) in W Visiting Natal Village	-0.091***													
	(0.014)													
H Interest (1-4) in W Visiting Market	-0.041***													
	(0.014)													
H Interest (1-4) in W Getting New Saree	-0.037**													
	(0.018)													
HH Makes Decisions on Spending of W Earnings	0.075*													
	(0.046)													
From Yadav Subcaste (=1)	-0.227***													
	(0.046)													
Treat x W More Interested		0.087**	1408.414**	302.061**	268.543**	230.607**	186.980**	23.804	89.352	42.921	41.254	100.237**	122.657**	0.159***
		(0.041)	(653.532)	(133.378)	(104.854)	(97.053)	(92.226)	(37.016)	(60.480)	(68.794)	(49.664)	(48.352)	(52.885)	(0.059)
Treat	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
W More Interested	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Strata Controls	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Predictors of W More Interested	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Treat x Predictors of W More Interested	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523	1344

Notes: This table explores the robustness of our heterogeneity results to controlling for predictors of "W More Interested", the variable defining our main subgroup of interest. Columns (2)-(14) present the interaction effects from Tables 3 and 4, controlling for predictors of "W More Interested" and their interactions with treatment. The predictor in Panel A – "W More Interested in Other Activities Index" – is an index of reported husband opposition in other activities. Specifically, it is an index of three indicators for women reporting greater interest than their husbands at baseline in the women: visiting their natal village, visiting the market, and getting a new saree. The predictors in Panel B are the two variables used to form "W More Interested": women's baseline reports of their own and their husbands' interest in the women's employment. The predictors in Panel C are selected by Lasso from our baseline data; the selected variables are listed as the regressors in column (1) of Panel C. The regressions in columns (2)-(14) include Treat, W More Interested, and strata controls in addition to the predictors and the predictors' interactions with Treat. Standard errors are robust in column (1) and clustered by meeting group in the rest of the columns. * p <0.10, ** p < 0.05, *** p < 0.01.

Table 6: Mechanisms in Household Decision-Making

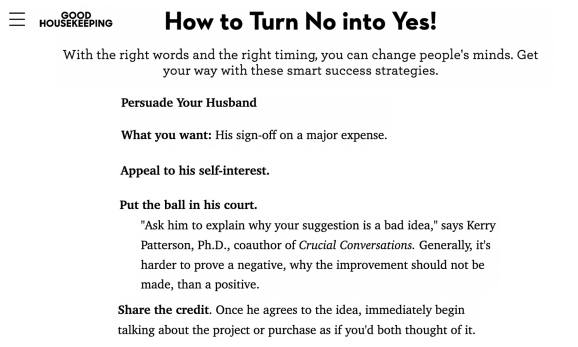
	W More Interested = 1				
	W Interest (1-4) at EL1 (1)	H Interest (1-4) at EL1 (2)	W More Interested at EL1 (3)	W Final Say Index at EL1 (4)	Earnings (Rs.), Dec. (5)
Treat	-0.013	0.199*	-0.110***	-0.036	-663.369***
	(0.089)	(0.120)	(0.042)	(0.074)	(251.852)
W Interest at EL1					-35.954
					(64.108)
H Interest at EL1					118.085**
					(47.612)
Treat x W Interest at EL1					136.508*
					(79.915)
Treat x H Interest at EL1					179.179**
					(84.426)
P-Val: Treat x W Interest = Treat x H Interest					0.742
Strata Controls	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	3.365	2.104	0.625	-0.099	
N	604	603	603	604	603

Notes: This table explores mechanisms driving the labor supply effects in the woman-more-interested subgroup. The sample is restricted to this subgroup. The outcomes in columns (1)-(4) come from EL1. Column (1)'s outcome is women's own interest in working outside the home, measured on a scale of 1 to 4 (1 = very uninterested, 2 = somewhat uninterested, 3 = somewhat interested, and 4 = very interested). Column (2)'s outcome is wives' predictions of their husbands' interest in the wives working outside the home. The outcome in column (3) is an indicator for women's interest being greater than their (predicted) husbands' interest; it is our main heterogeneity variable, just measured at EL1 rather than baseline. The outcome in column (4) is an index of indicators for women reporting having final say over the following decisions: spending on food, spending on clothing, whether to purchase a large household item, and spending of the husband's earnings. A woman is considered as having final say if she said either she alone or she together with other people make the decision. The outcome in column (5) is earnings in the partner firm's program in December, the month when the EL1 survey was conducted. This is the same outcome as in column (1) of Table 4. The regressors "W Interest at EL1" and "H Interest at EL1" in column (5) are the outcomes from columns (1) and (2). Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Online Appendix A: Additional Tables and Figures

Figure A.1: Communication Strategies Recommended to Wives in Popular Culture

(a) Example 1, from Good Housekeeping



GOOD HOUSEKEEPING

How to Turn No into Yes!

With the right words and the right timing, you can change people's minds. Get your way with these smart success strategies.

Persuade Your Husband

What you want: His sign-off on a major expense.

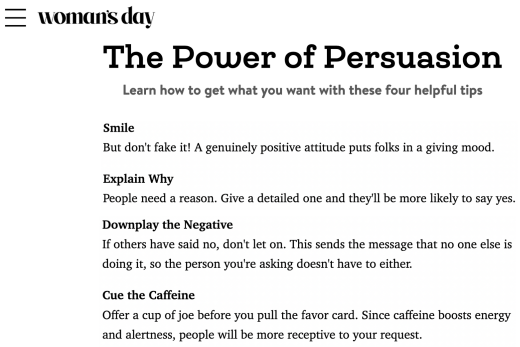
Appeal to his self-interest.

Put the ball in his court.

"Ask him to explain why your suggestion is a bad idea," says Kerry Patterson, Ph.D., coauthor of *Crucial Conversations.* Generally, it's harder to prove a negative, why the improvement should not be made, than a positive.

Share the credit. Once he agrees to the idea, immediately begin talking about the project or purchase as if you'd both thought of it.

(b) Example 2, from Woman's Day



woman's day

The Power of Persuasion

Learn how to get what you want with these four helpful tips

Smile

But don't fake it! A genuinely positive attitude puts folks in a giving mood.

Explain Why

People need a reason. Give a detailed one and they'll be more likely to say yes.

