

DISCUSSION PAPER SERIES

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The Role of Social Expectations and
Reference Networks**

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ABSTRACT

Social Norms and Female Labor Force Participation in Bangladesh: The Role of Social Expectations and Reference Networks*

About 50% of Bangladesh's female youth working-age population is not in employment, education, or training (NEET). Reducing this number is an important policy goal. However, there is a broad consensus that pervasive gender norms hamper this goal in Bangladesh and other countries from the Global South. In this study, we analyze the social basis of support for young working women. It departs from a theoretical understanding of norms as conditional upon expectations in one's reference network. Based on vignette experiments, we show that manipulating expectations about acceptance of female employment by others influences personal support for women taking up work. Moreover, we address the question of whose views matter. Manipulating the expectation that fathers (or husbands in the case of married NEETs) support the employment of their daughters (wives) has a particularly strong effect on respondents' support. In contrast, the stance of religious authorities and peers has surprisingly little relevance. Our evidence suggests that (expectations about) traditional views of fathers and husbands regarding the role of females are a key obstacle to a higher labor force participation of young women in Bangladesh.

JEL Classification: D91, J22, J16, Z10

Keywords: Bangladesh, female labor force participation, gender norms, social expectations, survey experiments

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1 Introduction

For economical and normative reasons, increasing female labor force participation is an important policy goal in many countries of the Global South. There is by now a consensus that deep-seated social norms are one key obstacle to this goal (Alam et al. 2018, Alesina et al. 2013, Antecol 2000, Dildar 2015, Giuliano 2020, Jayachandran 2021). Cultural and religious views that stigmatize working women are often found to create powerful barriers for taking up jobs. While this is a worldwide phenomenon (Bayanpourtehrani & Sylwester 2013, Besamusca et al. 2015, Cavapozzi et al. 2021, Fernández 2013), patriarchal cultures tend to be more prevalent at lower levels of economic development (Pieters & Klasen 2020). The link between gender norms and female labor force participation, hence, has a particular urgency in the Global South.

Beyond the generic insight that gender norms matter, emerging literature seeks to unearth the social processes underpinning their effects on female labor force participation. One fruitful avenue has been distinguishing what individuals *personally* think of female employment from what they believe the *majority* in their culture thinks of this issue (Aloud et al. 2020, Bursztyn et al. 2020). The broader point is that one should, following Bicchieri (2014), understand social norms as relational and conditional. Personal preferences, and particularly their behavioral implications, do not exist in a vacuum. They are conditional upon expectations about the values and behaviors of other members of one's reference network (Fehr & Schurtenberger 2018, Gächter et al. 2017).¹

This distinction between personal views and societal expectations is important from a theoretical as well as a policy perspective. Gender norms may in fact be less ingrained than often assumed. Rather than deep-seated preferences, they might partly reflect an adjustment to more malleable perceptions of what is the current societal consensus. If men, for example, overestimate the stigma attached to female employment, correcting these false expectations can boost support for working women (Bursztyn et al. 2020). Conversely, women who learn that their peers are more likely than expected

¹Bicchieri et al.'s (2014) framework allows us to distinguish the impact of *empirical* expectations (beliefs about others' behaviors) and *normative* expectations (beliefs about others' approval of behaviors) on personal behavior and belief. Crucially, not everybody's behavior or approval matters equally. Bicchieri (2014) argues that each person has a decision-specific "reference network", i.e., a "range of people whom we care about when making particular decisions" (p. 14). The framework hence provides a suitable conceptual toolkit to capture our interest in social influences on support for working women. Readers should note that substantively similar arguments are often expressed with different labels in related research, e.g. "second-order beliefs" (Aloud et al. 2020), "pluralistic ignorance" (Bursztyn et al. 2020), or "social information" (Coffman et al. 2017). Examples from the broader literature include the notions of "preference falsification" (Kuran 1995) and "isomorphism" (DiMaggio & Powell 1983). Irrespective of the label, the core argument is that the social efficacy of norms is conditional upon perceived empirical patterns and their perceived legitimacy.

to take up work, adjust their own plans accordingly (Aloud et al. 2020). Expectations, hence, seem to be more responsive to political communication than values at the core of one's identity. This provides policy-makers with more leeway to overcome cultural barriers to female employment than previously thought.

Against this background, we investigate whether and how social expectations influence support for female labor force participation in Bangladesh. In doing so, we address a question that has received scant attention, at best, in existing research: *whose norms matter?* If the distinction between personal preferences and social expectations carries significance, the core question is which actors are the decisive reference points for preference adjustment in a specific culture. In societies experiencing social change, religious authorities, fathers, husbands and peers of young women probably send different social cues to structure one's expectations and preferences. So far, we know very little about which of these sources of social information is most influential in support of female employment. Again, the answer has policy implications. It can inform, for example, public campaigns to foster female employment regarding the question of *who* exactly should be targeted with *what* content.

Our empirical contribution is based on an original survey of households in Bangladesh with at least one female member aged 15-29 and not in employment, education, or training (NEET).² Bangladesh is a relevant case. Despite rapid development, female labor force participation remains low even by the standard of many other South Asian and Middle East and North African (MENA) countries.³ NEET females are highly susceptible to durably remaining outside the labor force. By surveying the young females themselves or male heads of the household in separately sampled households, we gain novel insights into the attitudes of both groups. Given the dearth of survey evidence on gender norms in Bangladesh (Heintz et al. 2018), this is an important contribution. Moreover, we embed vignette experiments⁴ into our survey to answer our main research questions: do people in Bangladesh adjust

²The share of youth with NEET status is a better measure of the current universe of potential youth labor market entrants than youth unemployment. It is also included as a key indicator in the Sustainable Development Goals (UNGA 2017).

³Over the last three decades, Bangladesh experienced sustained GDP growth of over 6 percent alongside increased urbanization, gender parity in primary education, higher school attainment by females, and a declining fertility rate. At the same time, the rapid development of ready-made garments played a positive role in female labor force participation (Heath & Mobarak 2015). Still, Bangladesh remains far behind in female labor force participation (FLFP), with a rate of 36%. (Source: FLFP rate, World Bank Development Indicators. <https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS>)

⁴Vignette or conjoint experiments are widespread in Economics (Kaur 2019), Sociology (Auspurg et al. 2017) and Political Science (Hainmueller & Hopkins 2015) to study labor market-related preferences and attitudes. Their advantages include the ability to simultaneously randomize on multiple dimensions, invoke scenarios hard to model in laboratories, reduced social desirability concerns, cost-efficient implementation in surveys, and—depending on the quality of the sample—external validity. The lack of behavioral measures admittedly creates concerns about internal validity, which highlights the need to triangulate with different methods in future research.

their personal support for working women when confronted with different degrees of support in the women's network? And whose support has the greatest influence on personal belief?

To answer these questions, we confront respondents with hypothetical scenarios of a young female facing the decision of whether to take up work. In a first step, we compare the effects of normative social expectations (randomized approval vs. disapproval for the female in her village) and empirical social expectations (randomized working vs. not working majority of females in the village) on personal behavior and belief. The results show that inducing positive social expectations (approval) significantly affects respondents' support for taking up work (belief), irrespective of whether expectations are normative or empirical.

In a second step, we use a similar vignette to compare the effects of two actors (randomly varied between father or husband, friends, and religious authority) either approving or disapproving of the female taking up a job on personal support. This design allows causal identification of whose approval matters in shaping social expectations and support for working women (as well as the effect of disagreement between groups of actors). The results show that—irrespective of respondents' gender or NEET status — fathers' or husbands' approval compared to approval from the religious authority or peers have by far the largest influence on respondents' support for working women.

In a third and final step, we study whether support for taking up work depends on socioeconomic circumstances and job characteristics. For example, it might be that economic incentives attenuate normative concerns. We simultaneously vary the fictitious female's economic motives (augmenting own vs. household income), salary level, and need to leave the village for the job. Results show that a higher salary increases support, indicating acceptance of economic incentives as a legitimate part of the decision calculus. However, the need to leave the village has a strong negative effect on support, which might arise from allegiance to traditional family values and safety concerns.

Our central findings can be summarized as follows. People in Bangladesh do not seem to hold unshakable norms disincentivizing female employment. Rather, their level of support for female employment responds to social cues, such as the employment patterns or approval in the person's environment. The key social cue is whether or not fathers and husbands approve of employment. Religious authorities and peers are of relatively small or no importance.

Taken together, these results suggest that policies aiming to increase female youth employment should target their fathers or husbands. An example would be information campaigns influencing social

expectations about the attitudes of this group. An alternative would be increasing young females' independence from them, e.g., by discouraging early marriage. Another well-known hurdle to female labor force participation – the frequent necessity to travel to work – also shows up in our study. So, policies aiming at making commuting safer for females could also make a difference.

In the next two sections, we give an overview of the data collection and the experimental design. In Section 4, we present our findings and conclude in Section 5.

2 Survey strategy and sampling

We surveyed female youth aged 15 to 29 years (NEETs as well as working females) and their fathers or if married, their husbands. The survey covered attitudes towards female employment, the distribution of tasks in the household, women's (self-)perceived financial and personal autonomy, as well as a range of socio-demographic background characteristics. As described further below, we use vignettes to let respondents engage with scenarios in which expectations, support patterns in one's network, and job characteristics are varied. We hence manipulate normative and empirical social expectations following [Bicchieri et al.'s \(2014\)](#) approach in vignette I.⁵ It also allows us to establish the differential impact on personal behavior and personal belief. Further, using the same structure, we investigate the effect of actors in reference networks on personal belief, which is the core goal of our study (vignette II). We further vary economic motives and job characteristics, i.e., salary, and location, to understand the factors that can influence personal beliefs (vignette III).

Conducting surveys in Bangladesh is not as straightforward as in many richer countries. This is particularly true when specific groups are targeted, such as the females in NEET we focus on. To be clear, by the usual standards of survey research, we are dealing with a convenience sample and cannot claim representativeness. That said, we were able to collect a large, nationwide sample of young female NEETs. Given that we currently know extremely little about the situation of this group, let alone their gender attitudes, this constitutes a major step forward.

⁵This framework is suitable for our purpose because it is explicitly designed to identify preferences that are conditional on normative or empirical social expectations (for other applications, see e.g. [Gauri et al. \(2019\)](#), [Lo Iacono et al. \(2021\)](#), [Szekely et al. \(2021\)](#)). Again, the policy relevance of these distinctions lies in the crucial question of whether government action should address the widespread practice of remaining NEET by correcting personal beliefs or by targeting expectations about what others do and find appropriate. Moreover, knowing whether expectations about descriptive or injunctive norms matter more is important because research on social norm nudging shows that these beliefs can have different effects on behavior ([Köbis et al. 2019](#)). For these reasons (and to connect to the growing literature inspired by it), we closely follow the guidelines of [Bicchieri et al. \(2014\)](#) for how to distinctly operationalize personal normative beliefs as well as empirical expectations in vignettes with fictitious scenarios (see Section [3](#)).

This study is focused on poorer households in Bangladesh. We conducted two phone surveys between November 2020 and April 2021. First, we conducted a screening survey to identify NEET household members aged 15–29 years between November and January and conducted the main survey between February and April. For the screening survey, 27,000 students were randomly selected, equally divided between rural and urban areas, from the national stipend database of grade-12 students in Bangladesh.⁶ The school’s head teacher suggests students for stipends based on need, which have to be approved by the District Education Officer. The number of stipends per district is decided centrally. Because of the probability sampling, our sample is representative of the universe of households with children recommended for stipends, which of course, should be expected to differ from the general population in terms of poverty status.

Following a strict phone protocol, we could communicate with the 13,357 household heads. The main reasons for not being able to contact were switched-off or wrong phone numbers. 77.9% of households had at least one female household member aged between 15-29. Among them, 1,399 households had at least one female youth member who was NEET, and 2,198 households had at least one female youth member who was in work in return for pay or profit.⁷ Among the households with at least one NEET youth member, we randomly sampled half the households to survey only the NEET female. In the other half, we surveyed only the father or, if married, the husband of the NEET female. Similarly, we randomly sampled 1,500 households with a working female member and divided them into two groups to survey either the working female or their father or husband. With this protocol, we hence gathered survey responses from four groups: female NEET, working female, father or husband of female NEET, and father or husband of working female. We did not sample respondents

⁶The grade-12 stipend database consists of 313,269 students, approximately 77% female, out of about 3.2 million students in grade-12 in Bangladesh (Source: author’s calculation from the stipend database and Bangladesh Bureau of Educational Information and Statistics. <http://www.banbeis.gov.bd/site/files/7f69e2ed-1881-47ff-b9df-7e265f6484e5/Statistics-Summary>).

⁷Criteria for NEET identification according to Labor Force Survey (LFS) 2017 Bangladesh were: not in school or receiving any training, not working or absent from work or looking for a job in the last 7 days in return of pay or profit, and not looking for a job. We identified a female NEET following the same criteria and questionnaire used for the LFS 2017 except for ‘looking for a job’ as a criterion. Out of all our sampled NEET females, 26% were looking for a job during the survey period. We identified a working female as someone working or absent from work due to illness in the last 7 days in return for pay or profit.

⁸Overall, we found a higher share of working females in the sample as compared to the national average. According to Labor Force Survey Bangladesh 2017, half (49.4%) of 15-29 working-age females were NEET. The reason for the high share of working females was probably due to our sampling frame. As mentioned earlier, our sampling frame consists of 16–17 years old grade-12 students who were mostly female (77%). The sampled households are allowing females to study significantly more than the average schooling years in Bangladesh (average schooling years was 6.1 years in 2019. Source: World Bank Development Indicators, <https://bit.ly/3CgiC8a>, 2019). Households in our sampling frame are most probably more progressive towards women empowerment than the general population.

in different roles, that is, young female and male household heads, from the same household. In the case of a household with both NEET and working female members (138 households), the household was sampled as a female NEET household, and we surveyed only the female NEET or her father or husband.

3 Experimental design and identification strategy

Our survey contains an experimental part composed of three different vignettes. The vignettes tell short stories about an imaginary female considering taking up a job in specific scenarios. The experimental manipulation of these scenarios makes identifying the causal impact of different characteristics possible. Moreover, asking respondents about hypothetical scenarios helps to elicit beliefs and expectations when the questions are socially sensitive and subject to social desirability biases.

The first vignette is designed to answer the question of which type of social expectation, if any, impacts the support for female participation in the labor force (empirical vs. normative). In order to do so, we followed the vignette design of [Bicchieri et al. \(2014\)](#).

Vignette 1: Empirical & normative social expectation

(a) Empirical expectation	(b) Normative expectation
Think about a situation in which a young married/unmarried female is considering taking up a job. Most females in her village participate/do not participate in a job outside the home to earn an income.	People in her village think that good females work/do not work outside home for income.

Respondents were asked to think about a scenario in which a young married or unmarried female is considering taking up a job (Vignette 1). The versions (a) and (b), as well as the attributes in bold, were randomly varied. We can, hence, compare positive and negative expectations crossed with the distinction between empirical and normative expectations. In addition, we can test whether being married influences responses. After reading the vignette, respondents were asked to indicate the likelihood that the father or husband would agree with the female taking up the job (expected behavior) and if they themselves thought the father or husband should agree (personal normative belief).⁹¹⁰

⁹The survey questions were (i) expected behavior: In your opinion, will the female's father or husband ultimately agree that his daughter/wife takes the job? (ii) personal normative belief: Do you think the father/husband should agree to his daughter/wife taking the job?