Downplay the Negative

If others have said no, don't let on. This sends the message that no one else is doing it, so the person you're asking doesn't have to either.

Cue the Caffeine

Offer a cup of joe before you pull the favor card. Since caffeine boosts energy and alertness, people will be more receptive to your request.

(c) Example 3, from Ladies' Home Journal



LADIES' HOME JOURNAL | JULY 2005

THE POWER OF EYE CONTACT

Getting people to like you is as easy as looking into their eyes. Women who fix their gaze on the people they talk to are perceived as more likable than those who don't, found a new study from Dartmouth College, in Hanover, New Hampshire. "It tells you that you're more interesting than anything else to that person," explains Malia Mason, Ph.D. candidate and lead author of the study.

That's just the start: Making eye contact also boosts your powers of persuasion. If other people find you likable, says Mason, they're more likely to pay attention and be convinced by what you say. So if you're trying to get your husband to commit to helping with your garage sale, for example, it may be efficient to phone him at work, but Mason says he'll be more likely to lend a hand if you wait till you can talk to him face-to-face. *—Meredith Bodgas*

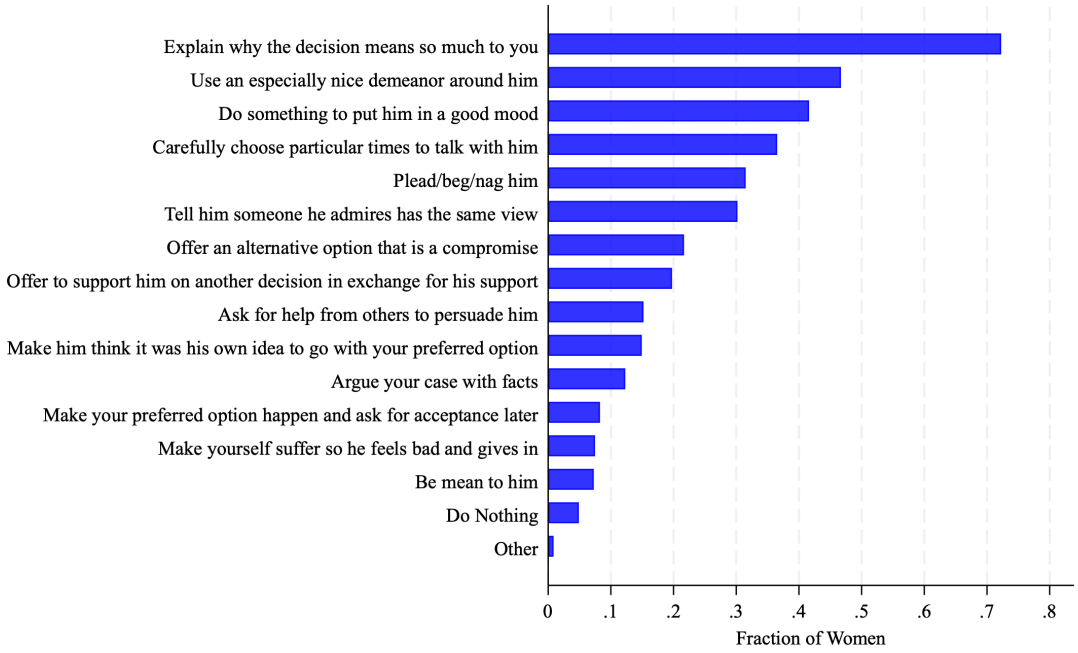
(d) Example 4, from Ladies' Home Journal



Ladies' Home Journal □ *February, 1968*

"HUSBANDESE"—THE NEW LANGUAGE OF INTIMATE PERSUASION BETWEEN HUSBAND AND WIFE □ BY DR. HAIM GINOTT

Figure A.2: Approaches Women Would Take to Change Husbands' Minds



Notes: Data in this figure come from a vignette on the baseline survey which told women about a situation where a wife wanted to do one thing and her husband wanted another, with a randomization determining the topic of disagreement. We then asked if they would take any of several approaches to try to change their husbands' mind were they in the wife's situation. The figure visualizes the number of women who said they would take each approach. The sample size is 1514.

Figure A.3: Study Timeline

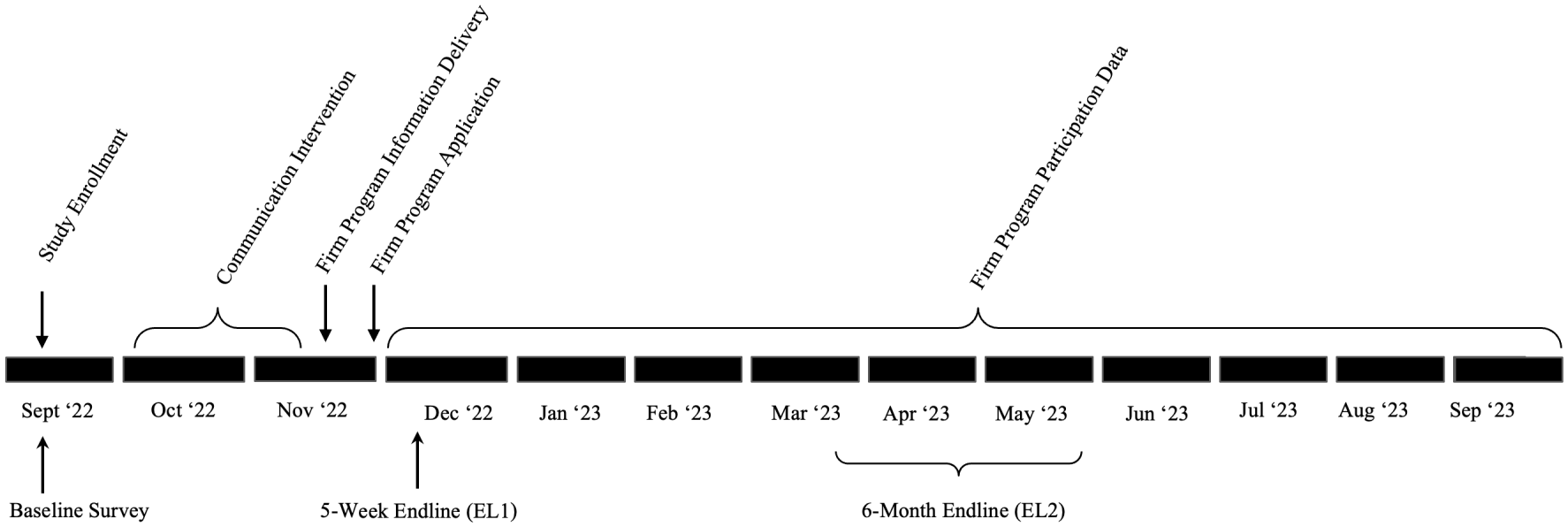


Figure A.4: See-Feel-Want Visual from Communication Curriculum

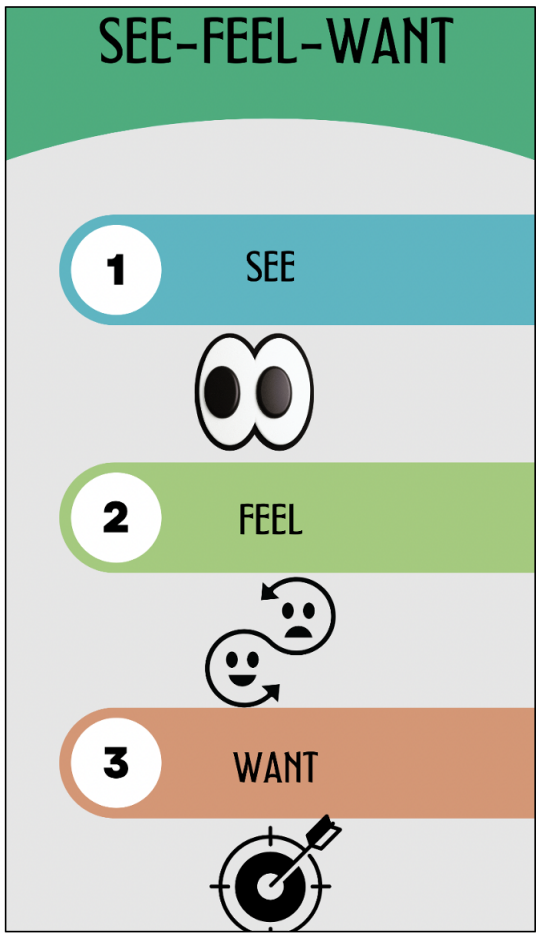


Table A.1: Baseline Characteristics and Balance

	Full Sample			*W Not More Interested*			*W More Interested*		
	C Mean (SD)	T – C (SE)	N	C Mean (SD)	T – C (SE)	N	C Mean (SD)	T – C (SE)	N
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Age	29.717	0.285	1540	29.961	0.056	866	29.364	0.426	657
	(5.834)	(0.295)		(6.007)	(0.370)		(5.531)	(0.473)	
No Education (=1)	0.407	-0.030	1539	0.428	-0.056	865	0.373	-0.002	657
	(0.492)	(0.027)		(0.495)	(0.036)		(0.484)	(0.040)	
From Scheduled Caste or Tribe (=1)	0.368	-0.026	1540	0.304	0.002	866	0.453	-0.077*	657
	(0.483)	(0.038)		(0.460)	(0.041)		(0.499)	(0.046)	
Lives in In-Laws' Village (=1)	0.980	0.007	1540	0.986	-0.008	866	0.972	0.029**	657
	(0.139)	(0.007)		(0.116)	(0.010)		(0.167)	(0.012)	
Mother(-in-law) in HH (=1)	0.420	0.016	1540	0.422	0.042	866	0.418	-0.013	657
	(0.494)	(0.029)		(0.495)	(0.038)		(0.494)	(0.040)	
Father(-in-law) in HH (=1)	0.376	0.019	1540	0.372	0.059	866	0.380	-0.034	657
	(0.485)	(0.028)		(0.484)	(0.037)		(0.486)	(0.039)	
Number of Adults in HH	4.030	0.064	1540	4.169	0.067	866	3.839	0.057	657
	(2.500)	(0.158)		(2.598)	(0.201)		(2.367)	(0.175)	
Number of Children	2.826	-0.001	1526	2.778	0.003	860	2.892	-0.021	650
	(1.444)	(0.077)		(1.459)	(0.101)		(1.426)	(0.115)	
Pregnant (=1)	0.071	0.000	1540	0.064	0.021	866	0.079	-0.024	657
	(0.257)	(0.014)		(0.245)	(0.019)		(0.270)	(0.019)	
Percent Assertive Responses in BL Vignette	52.030	-0.407	1494	49.645	2.166	836	55.323	-3.053	643
	(35.631)	(2.027)		(36.182)	(2.730)		(34.777)	(2.824)	
W Input in Decision-Making Index	0.000	0.031	1540	0.038	0.011	866	-0.036	0.021	657
	(1.000)	(0.054)		(0.967)	(0.067)		(1.031)	(0.076)	
W Final Say in Decision-Making Index	-0.000	0.036	1540	-0.055	0.057	866	0.074	0.016	657
	(1.000)	(0.054)		(0.987)	(0.073)		(1.015)	(0.076)	
W's Interest (1-4) in Employment	3.282	-0.087	1535	2.993	-0.161	866	3.690	-0.015	657
	(1.050)	(0.064)		(1.213)	(0.099)		(0.557)	(0.049)	
H's Interest (1-4) in W Employment (W Predicted)	2.656	-0.106	1526	3.281	-0.164*	866	1.791	0.034	657
	(1.259)	(0.072)		(1.106)	(0.091)		(0.895)	(0.070)	
W More Interested in Employment (=1)	0.419	0.016	1523	0.000	0.000	866	1.000	0.000	657
	(0.494)	(0.027)		(0.000)	(0.000)		(0.000)	(0.000)	
Any Employment (=1)	0.334	-0.018	1527	0.345	-0.004	857	0.325	-0.042	654
	(0.472)	(0.026)		(0.476)	(0.039)		(0.469)	(0.039)	
Visited Natal Village (=1)	0.721	-0.003	1511	0.711	-0.015	851	0.730	0.017	645
	(0.449)	(0.028)		(0.454)	(0.033)		(0.445)	(0.038)	
Visited Market (=1)	0.694	0.018	1534	0.665	0.035	863	0.731	-0.000	655
	(0.461)	(0.026)		(0.472)	(0.032)		(0.444)	(0.039)	
Got New Saree (=1)	0.404	0.002	1537	0.406	0.012	864	0.396	0.007	657
	(0.491)	(0.027)		(0.492)	(0.035)		(0.490)	(0.042)	
Women's Activities Index	-0.000	0.002	1538	-0.025	0.031	865	0.029	-0.015	657
	(1.000)	(0.054)		(1.040)	(0.074)		(0.946)	(0.076)	
F-Test P-Val		0.712			0.294			0.915	