¹⁰Respondents were also allowed to respond 'don't know.' We dropped these observations from our analysis. In vignette I, 140 and 28 observations were dropped from expected behavior and personal normative belief questions, respectively.

Our second vignette is designed to understand whose norms are relevant in this context and, in cases where social norms of multiple groups are relevant, what happens in case of disagreements.

Vignette 2a: Whose norms matter?

Think about a situation in which a young female is planning to take up a job.
Her **father-husband/friends/religious authority** and
her **father-husband/friends/religious authority** approves taking up the job.

Vignette 2b: Whose norms matter?

Think about a situation in which a young female is planning to take up a job.
Her **father-husband/friends/religious authority** approves and
her **father-husband/friends/religious authority** does not approve of taking up the job.

Respondents were confronted twice with scenarios from Vignette 2a and 2b in the same order. The attributes in bold were randomly selected so that approval and disapproval in the reference network can be compared, as well as three different sources^[11] After both scenarios, respondents were asked if they thought the fictitious female should take up the job (personal normative beliefs).^{[12][13]}

Finally, our last vignette is designed to deepen our understanding of how sensitive norms about FLFP are to objective job characteristics. For example, respondents might be more supportive of working women if it allows them to contribute larger sums to the household. We, therefore, manipulate in Vignette 3 the reason for working (increase own vs. household income), the compensation (minimum wage in the garments sector vs. minimum wage + 25%), and the necessity to move outside the village.

Vignette 3: Women's personal motives

Think about a situation in which a young female is planning to take up a job
to increase **her own income/household income**
the salary is **8,000 BDT/10,000 BDT** (93/117 USD)
and she will **need to move/will not need to move** outside her village.

Respondents received only one scenario where the attributes in bold were randomly selected. They were then asked, as in the previous case, if they thought the female in the vignette should take the job.^{[14][15]}

¹¹ Illogical combinations, such as father approves and father disapproves, etc, were eliminated from the choice set on which the randomization was performed.

¹² Question was "Do you think the father/husband should agree to his daughter/wife taking the job?" This question was asked twice (after each scenario).

¹³ Again, respondents were allowed to respond 'don't know,' and we dropped these observations from our analysis. In vignette II, 134 and 132 observations were dropped from scenarios 2a and 2b, respectively.

¹⁴ The question was "Do you think the father/husband should agree to his daughter/wife taking the job?"

¹⁵ Again, respondents were allowed to respond 'don't know,' and we dropped these observations from our analysis. In vignette III, 136 observations were dropped.

We have thus a total of 8 different scenarios of the first vignette, 12 of the second, and 8 of the third. Each respondent received 4 vignettes (1 of the first and third vignette types, and 2 of the second). Therefore, given our sample size and the randomization, the minimum number of observations we have per vignette is 111 from Vignette 2a, and the maximum is 227 from Vignette 3.

Our final sample consists of 1,624 individuals: 869 young females (482 NEET and 387 working) and 760 fathers or husbands (or another male household head if father or husband were not available¹⁶).

We estimate the effect of each of the different norms or personal motives on the probability of positive expectations or personal normative beliefs on young female labor force participation. Our effect can be causally identified thanks to the random assignment of each attribute in each vignette.

Table A2 in the Appendix shows that our randomization worked for each vignette. All observable characteristics such as age, marital status, education, and religion of household members are balanced between the different vignette scenarios. This holds for both samples. Our estimations still control for these background characteristics to increase their precision.

Besides the vignettes, our survey included questions on individual and household characteristics and general attitudes towards women's role in the family.

4 Results

Overall, the results show that NEET females endorse traditional gender roles more than working females. As shown in Table 1, this is also true for a subset of questions that capture general attitudes towards female employment. Compared to NEET females, working women are more likely to agree that women can earn as much money as men and that men and women have the same right to scarce jobs. We find similar attitudinal differences between male household heads of NEETs and working females. Interestingly, members of both types of households largely agree that being a housewife can be as fulfilling as working for pay, but that discrimination against women is a major issue in Bangladesh and that women, in principle, are capable of contributing to household income.

Vignette Experiments In all dependent variables following our three vignettes, personal support as well as the expectation of others' support for female employment is rather strong. It ranges from

¹⁶Overall, 81% of the respondents are either father or husband of the sampled female. In case of unavailability of father or husband, we surveyed another male household head, such as father-in-law, husband's brother, sister's husband etc.

Table 1: General attitude towards female employment

	(1)	(2)	(3)	(4)	(5)	(6)
	Respondent: NEET female	Respondent: Working female	Difference (2)-(1)	Respondent: Father/husband of NEET female	Respondent: Father/husband of working female	Difference (4)-(5)
	mean	mean	b	mean	mean	b
Agree that women are just as capable as men of contributing to household income	0.96	0.99	0.03**	0.93	0.89	-0.03
Agree that women can earn money as man	0.41	0.69	0.28***	0.27	0.43	0.16***
Agree that when jobs are scarce, men and women have same right to them	0.42	0.64	0.22***	0.38	0.51	0.13***
Agree that being a housewife is just as fulfilling as working for pay	0.79	0.80	0.01	0.73	0.67	-0.06
Agree that one of the main three issues in Bangladesh is discrimination against women	0.77	0.81	0.04	0.84	0.85	0.01

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The available responses were "agree" and "disagree" for the first four statements. For the final statement, the question was "Which of these problems do you consider the most serious in your country: people living in poverty and need; discrimination against girls and women; poor sanitation and infectious diseases; inadequate education; and environmental pollution? Please rank the first three".

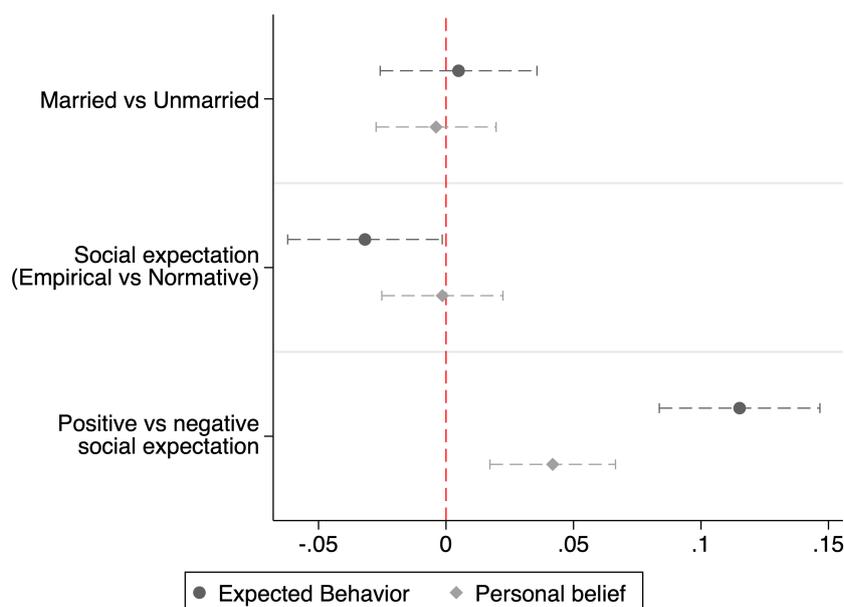
73% (Vignette 2) to 94% (Vignette 1). While it is possible that a different wording might have produced lower baseline support, we focus here on the marginal effects and ignore mean support. It is important to bear in mind, however, that ceiling effects might lead to lower effect sizes in some cases, particularly among women, who (unsurprisingly) tend to show higher baseline support for female employment.