Notes: Data in this table come from the baseline surveys. Column (1) presents the means and standard deviations of given baseline variables in the control group. Column (2) presents the coefficients and standard errors from regressions of each baseline variable on a treatment indicator. The regressions include strata controls and cluster standard errors by meeting group. The sample size for each regression is in column (3). The final row presents the p-value for joint significance of all baseline variables, from a regression of treatment on the baseline variables and strata controls, with standard errors clustered by meeting group. The same analyses in the subgroup of women who were less or equally interested in their employment than their husbands are in columns (4)-(6), while the corresponding analyses for the woman-more-interested subgroup are in columns (7)-(9). * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.2: Compliance and Attrition

	Attended Any Intervention Session (=1)		N Intervention Sessions Attended (0-6)		Firm Program Information Delivered (=1)		W Surveyed at EL1 (=1)		W Surveyed at EL2 (=1)		H Surveyed at EL2 (=1)		Couple Played Games (=1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Treat	-0.001	-0.004	0.019	0.015	0.035**	0.029	0.007	0.003	-0.014	0.009	-0.019	-0.013	-0.042	-0.030
	(0.017)	(0.022)	(0.108)	(0.142)	(0.015)	(0.020)	(0.016)	(0.021)	(0.019)	(0.024)	(0.026)	(0.030)	(0.026)	(0.033)
W More Interested		0.005		0.054		0.008		0.003		0.023		-0.038		-0.003
		(0.021)		(0.141)		(0.020)		(0.023)		(0.021)		(0.032)		(0.035)
Treat x W More Interested		0.003		0.015		0.019		0.012		-0.052*		-0.004		-0.024
		(0.031)		(0.206)		(0.029)		(0.029)		(0.031)		(0.045)		(0.049)
P-Val: Treat + Treat x W More = 0		0.981		0.851		0.029**		0.489		0.100		0.662		0.170
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	0.901	0.902	4.607	4.596	0.882	0.879	0.909	0.909	0.882	0.870	0.745	0.753	0.723	0.728
N	1540	1523	1540	1523	1540	1523	1540	1523	1540	1523	1540	1523	1540	1523

Notes: The outcome in columns (1) and (2) is an indicator for women attending at least one of their six assigned treatment/control sessions. The outcome in columns (3) and (4) is the number of assigned sessions attended, out of a total of six sessions. The outcome in columns (5) and (6) is an indicator for the information about the partner firm's program being successfully delivered to women. The outcomes in columns (7)-(10) are indicators for women being surveyed at five weeks (EL1) and six months (EL2). The outcome in columns (11) and (12) is an indicator for husbands being surveyed at six months (EL2). The outcome in columns (13) and (14) is an indicator for the couple completing the lab-in-the-field games. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.3: Effects on Women's Communication at EL1, by Subgroup

	Knowledge of See-Feel-Want Statement				Use of Assertive Communication					Other Communication Styles			
	% Parts Known (1)	Knows See (=1) (2)	Knows Feel (=1) (3)	Knows Want (=1) (4)	% Components Used (5)	Summarize Situation (=1) (6)	Describe Emotions (=1) (7)	Tell Him What (=1) (8)	Tell Him Why (=1) (9)	Initiate (=1) (10)	Aggressive (=1) (11)	Passive (=1) (12)	Negotiation (=1) (13)
Treat	30.155***	0.307***	0.304***	0.294***	3.842*	0.046	0.044	0.006	0.058	0.026	-0.002	-0.049	0.038*
	(2.439)	(0.027)	(0.027)	(0.029)	(2.123)	(0.037)	(0.032)	(0.037)	(0.038)	(0.023)	(0.013)	(0.032)	(0.022)
W More Interested	0.824	0.001	0.003	0.021	2.042	0.010	0.021	0.033	0.018	-0.020	0.010	-0.027	0.018
	(1.198)	(0.013)	(0.013)	(0.018)	(2.159)	(0.041)	(0.031)	(0.042)	(0.042)	(0.024)	(0.012)	(0.032)	(0.022)
Treat x W More Interested	-0.549	-0.018	-0.009	0.010	2.181	0.055	-0.015	-0.019	0.067	-0.000	-0.006	0.007	-0.035
	(3.373)	(0.038)	(0.038)	(0.041)	(3.000)	(0.054)	(0.050)	(0.054)	(0.057)	(0.033)	(0.017)	(0.045)	(0.033)
P-Val: Treat + Treat x W More = 0	0.000***	0.000***	0.000***	0.000***	0.008***	0.011**	0.444	0.752	0.005***	0.334	0.577	0.212	0.906
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	3.434	0.025	0.025	0.053	48.038	0.580	0.241	0.570	0.532	0.879	0.025	0.281	0.099
N	1392	1392	1392	1392	1386	1386	1386	1386	1386	1388	1386	1386	1386

Notes: This table uses the same outcomes as Tables 1 and 2, but presents effects by subgroup. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.4: Additional Analyses of Communication at EL1

	Other Category Selected (=1), Vignette	W Input Index
	(1)	(2)
Treat	0.027*	-0.037
	(0.015)	(0.062)
Strata Controls	Yes	Yes
Omitted Group Mean	0.068	-0.000
N	1400	1407

Notes: Both outcomes are from EL1. The outcome in column (1) is from the vignette question asking women what they would say to their husbands (see Section 6.1 for details on the vignette). Data are pooled across vignette topic. The outcome is an indicator for providing a response which was recorded in the "other" category. The outcome in column (2) is the women's input index, an index of indicators for women reporting they give input in the following household decisions: spending of the husband's earnings, whether to purchase large household items, spending on clothing, and spending on food. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.5: Effects on Women's Psychology and Gender Attitudes at EL1