Vignette 1: Social Expectations On average, 89.6% of respondents expect that the father or husband supports the employment of the fictitious female (92% female, 87% male). Personal support is even higher (97% female, 91% male). The strongest support comes from working females (95.1%) and the weakest from the fathers or husbands of NEET females (88.9%).

What type of social expectations, if any, can change this support? The answer, as shown in Figure [I](#), is that social expectations do have an impact, especially on people's expected support of the reference male. Vignettes including signals of social approval (as opposed to disapproval) increase the likelihood of expecting support from the reference male by 11 percentage points. Personal support changes by 4 percentage points. Beyond the relevance of approval vs. disapproval, we find only a small difference between empirical and normative social expectations on expected father or husband's support. Empirical social expectations have a stronger effect, but only when negative. They significantly reduce expected support by 7 percentage points more than negative normative social expectations. For positive expectations, there is no difference between normative and empirical (see Figure [A6](#)).

Finally, the marital status of the fictitious female has no influence on the two dependent variables.

Figure 1: Effect of social expectation on father or husband support for daughter/wife working

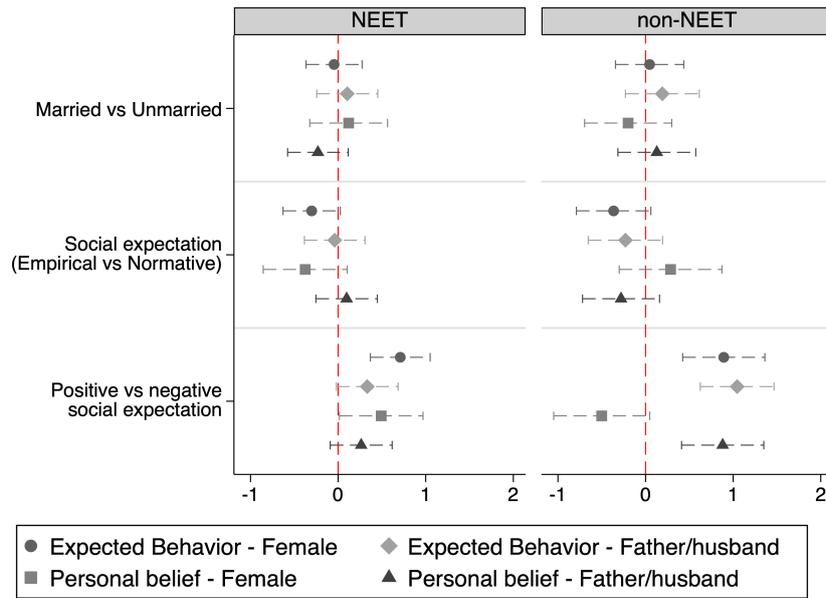


Note: The figure shows the marginal effects from probit estimates of support of the randomly assigned attributes to the vignette described in section 3 with 95% confidence intervals. The estimations control for age, marital status, education, religion of the young female and of the reference male in the household and for the relationship between them. Respondents were allowed to respond 'don't know'. We dropped these observations from our analysis. In Vignette 1, 140 and 28 observations were dropped from expected behavior and personal normative belief questions respectively.

These patterns are mostly confirmed when we differentiate female and father or husband respondents in NEET and non-NEET households (Figure 2). The lowest impact of social expectations can be found in the personal beliefs of females, especially working females, who are not at all affected by any type of social expectation. This is likely due to a ceiling effect that prohibits any positive effect of this already supportive group. The groups whose expectations on father or husband support are most responsive are NEET females and fathers or husbands of not-NEET. These are also the two groups for which negative empirical social expectations have a stronger negative impact than normative expectations.

In sum, the effects of Vignette 1 suggest that views of female employment are malleable. Respondents clearly expect fictitious fathers and husbands to factor in cues from the social environment when deciding on whether to support the employment of their daughters and wives. Also, respondents' personal beliefs change, although the effect is less pronounced. We find no systematic evidence that empirical or normative expectations differ in our context.

Figure 2: Effect of social expectation on father or husband support for daughter/wife working



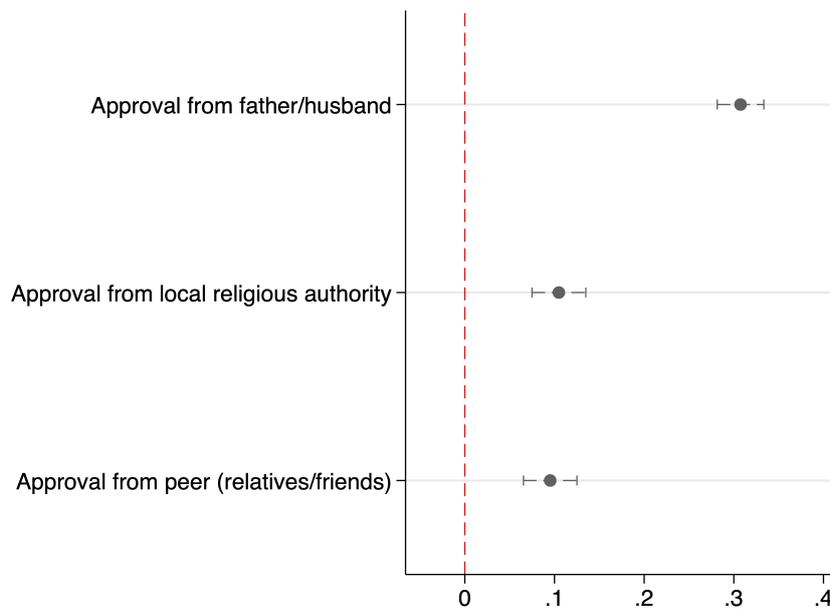
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Vignette 2: Whose Opinion Matters? In the next step, we analyze whose norms are most influential in adjusting support for female labor market participation. For this purpose, we randomize three types of actors, as well as their approval or disapproval of female employment. The results clearly point to the support of fathers or husbands as the most relevant social cue. As shown in Figure 3, the likelihood of supporting the female's employment increases by 30 percentage points (41% of the mean support) if the vignettes indicate father or husband approval. Recall that baseline support for the female's employment is considerably lower in Vignette 2, so larger effects are possible.

While a strong effect of reference males could certainly be expected, the contrast to religious authorities in particular is striking. Religious authorities are clearly secondary as a legitimizing institution. The effect of their approval is roughly on the same level as the one by relatives and friends (both around ten percentage points). This pattern could point to a secularization of gender norms in Bangladesh without a weakening of traditional family hierarchies.

By always presenting two actors' (dis)approval, the design of Vignette 2 allows for analyzing the effect of disagreement in the reference network. When the father or husband approves, the disapproval of either the peers or the religious authority decreases the average support by around 5% and only

Figure 3: Effect of approval from different actors on personal support for female working



Note: The figure shows the marginal effects from probit estimates of support of the randomly assigned attributes to the vignette described in section 3 with 95% confidence intervals. The estimations control for age, marital status, education, religion of the young female and of the reference male in the household and for the relationship between them. Respondents were allowed to respond 'don't know,' and we dropped these observations from our analysis. In Vignette 2, 134 and 132 observations were dropped from scenarios 2a and 2b, respectively.

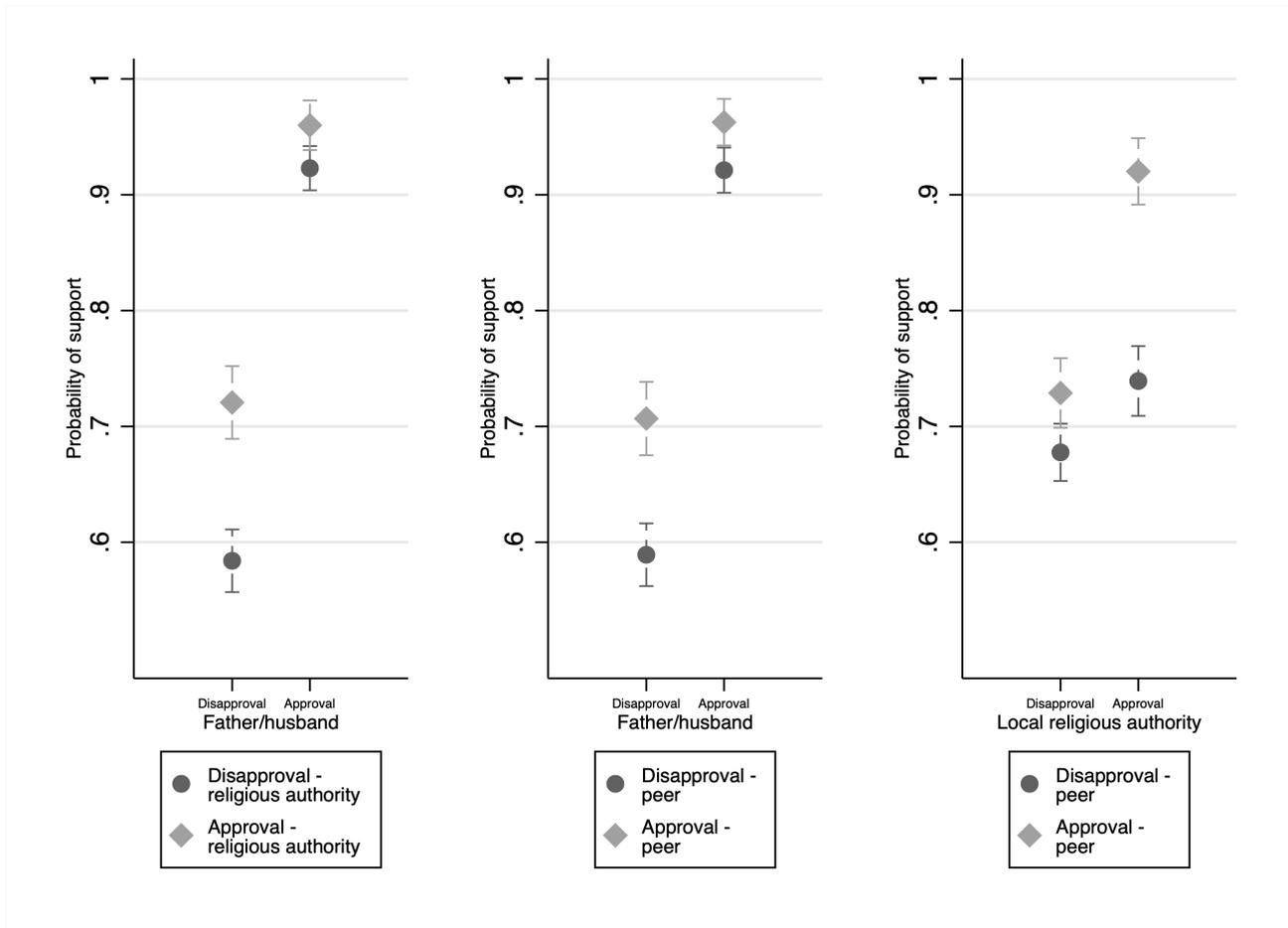
significantly so in the case of peers. The father's or husband's support, hence, seems to be sufficient for supporting the female. This support decreases by around 26% if the father or husband does not approve, while the peers or the religious authority play a much less important role. The approval from those two actors has basically the same effect in magnitude, and even when combined, they do not reach the effect of father or husband approval (Figure 4).

These findings show that, when deciding whether to support a young female's employment, respondents take the stance of the father or husband as the key social cue that clearly trumps what religious authorities or peers signal.

Vignette 3: Job Characteristics and Motives In our last vignette, we focus on job characteristics and the female's possible personal motives to accept a job offer. We, again, find a high general support of 79% on average. In contrast to the previous vignettes, there is no gender gap in support. In households with at least one young working female, the support is slightly higher (4 percentage points, significant at 10%).

Both, an increase in salary and the need for moving outside the village, are very important factors

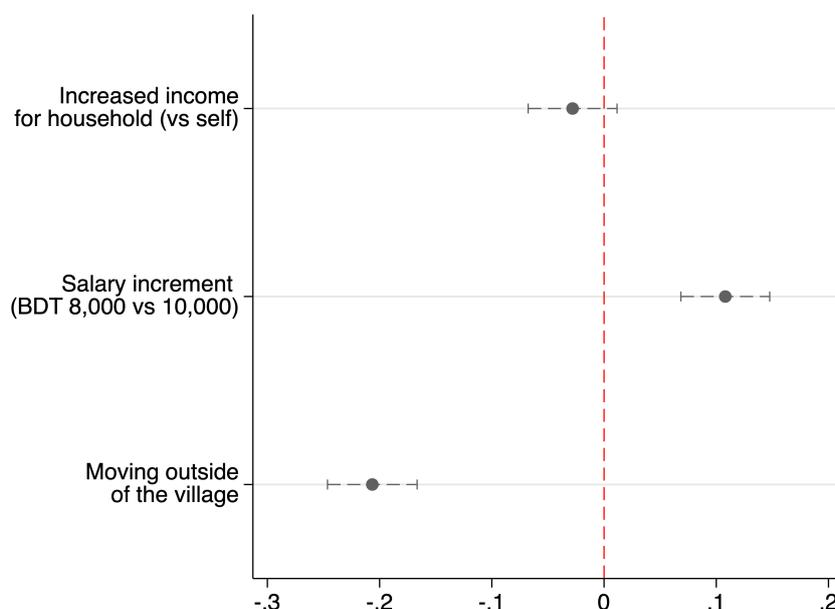
Figure 4: Probability of personal support for female working by approval from different actors



Note: The figures show the predicted probabilities of support with 95% confidence intervals. The estimations control for age, marital status, education, religion of the young female and of the reference male in the household and for the relationship between them. Respondents were allowed to respond 'don't know,' and we dropped these observations from our analysis. In Vignette 2, 134 and 132 observations were dropped from scenarios 2a and 2b respectively

behind the support for female labor force participation (Figure 5). On average, a 25% salary increase leads to an 11 percentage point increase in support for accepting the offer. This suggests that respondents see material incentives as a legitimate part of the decision of whether females should take up work. With a decrease of 20 percentage points, the necessity to move outside the village for the job has almost double the impact in magnitude. Whatever the reasons, respondents clearly do not approve of females leaving their environment for jobs. Interestingly, the effect of the higher salary on the support depends on the necessity to move. It is 7 percentage points when moving is not needed and goes up to more than double the impact (15 percentage points) when moving is needed. This suggests, again, that material considerations are seen as important aspects that can partly offset detrimental cultural factors to female labor force participation.

Figure 5: Effect of different motives on support for female working



Note: The figure shows the marginal effects from probit estimates of support of the randomly assigned attributes to the vignette described in section 3 with 95% confidence intervals. The estimations control for age, marital status, education, religion of the young female and of the reference male in the household and for the relationship between them. Respondents were allowed to respond 'don't know,' and we dropped these observations from our analysis. In Vignette 3, 136 observations were dropped.

5 Conclusion

Our experimental results suggest that—while social norms play a key role in sustaining a low employment rate among young females in Bangladesh—these norms are not cast in stone. Signals that a female’s environment approves of female employment, be it in the form of explicit support or behavior, has an influence on respondents’ views. We did not find any difference between manipulations of normative and empirical expectations. However, Vignette 1 produced a particularly strong average support for female employment, which might have masked such differences. It is also possible that respondents inferred normative support from behavioral patterns in the vignette (and vice versa), which would undermine our ability to distinguish both concepts.