	GSE Index	Happiness (1-4)	Gender Attitudes				
			Progressive Attitudes Index	W Work OK (=1)	W Different Opinion OK (=1)	H Know Better (=1)	H Should Earn More (=1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treat	0.013	-0.036	-0.009	0.005	-0.015	-0.020	0.010
	(0.059)	(0.039)	(0.050)	(0.016)	(0.015)	(0.026)	(0.018)
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	0.000	3.439	-0.000	0.912	0.102	0.555	0.855
N	1406	1405	1407	1407	1403	1398	1405

Notes: All outcomes are from EL1. The outcome in column (1) is an index of items from the Generalized Self-Efficacy Scale (Schwarzer and Jerusalem, 1995), where each component is a response from 1-4 to an item (1 - No, completely; 2 - No, somewhat; 3 - Yes, somewhat; 4 - Yes, completely). Each women randomly received either items 1, 2, 4, 7, 8 or 3, 5, 6, 9, 10 from the following list : 1) *Can you always manage to solve difficult problems if you try hard enough?*, 2) *If someone opposes you, Can you find some way to get what you want?*, 3) *Is it easy for you to stick to and accomplish your goals?*, 4) *Are you confident that you could deal efficiently with unexpected events?*, 5) *Do you know how to handle unforeseen situations by using your resourcefulness?*, 6) *Can you solve most problems if you invest the necessary effort?*, 7) *Can you remain calm when facing difficulties by relying on your coping abilities?*, 8) *When you are confronted with a problem, can you usually find several solutions?*, 9) *If you are in trouble, can you usually think of a solution?*, and 10) *Can you usually handle whatever comes your way?*. The outcome in column (2) is women's responses to the question: *Overall in life, would you say you are: 1 - Not at all happy, 2 - Not very happy, 3 - Rather happy, 4 - Very happy.* The outcome in column (3) is an index of responses to the following questions concerning gender attitudes: *Is it alright if women go out for work to earn money?*, *Is it alright for women to have different opinions than their husbands?*, *Husbands generally know better than wives about what is best for the family?*, and *A husband should earn more than his wife?*. For each question, an indicator is created for respondents responding 'Yes'. For the last two questions, this indicator is multiplied by -1 before indexing, as a response of 'Yes' indicates a less progressive attitude. The outcomes in columns (4)-(7) are the indicators for responding 'Yes'. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.6: Effects on Earnings from Partner Firm, Alternative Imputation of Missing Earnings

	Earnings from Firm (Rs.)										
	Total	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Treat	-294.427	-45.184	-61.523	-62.820	-42.351	-7.429	-32.185	-11.818	17.104	-21.045	-27.176
	(395.257)	(90.798)	(69.832)	(66.330)	(63.599)	(20.370)	(35.973)	(28.238)	(26.996)	(22.245)	(35.443)
W More Interested	-153.749	-93.628	-62.187	-56.505	-24.202	33.712	2.337	42.499	40.777	-1.075	-35.478
	(428.674)	(91.661)	(71.120)	(66.138)	(63.845)	(25.724)	(40.300)	(45.159)	(36.129)	(34.273)	(34.372)
Treat x W More Interested	1162.073**	260.495**	233.074**	199.455**	157.251*	13.621	76.545	22.532	29.851	56.392	112.857**
	(564.891)	(121.966)	(97.516)	(88.644)	(87.450)	(36.182)	(52.719)	(50.360)	(44.089)	(40.494)	(49.199)
P-Val: Treat + Treat x W More = 0	0.072*	0.037**	0.042**	0.060*	0.109	0.839	0.274	0.807	0.238	0.290	0.033**
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	1649.010	399.929	304.424	279.595	247.061	46.443	94.282	61.820	52.599	58.244	104.614
N	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523

Notes: This table replicates the analyses of earnings from the partner firm in Tables 3 and 4, except the earnings of weavers with missing earnings are imputed with 0. See footnote 19 in the main text for more details on missing earnings. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.7: Effects on Extensive Margin of Participation in Firm's Program

	Ever Participated in Partner Firm's Program (=1)										
	Any Month	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Treat	-0.009	-0.006	-0.016	-0.021	-0.017	-0.013	-0.018	-0.013	0.003	-0.008	-0.013
	(0.024)	(0.022)	(0.020)	(0.020)	(0.019)	(0.015)	(0.016)	(0.016)	(0.014)	(0.014)	(0.015)
W More Interested	-0.018	-0.020	-0.018	-0.018	-0.012	0.021	0.011	0.017	0.010	-0.006	-0.013
	(0.025)	(0.023)	(0.021)	(0.021)	(0.019)	(0.018)	(0.018)	(0.019)	(0.015)	(0.015)	(0.015)
Treat x W More Interested	0.042	0.047	0.062**	0.060**	0.053**	0.007	0.015	0.015	0.021	0.031*	0.040**
	(0.031)	(0.030)	(0.028)	(0.028)	(0.026)	(0.021)	(0.021)	(0.022)	(0.019)	(0.019)	(0.018)
P-Val: Treat + Treat x W More = 0	0.202	0.102	0.061*	0.102	0.095*	0.756	0.887	0.898	0.127	0.118	0.070*
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	0.107	0.098	0.089	0.089	0.080	0.043	0.048	0.050	0.034	0.041	0.046
N	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523	1523

Notes: The outcomes are indicators for the earnings outcomes in Tables 3 and 4 being positive. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.8: Differences in Partner Firm Earnings Among Women with Positive Earnings

	Earnings from Firm (Rs.), if Positive										
	Total	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Treat	-1640.622	-201.427	-116.610	76.818	188.594	-297.219**	-408.991	-199.346	39.106	186.956	271.272
	(1792.990)	(200.754)	(199.062)	(246.027)	(215.251)	(134.278)	(263.983)	(204.109)	(217.923)	(201.159)	(280.392)
W More Interested	1624.101	-462.401	-1.002	114.425	295.890	-15.071	-238.619	18.141	95.211	313.569	273.051
	(2089.753)	(285.145)	(144.945)	(252.884)	(210.447)	(149.961)	(174.625)	(217.861)	(254.628)	(238.282)	(336.599)
Treat x W More Interested	4129.080	693.348**	247.170	-43.148	-349.133	252.433	1024.695**	536.863	-58.574	-14.669	185.585
	(2894.386)	(341.614)	(280.570)	(394.831)	(339.740)	(298.177)	(387.942)	(337.590)	(325.077)	(226.033)	(374.662)
P-Val: Treat + Treat x W More = 0	0.288	0.078*	0.548	0.903	0.542	0.877	0.059*	0.306	0.948	0.378	0.117
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	16741.686	4354.469	3418.910	3140.064	3170.071	1070.632	2251.397	2303.675	1823.870	2299.074	2291.050
N	152	143	125	121	112	66	67	75	57	55	57