What really makes a substantial difference is the approval of the reference male. Readers familiar with the social context in Bangladesh might not be surprised by this finding. However, the stark contrast to the much less pronounced influence of religious authorities could not be expected in this form, given the key role that the literature attributes to religion, especially Islam, for low female labor force participation (Alam et al. 2018, Bayanpourtehrani & Sylwester 2013, Besamusca et al. 2015, Dildar 2015). It might of course still be the case that religion plays a key role, but that religious norms

are mainly transmitted by the reference male rather than directly by religious authorities. We also expected peers to be more important, as recent research showed their large influence on attitudes and behavior in neighboring India (Rao 2019), albeit in a different context than labor force participation. Objective job conditions and related motives, like the salary level and the need to leave the home village, are also important determinants of support for female labor force participation. The positive effect of the salary level indicates that respondents understand the necessity to balance socio-cultural concerns and material needs. Sacrificing compliance to traditional gender roles for a higher salary seems to enjoy some legitimacy in Bangladesh. Regarding the effect of the necessity to move, there is more room for interpretation. It could be related to traditionalism and the wish for families to remain united, to cultural aversion to urban centers, to concerns about the safety and morality of the young female, or to practical concerns such as housing costs. Future research should zoom in on the factors underlying the negative reaction to the geographical mobility of young women, which is an important characteristic of many labor markets in the Global South (Field & Vyborny 2022, Cheema et al. 2019).

Taken together, our results suggest that policies aiming to increase female youth employment should target social expectations in the population. Fathers or husbands should be central in such a strategy. For example, public campaigns that portray males who endorse the employment of their wives and daughters might be a low-cost way to influence gender attitudes and their behavioral effects.

In principle, it would be even more desirable to increase the independence of young females from males in their families. Enabling them, through schooling and dedicated labor market programs, to earn higher salaries would be a key step in that direction. In fact, our results suggest that higher salaries for young women would immediately translate into a more legitimate role in the labor market. However, the same norms that inhibit labor force participation arguably also inhibit participation in education. Interventions to influence social expectations, hence, remain an attractive option. We would like to highlight that this does not have to take the form of paternalistic “correction” of values, let alone deception. Our survey documents considerable support for female employment, which could be made visible in public campaigns. In this way, social progress could be achieved by simply making expectations more accurate (Aloud et al. 2020, Bursztyn et al. 2020).

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A Appendix

Table A1: Descriptive Statistics

	Mean	SD	Min	Max
Age - female respondent	21.03	3.355	15	29
Age - HH head	42.79	13.568	16	95
Marital status - HH head				
Unmarried	0.49	0.500	0	1
Married	0.51	0.500	0	1
Divorced	0.00	0.035	0	1
Separated	0.00	0.043	0	1
Education - HH head				
Pre-school	0.01	0.118	0	1
Grade 1	0.00	0.035	0	1
Grade 2	0.00	0.055	0	1
Grade 3	0.00	0.055	0	1
Grade 4	0.00	0.066	0	1
Grade 5	0.04	0.192	0	1
grade 6	0.01	0.110	0	1
Grade 7	0.03	0.161	0	1
Grade 8	0.08	0.269	0	1
Grade 9	0.07	0.247	0	1
SSC or equivalent	0.17	0.380	0	1
HSC or equivalent	0.44	0.496	0	1
Diploma or equivalent	0.01	0.078	0	1
Bachelor or equivalent	0.09	0.281	0	1
Masters or equivalent	0.04	0.207	0	1
PhD or equivalent	0.00	0.043	0	1
Religious studies	0.00	0.050	0	1
Female respondent's relationship to HH head				
parents	0.43	0.495	0	1
In-laws	0.12	0.324	0	1
husband	0.35	0.477	0	1
brother/sister	0.07	0.256	0	1
Husband's brother/sister	0.02	0.126	0	1
Grand - father/mother	0.00	0.055	0	1
Uncle/Aunt	0.01	0.086	0	1
Sister's husband/brother-in-law	0.00	0.055	0	1
Self	0.00	0.043	0	1
HH head - male	0.97	0.164	0	1
HH head - female	0.03	0.164	0	1
Marital status - female respondent				
Unmarried	0.05	0.223	0	1
Married	0.93	0.262	0	1
Widow/widower	0.02	0.137	0	1
Divorced	0.00	0.050	0	1
Islam	0.92	0.266	0	1
Hinduism	0.07	0.262	0	1
Budhism	0.00	0.025	0	1
Christiniaty	0.00	0.043	0	1
Education - female respondent				
Pre-school	0.17	0.378	0	1
Grade 1	0.01	0.092	0	1
Grade 2	0.02	0.123	0	1
Grade 3	0.02	0.139	0	1
Grade 4	0.03	0.168	0	1
Grade 5	0.12	0.323	0	1
Grade 6	0.02	0.155	0	1
Grade 7	0.02	0.155	0	1
Grade 8	0.11	0.312	0	1
Grade 9	0.06	0.231	0	1
SSC or equivalent	0.16	0.363	0	1
HSC or equivalent	0.13	0.340	0	1
Diploma or equivalent	0.01	0.116	0	1
Bachelor or equivalent	0.07	0.262	0	1
Masters or equivalent	0.04	0.195	0	1
Religious studies	0.00	0.070	0	1
Observations	1624			

Note: This table provides summary statistics of educational status, marital status, religion and sampled female's relationship to the HH head.

Table A2: Randomization Checks

	Vignette 1			Vignette 2				Vignette 3			
	Married vs Unmarried	Empirical vs Normative	Positive vs negative	Father	Religious Authority Approval	Peers	Consensus vs Disagreement	Approval vs Disapproval	HH vs own income	BDT 10,000 vs 8,000	Moving vs not moving
Age - female	-0.143	-0.191	-0.226	0.057	0.204	-0.045	0.004	0.117	0.121	-0.132	-0.222
Age - father/husband	-0.934	1.019	0.787	-0.630	0.002	-0.018	0.092	0.706	-0.460	-0.171	-0.299
Unmarried	-0.038	0.008	0.038	0.021	0.015	0.011	0.008	-0.021	-0.025	-0.002	0.020
Married	0.042	-0.007	-0.035	-0.020	-0.016	-0.013	-0.007	0.022	0.024	0.004	-0.019
Divorced	-0.002	0.000	0.000	0.002	-0.000	-0.000	-0.001	-0.002	-0.001	-0.001	0.002
Separated	-0.001	-0.001	-0.003	-0.004	0.001	0.001	-0.000	0.001	0.001	-0.001	-0.002
Pre-school	-0.004	0.002	0.000	-0.018**	0.004	-0.009	-0.004	0.005	-0.007	0.000	0.003
Grade 1	-0.000	-0.002	-0.002	0.002	0.002	-0.000	-0.001	-0.001	0.002	0.002*	0.002
Grade 2	-0.001	-0.004	-0.003	0.001	-0.001	-0.004	0.003	0.002	-0.001	0.000	-0.002
Grade 3	0.004	-0.004	-0.003	-0.004	0.001	0.001	0.000	0.003	0.003	-0.002	-0.005*
Grade 4	-0.001	-0.001	-0.003	-0.001	-0.001	0.004	-0.002	0.001	0.004	0.001	-0.001
Grade 5	0.012	0.007	-0.000	0.000	-0.007	0.011	-0.003	0.007	0.010	-0.001	-0.009
grade 6	0.010	0.003	-0.001	0.003	-0.002	0.002	0.001	0.003	0.000	0.003	-0.001
Grade 7	0.001	-0.005	0.002	0.001	-0.006	-0.004	0.003	0.003	-0.022***	-0.004	0.007
Grade 8	0.017	-0.021	0.013	-0.003	0.004	0.009	0.003	0.003	0.002	-0.003	-0.007
Grade 9	-0.001	0.009	-0.007	0.008	-0.022	-0.002	-0.002	-0.003	-0.002	0.003	0.006
SSC or equivalent	-0.008	-0.014	-0.013	0.003	-0.018	-0.019	0.017	0.016	-0.004	-0.021	-0.030*
HSC or equivalent	-0.006	0.018	0.018	0.002	0.033	-0.008	-0.016	-0.017	0.001	0.014	0.027
Diploma or equivalent	-0.007	0.003	0.001	0.005	-0.002	0.002	0.005	0.003	-0.001	-0.002	-0.006
Bachelor or equivalent	-0.021	-0.005	-0.007	0.010	0.005	0.020	0.006	-0.037***	0.014	0.019	0.022
Masters or equivalent	0.001	0.006	0.007	-0.011	0.011	-0.002	-0.010	0.013	0.000	-0.006	-0.006
PhD or equivalent	0.004	0.001	0.004	-0.001	0.001	-0.001	-0.000	-0.000	-0.001	-0.002	-0.001
Religious studies	0.002	0.005*	-0.005	0.002	-0.000	-0.000	-0.001	-0.001	0.001	0.000	0.000
parents	-0.062*	0.009	0.031	-0.002	0.027	0.018	0.000	-0.020	-0.012	0.006	0.022
In-laws	0.013	0.019	0.014	0.001	-0.022	-0.000	-0.002	0.037**	-0.014	0.011	-0.005
husband	0.019	-0.021	-0.059*	-0.008	-0.001	-0.014	-0.001	-0.017	0.034	-0.002	-0.011
brother/sister	0.016	0.007	0.006	0.000	-0.000	0.001	0.004	0.002	-0.011	-0.009	-0.003
Husband's brother/sister	0.010	-0.011	-0.001	0.003	-0.003	-0.010	-0.003	-0.003	0.000	0.001	0.004
Grand - father/mother	-0.001	-0.001	0.002	-0.001	-0.001	-0.004	0.002	0.002	0.002	-0.001	-0.004
Uncle/Aunt	0.002	0.003	0.001	0.007	-0.000	0.010*	-0.002	-0.000	-0.000	-0.004	-0.001
Sister's husband/brother-in-law	0.001	-0.004	0.004	0.001	-0.001	-0.004	0.002	-0.001	0.000	-0.002	-0.002
Self	0.001	-0.001	0.001	-0.001	0.001	0.004	-0.000	-0.000	0.001	0.000	-0.001
Q2_13_H==Male	-0.001	0.009	-0.005	-0.006	0.004	0.002	-0.000	-0.000	-0.001	-0.000	0.001
Q2_13_H==Female	0.001	-0.009	0.005	0.006	-0.004	-0.002	0.000	0.000	0.001	0.000	-0.001
Unmarried	0.013	-0.006	-0.007	-0.006	0.004	0.007	-0.004	-0.004	-0.004	-0.002	0.006
Married	-0.016	0.013	0.006	-0.000	0.008	-0.006	0.002	0.005	0.007	0.009	-0.002
Widow/widower	0.001	-0.005	-0.001	0.004	-0.009	-0.002	0.000	0.000	0.001	-0.006	-0.004
Divorced	0.002	-0.002	0.003	0.002	-0.002	-0.000	0.002	-0.001	-0.003	-0.001	0.000
Islam	0.018	0.005	0.003	-0.003	-0.012	0.004	-0.006	-0.009	-0.005	0.007	0.016
Hinduism	-0.021	-0.003	-0.008	0.008	-0.012	-0.007	0.007	0.009	0.006	-0.003	-0.014
Budhism	0.001	-0.001	0.001	-0.001	0.001	-0.001	-0.000	0.001	-0.000	-0.001	-0.001
Christianity	0.001	-0.001	0.004	-0.004	-0.001	0.004	-0.000	-0.001	-0.000	-0.002	-0.001
Pre-school	-0.038*	0.009	-0.005	0.002	-0.031	0.029	-0.013	0.016	0.000	-0.008	-0.007
Grade 1	0.002	0.001	0.001	-0.002	0.002	0.002	0.000	0.000	-0.002	-0.001	0.001
Grade 2	-0.001	0.002	0.003	0.011	-0.001	-0.004	-0.003	0.000	0.001	0.001	0.002
Grade 3	-0.005	0.001	0.002	0.007	-0.007	-0.008	0.005	-0.003	0.007	-0.002	-0.007
Grade 4	0.018*	0.018*	0.012	-0.006	-0.006	-0.017*	-0.001	-0.011	-0.008	0.001	0.012
Grade 5	-0.007	-0.005	0.017	0.018	0.049**	-0.008	0.013	0.007	-0.009	-0.003	-0.008
Grade 6	-0.000	-0.003	-0.012	-0.005	-0.003	0.009	0.007	-0.006	0.007	-0.007	-0.010
Grade 7	0.002	-0.006	0.005	-0.002	0.002	-0.008	-0.004	0.008	0.006	0.001	-0.005
Grade 8	0.008	0.019	-0.006	0.008	-0.015	-0.022	0.010	0.017	-0.012	0.009	-0.002
Grade 9	0.007	-0.016	-0.003	-0.010	-0.017	0.004	-0.005	-0.002	-0.005	0.008	0.012
SSC or equivalent	0.004	-0.012	0.003	0.007	0.011	0.010	0.002	-0.022	0.001	0.006	0.014
HSC or equivalent	0.003	-0.017	-0.021	-0.004	-0.000	-0.016	-0.007	-0.013	0.014	-0.002	0.002
Diploma or equivalent	-0.005	0.006	0.009	-0.002	0.007	-0.003	-0.005	0.007	-0.005	-0.001	0.001
Bachelor or equivalent	0.016	-0.005	-0.003	-0.009	0.010	0.013	0.005	0.001	0.011	-0.009	-0.016
Masters or equivalent	-0.003	0.010	0.005	-0.010	0.005	0.021*	-0.004	-0.001	-0.007	0.001	0.007
Religious studies	-0.000	0.000	-0.007	-0.002	-0.005	-0.003	-0.001	0.000	0.000	0.005*	0.004
Observations	1624	1624	1624	1624	1624	1624	3248	3248	3248	3248	3248

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. This table checks the balance for the attributes of the three vignettes described in section 3 across age, educational status and marital status of the HH head and sampled female, religion, sampled female's relationship to the HH head and HH head's gender.

Table A3: Vignette 1: Social Expectations

	(1)	(2)	(3)	(4)
	Expected behavior	Expected behavior	Personal belief	Personal belief
Married vs Unmarried	0.059 (0.089)	0.029 (0.091)	-0.007 (0.104)	-0.034 (0.103)
Empirical vs Normative	-0.191** (0.090)	-0.185** (0.091)	-0.028 (0.104)	-0.012 (0.105)
Positive vs Negative (social expectation)	0.620*** (0.092)	0.663*** (0.093)	0.345*** (0.105)	0.359*** (0.107)
N	1484	1484	1508	1508
Controls	No	Yes	No	Yes

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The table shows the marginal effects from probit estimates (as shown in figure 1) of support of the randomly assigned attributes to the vignette I described in section 3. The controls include age, educational status and marital status of the HH head and sampled female, religion, sampled female's relationship to the HH head and HH head's gender. Respondents were allowed to respond 'don't know'. We dropped these observations from our analysis. In Vignette 1, 140 and 28 observations were dropped from expected behavior and personal belief questions respectively. 3.