Notes: This table replicates the analyses of earnings from the partner firm in Tables 3 and 4, except each column's sample is restricted to women for whom the outcome is positive. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.9: Effects on Women's Labor Supply Among Women Informed About Program

	Applied (=1)	Earnings from Firm (Rs.)											Any Emp. (=1)
		Total	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	EL2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Treat	-0.038	-430.284	-74.534	-80.978	-80.786	-62.092	-9.490	-48.471	-37.255	14.417	-22.055	-29.039	-0.044
	(0.035)	(466.589)	(103.820)	(77.268)	(73.663)	(70.219)	(22.373)	(40.734)	(39.356)	(32.166)	(34.959)	(39.265)	(0.042)
W More Interested	-0.050	-280.966	-167.699	-87.027	-81.064	-51.462	34.474	2.832	69.756	47.464	-11.487	-36.752	-0.035
	(0.031)	(512.883)	(105.500)	(79.494)	(74.240)	(71.592)	(28.757)	(47.974)	(59.325)	(42.181)	(41.702)	(38.401)	(0.047)
Treat x W More Interested	0.103**	1374.200**	314.589**	263.101**	227.981**	187.278*	19.896	88.272	39.834	30.120	85.225*	117.904**	0.127**
	(0.044)	(667.309)	(136.694)	(107.830)	(98.699)	(97.165)	(40.039)	(60.954)	(69.291)	(50.884)	(49.794)	(54.070)	(0.061)
P-Val: Treat + Treat x W More = 0	0.083*	0.090*	0.029**	0.043**	0.058*	0.104	0.756	0.401	0.966	0.312	0.117	0.041**	0.075*
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	0.231	2018.733	486.343	346.331	318.084	288.188	51.709	117.737	124.840	71.060	100.598	113.842	0.423
N	1371	1371	1371	1371	1371	1371	1371	1371	1371	1371	1371	1371	1239

Notes: This table replicates the analyses of earnings from the partner firm in Tables 3 and 4, but restricts to the sample of women who were successfully given information about the partner firm's program (i.e. restricts to women with a value of one for the outcome in columns (5) and (6) of Table A.2). Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.10: Heterogeneity by Age

	Applied (=1)	Earnings from Firm (Rs.)											Any Emp. (=1)	Women's Act. Index	
		Total	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	EL2	EL1	EL2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Treat	0.031	214.461	90.146	16.104	2.957	36.633	4.681	-5.344	-24.372	24.783	22.096	46.775	-0.018	-0.145*	-0.057
	(0.032)	(389.339)	(83.287)	(62.011)	(56.660)	(54.769)	(21.387)	(33.564)	(38.862)	(29.814)	(27.310)	(30.115)	(0.038)	(0.078)	(0.076)
Above Median Age	0.017	727.290	125.877	73.546	77.258	122.255*	35.687	69.735	36.171	25.749	63.679*	97.334**	0.074*	0.072	-0.019
	(0.027)	(456.367)	(96.287)	(73.341)	(69.260)	(68.731)	(24.809)	(43.562)	(42.766)	(28.364)	(35.557)	(42.055)	(0.043)	(0.085)	(0.078)
Treat x Above Median Age	-0.046	-123.251	-55.615	45.048	38.347	-42.553	-13.082	-16.137	3.047	8.625	-24.454	-66.476	0.038	0.076	0.053
	(0.042)	(661.658)	(141.291)	(107.022)	(98.952)	(97.300)	(38.130)	(62.038)	(60.152)	(44.357)	(48.461)	(59.068)	(0.056)	(0.109)	(0.110)
P-Val: Treat + Treat x Above = 0	0.700	0.877	0.783	0.530	0.641	0.945	0.786	0.679	0.676	0.390	0.957	0.706	0.646	0.410	0.962
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	0.185	1352.836	310.769	235.220	211.989	178.599	43.586	79.199	123.922	65.801	58.628	45.123	0.381	-0.028	0.014
N	1540	1540	1540	1540	1540	1540	1540	1540	1540	1540	1540	1540	1360	1407	1360

Notes: The outcomes in columns (1)-(13) are the same as in Tables 3 and 4. The outcomes in columns (14) and (15) are indices of indicators for women reporting at EL1 and EL2, respectively, that in the previous three months they have: worked outside the home, visited their natal village, visited the market, or gotten a new saree. "Above Median Age" is an indicator for women being above the median age in our sample (i.e. above 30 years old). Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.11: Effects on Women Doing Various Activities

	Women's Activities Index		Any Employment, Last 3 Months (=1)		Visited Natal Village, Last 3 Months (=1)		Visited Market, Last 3 Months (=1)		Got New Saree, Last 3 Months (=1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Endline 1										
Treat	-0.107*	-0.112*	0.003	-0.005	-0.063*	-0.063	-0.029	-0.034	-0.050*	-0.070**
	(0.060)	(0.060)	(0.030)	(0.042)	(0.036)	(0.046)	(0.024)	(0.028)	(0.027)	(0.031)
W More Interested in Activities Index		-0.008								
		(0.036)								
Treat x W More Interested in Activities Index		0.009								
		(0.051)								
W More Interested in Activity				-0.009		0.043		-0.025		-0.077*
				(0.042)		(0.046)		(0.039)		(0.045)
Treat x W More Interested in Activity				0.016		0.002		0.012		0.076
				(0.055)		(0.065)		(0.052)		(0.060)
P-Val: Treat + Treat x W More = 0				0.787		0.229		0.625		0.902
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	-0.000	-0.000	0.367	0.379	0.575	0.562	0.821	0.825	0.417	0.438
N	1407	1403	1407	1393	878	874	1407	1391	1404	1394
Panel B: Endline 2										
Treat	-0.034	-0.032	0.004	-0.055	-0.016	-0.026	0.007	0.009	-0.035	-0.023
	(0.058)	(0.058)	(0.030)	(0.040)	(0.028)	(0.038)	(0.019)	(0.020)	(0.030)	(0.034)
W More Interested in Activities Index		-0.055								
		(0.039)								
Treat x W More Interested in Activities Index		0.004								
		(0.053)								
W More Interested in Activity				-0.039		-0.013		-0.048		-0.027
				(0.046)		(0.039)		(0.030)		(0.044)
Treat x W More Interested in Activity				0.128**		0.020		0.008		-0.038
				(0.059)		(0.050)		(0.040)		(0.060)
P-Val: Treat + Treat x W More = 0				0.099*		0.872		0.651		0.255
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	-0.000	-0.000	0.408	0.430	0.635	0.638	0.881	0.893	0.579	0.586
N	1360	1356	1360	1344	1340	1331	1359	1345	1359	1349