Table A4: Vignette 1: Social Expectations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	NEET				Non-NEET			
	Expected Behavior		Personal Belief		Expected Behavior		Personal Belief	
	Female	Father/Husband	Female	Father/Husband	Female	Father/Husband	Female	Father/Husband
Married vs Unmarried	-0.008 (0.027)	0.021 (0.035)	0.008 (0.016)	-0.041 (0.033)	.006 (0.025)	0.034 (0.039)	-0.011 (0.014)	0.017 (0.031)
Empirical vs Normative	-0.05* (0.027)	-0.008 (0.035)	-0.026 (0.016)	0.017 (0.032)	-0.045* (0.026)	-0.041 (0.038)	0.015 (0.016)	-0.037 (0.029)
Positive vs negative	0.118*** (0.029)	0.066* (0.035)	0.033** (0.016)	0.047 (0.032)	0.106*** (0.026)	0.19*** (0.041)	-0.026* (0.015)	0.117*** (0.033)
Observations	457	357	454	366	387	260	383	282

p -values in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

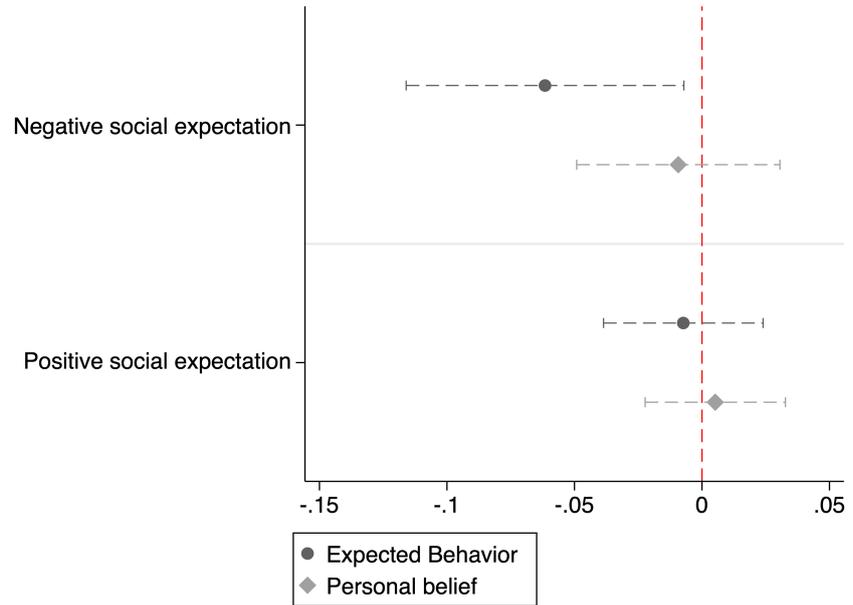
Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The table shows the marginal effects from probit estimates (as shown in figure 2) of support on the randomly assigned attributes for the responses of female and father/husband by NEET and non-NEET groups separately. Similar to other vignette estimations, we control for age, educational status and marital status of the HH head and sampled female, religion, sampled female's relationship to the HH head and HH head's gender. 'Don't know' responses were dropped from the analysis (140 and 28 observations were dropped from expected behavior and personal belief questions respectively). 3.

Table A5: Vignette 2: Whose norms matter?

	(1)	(2)	(3)	(4)	(5)
	All	NEET		Non-NEET	
		Female	Father/Husband	Female	Father/Husband
Father/Husband	1.213*** (0.069)	1.336*** (0.136)	1.238*** (0.136)	0.2.017*** (0.237)	0.764*** (0.130)
Religious Authority	0.374*** (0.057)	0.339*** (0.105)	0.285** (0.115)	0.501*** (0.117)	0.427*** (0.132)
Peers(relatives/friends)	0.338*** (0.056)	0.502*** (0.105)	0.311*** (0.113)	0.406*** (0.12)	0.084 (0.122)
Observations	2,982	953	713	770	546

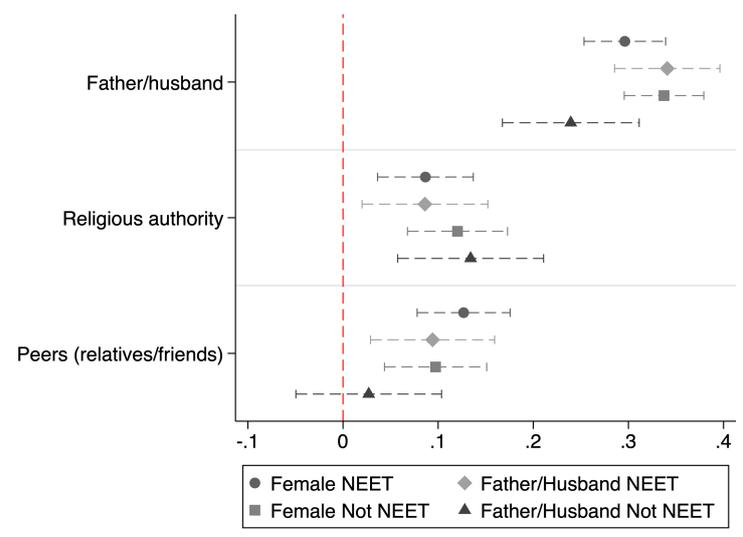
Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors are robust and in parenthesis. The table shows the effects from probit estimate of support in terms of approval from father/husband, religious authority and peers described in section 3. The estimations control for age, marital status, education, religion of the young female and of the reference male in the household and for the relationship between them. respondents were allowed to respond 'don't know'. We dropped these observations from the analysis. In vignette II, 266 observations were deleted.

Figure A6: Effect of empirical vs normative social expectation on father or husband support for daughter/wife working



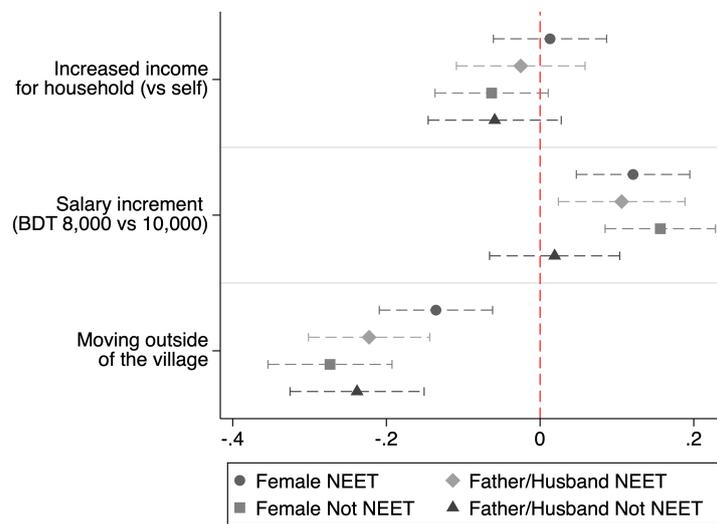
Note: The figure shows the marginal effects from probit estimates of support of the interactions between the randomly assigned attributes to the vignette described in section 3 with confidence intervals. The estimations control for age, marital status, education, religion of the young female and of the reference male in the household and for the relationship between them.

Figure A7: Effect of approval from different actors by respondent type



Note: The figure shows the marginal effects from probit estimates of support of the randomly assigned attributes to the vignette described in section 3 with 95% confidence intervals. The estimations control for age, marital status, education, religion of the young female and of the reference male in the household and for the relationship between them.

Figure A8: Effect by respondent type



Note: The figure shows the marginal effects from probit estimates of support of the randomly assigned attributes to the vignette described in section 3 with confidence intervals. The estimations control for age, marital status, education, religion of the young female and of the reference male in the household and for the relationship between them.