Notes: The outcome in columns (1) and (2) is an index of indicators for women reporting that in the previous three months they have: worked outside the home, visited their natal village, visited the market, or gotten a new saree. The outcomes for columns (3)-(10) are the four indicators that compose this index. "W More Interested in Activities Index" is an index of indicators for women reporting at baseline they were more interested than their husbands in the women doing each of the four activities. "W More Interested in Activity" is an indicator for women reporting more interest in the given outcome activity than their husbands at baseline (i.e. the components of the "W More Interested in Activities Index"). Panel A presents data from EL1, and Panel B presents data from EL2. A programming error in the first endline survey resulted in the natal village question not being asked on initially-fielded versions of that survey, hence we only observe that outcome at EL1 for 57% of the sample. There is a treatment-control difference in whether this outcome was observed (6.3 p.p., $p = 0.084$), but the effects on the EL1 index of activities look similar if we exclude the natal village outcome from the index. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.12: Effects in Lab-in-the-Field Games

	N Tokens W Ended With
	(1)
Treat	-0.023
	(0.187)
Pre-Play Communication	0.280*
	(0.160)
Doubling	1.526***
	(0.239)
Treat x Pre-Play Communication	0.010
	(0.243)
Treat x Doubling	0.406
	(0.355)
Pre-Play Communication x Doubling	0.112
	(0.346)
Treat x Pre-Play Communication x Doubling	-0.385
	(0.506)
P-Val: Treat + Treat x Communication = 0	0.942
P-Val: Treat + Treat x Doubling = 0	0.200
P-Val: Treat + Treat x Communication + Treat x Doubling + Treat x Communication x Doubling	0.978
Strata Controls	Yes
Omitted Group Mean	5.170
N	2164

Notes: See Section 6.3 for details on the lab-in-the-field games. The data in this table are at the game × couple level. The outcome is the number of tokens the woman ended the game with. Pre-play communication is an indicator for the couple being able to communicate before the husband made his decision in the game. Doubling is an indicator for the game being the trust game, in which any tokens sent to the wife were doubled and she could then send back tokens to her husband. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.13: Additional Mechanisms Analyses

	Full Sample	*W More Interested = 1*			
	EL2-EL1 Change in W Interest (1-4)	W Knows H Interest (=1) at EL2	H Knows W Interest (=1) at EL2	Earnings (Rs.), Dec.	Earnings (Rs.), Dec.
	(1)	(2)	(3)	(4)	(5)
Control, W Less or Equally Interested	-0.138**				
	(0.069)				
Control, W More Interested	-0.201***				
	(0.069)				
Treat, W Less or Equally Interested	-0.109*				
	(0.062)				
Treat, W More Interested	-0.132*				
	(0.072)				
Treat		0.042	0.058	145.391	242.275**
		(0.051)	(0.048)	(115.956)	(111.722)
Years Married Above Median				151.381	
				(118.121)	
Treat x Years Married Above Median				119.294	
				(199.240)	
Any Emp. at BL					170.550
					(156.183)
Treat x Any Emp. at BL					-67.988
					(231.035)
P-Val: Treat + Treat x Covariate = 0				0.135	0.415
Strata Controls	No	Yes	Yes	Yes	Yes
Omitted Group Mean		0.427	0.321	200.000	211.733
N	1277	446	444	642	654

Notes: The outcome in column (1) is women's reported interest in working at EL2 minus their reported interest in working at EL1. Interest is on a scale of 1 to 4 (1 = very uninterested, 2 = somewhat uninterested, 3 = somewhat interested, and 4 = very interested). The regressors in column (1) are indicators for each of the four possible combinations of Treat and W More Interested. This regression does not include an intercept. Columns (2)-(5) restrict the sample to the woman-more-interested subgroup. Column (2)'s outcome is an indicator for wives correctly predicting their husbands' interest in the women's employment at EL2, while column (3)'s outcome is an indicator for husbands correctly predicting their wives' interest at EL2. The outcome in columns (4) and (5) is earnings in the partner firm's program in December, the month when the EL1 survey was conducted. This is the same outcome as in column (1) of Table 4. "Years Married Above Median" is an indicator for being married an above median number of years (i.e. married more than 12 years). "Any Emp. at BL" is an indicator for women working for income off their households' farms in the three months preceding the baseline survey; it is the same variable as the outcome in column (4) of Table 3, but assessed at baseline rather than EL2. Standard errors are robust in column (1) and clustered by meeting group in the rest of the columns. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.14: Did Women Give Up Other Activities to Compensate for Work?

	In Last 3 Months, at Endline 2		
	Visited Natal Village (=1)	Visited Market (=1)	Got New Saree (=1)
	(1)	(2)	(3)
Treat	-0.016	0.010	-0.005
	(0.037)	(0.024)	(0.038)
W More Interested (in Work)	-0.029	-0.014	-0.064
	(0.037)	(0.027)	(0.043)
Treat x W More Interested (in Work)	-0.000	-0.019	-0.055
	(0.052)	(0.038)	(0.059)
P-Val: Treat + Treat x W More = 0	0.690	0.754	0.187
Strata Controls	Yes	Yes	Yes
Omitted Group Mean	0.647	0.887	0.598
N	1325	1343	1343

Notes: The outcomes are from women's EL2 surveys, the endline when we see significant effects on employment. They are indicators for women reporting they have performed the following activities in the last 3 months: visiting their natal (place of birth) village/city, visiting the local market, and getting a new saree. These activities were selected as activities that husbands and wives in this setting often disagree about, with wives generally being more interested than their husbands in the wives doing the activities. The "W More Interested (in Work)" is the usual heterogeneity variable, i.e. the indicator for women reporting greater interest in their employment than their husbands at baseline. Standard errors are clustered by meeting group. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.15: Effects on Women's Communication at EL2

	Knowledge of See-Feel-Want Statement				Use of Assertive Communication					Other Communication Styles			
	% Parts Known	Knows See (=1)	Knows Feel (=1)	Knows Want (=1)	% Components Used	Summarize Situation (=1)	Describe Emotions (=1)	Tell Him What (=1)	Tell Him Why (=1)	Initiate (=1)	Aggressive (=1)	Passive (=1)	Negotiation (=1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Treat	12.566***	0.090***	0.157***	0.129***	2.645*	0.014	0.046*	0.016	0.030	0.009	0.013	-0.017	0.014
	(1.769)	(0.017)	(0.022)	(0.023)	(1.479)	(0.027)	(0.026)	(0.025)	(0.022)	(0.013)	(0.010)	(0.025)	(0.014)
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	5.856	0.035	0.039	0.102	61.186	0.712	0.260	0.737	0.739	0.924	0.023	0.242	0.044
N	1352	1352	1352	1352	1345	1345	1345	1345	1345	1346	1345	1345	1345

Notes: The outcomes are the same as in Tables 1 and 2, except they come from EL2 rather than EL1. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Table A.16: Effects on Husbands' Reports of Women's Communication at EL2

	Use of Assertive Communication					Other Communication Styles			
	% Components Used (1)	Summarize Situation (=1) (2)	Describe Emotions (=1) (3)	Tell Him What (=1) (4)	Tell Him Why (=1) (5)	Initiate (=1) (6)	Aggressive (=1) (7)	Passive (=1) (8)	Negotiation (=1) (9)
Treat	0.827	0.026	0.004	-0.011	0.014	-0.003	-0.005	0.023	-0.030**
	(1.527)	(0.028)	(0.026)	(0.024)	(0.027)	(0.016)	(0.008)	(0.021)	(0.012)
Strata Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Omitted Group Mean	59.712	0.649	0.216	0.784	0.739	0.923	0.018	0.137	0.059
N	1115	1115	1115	1115	1115	1119	1115	1115	1115

Notes: This table uses the same outcomes as columns (5)-(13) of Table A.15, but instead of using women's responses, uses husbands' predictions of their wives' communication styles. Standard errors are clustered by meeting group. * p <0.10, ** p < 0.05, *** p < 0.01.

Online Appendix B: Data Appendix

B.1 Pre-Registration

We registered our experiment on the AEA RCT Registry (AEARCTR-0010192) on October 17, 2022, shortly after the intervention had begun but before any outcomes data had been collected. We revised the registry to flesh out the secondary outcomes on November 30, 2022, which was before any secondary outcomes, in either version of the registry, had been collected. We follow closely the outcomes and heterogeneity analyses specified in the registration, making just four minor deviations.

1. We specified presenting effects on any wages women earned (not just in the firm's program). We asked about income at EL1 but removed the question from EL2 following reports from surveyors of women responding imprecisely or feeling uncomfortable responding. We therefore do not present effects on this outcome, focusing only on earnings in the partner firm's program.

2. We specified measuring interest in employment using indices of interest in employment overall and in the firm's program, but only use the former for two reasons. First, our questions about interest in the firm's program asked women to recall their and their husbands' *initial* interest in the program, when they first heard about it; effects on these outcomes would in theory miss any effects of persuasion. Second, the questions about interest in the firm's program were not symmetric for women and men, asking how interested women were and whether men were more or less interested than women.

3. We specified considering effects on an index of women's interest in employment, visiting their natal village, visiting the market, and getting a new saree to understand mechanisms driving effects on the index of these outcomes. Since we do not ultimately find many effects on the index of these outcomes (Table A.11), we do not present effects on this index of interest.

4. We consider gender attitudes about household decision-making in addition to attitudes about women's employment, as the treatment could have shifted attitudes about decision-making.

B.2 Vignettes to Measure Communication Style

The script for the vignettes used to measure communication at EL1 read as follows

Now I will tell you a story about a household. This is an imaginary household but I would like you to pretend it actually exists.

The household lives in another village nearby. The household consists of a man named Sanjay, his wife Rekha, and their children. Sanjay is 35 years old and Rekha is 30. They have four children.

They are making a decision about whether Rekha should do [X]. Rekha wants to do [X] but Sanjay doesn't think she should. (X was randomized to be work outside the home or visit her natal village.)

Imagine you were Rekha in this situation. I know you may not want the same thing as Rekha does in this situation, but I want you to imagine you did. Likewise, your husband may not want the same thing as Sanjay in this situation, but I want you to imagine he did.

I'm going to ask you some questions about what you would do if you were in Rekha's situation. When you answer these questions, please tell me what you think you would actually do, not what you think you should do. I know you might not be sure what you would do in Rekha's situation. If you're unsure, just tell me what you think you'd be most likely to do.

To assess whether women would initiate conversation, they were first asked: *Would you bring up the topic with your husband or would you wait for him to bring it up?* Then, to assess what form of communication women would use, they were asked: *Suppose you brought up the topic with your husband. What would you say to him? (Surveyor: do not read options aloud).* The answer options for this question, along with their classification into particular styles of communication are below. The options missing classification cannot be classified neatly into formal styles of communication but were included as they were common responses. As the prompt for this question suggests, surveyors did not read these answer options aloud. Multiple options could be selected.

- Summarize the situation / decision [**Assertive**]
- Describe the emotions you are feeling about the situation (for example, "I feel disappointed / worried" or "I feel excited / happy") [**Assertive**]
- Tell him what you want to do [**Assertive**]
- Tell him why you want to do it [**Assertive**]

- Ask him for permission to do what you want
- Ask him what he thinks should be done
- Tell him you will do whatever he wants [**Passive**]
- Tell him he's wrong / unreasonable / stupid / never lets you get what you want [**Aggressive**]
- Describe the emotions he is making you feel (for example, "you make me feel angry / sad / unhappy")
- Offer a compromise (for example, offer to go with an option in between what you two want in this decision, or offer to go with what he wants in another decision in exchange for going with what you want in this decision) [**Negotiation**]
- Plead / beg
- Other