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**Identity, Household Work, and Subjective  
Well-Being among Rural Women in Bangladesh**

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**CGIAR Research Program on Policies, Institutions, and Markets**

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## ABSTRACT

Despite increases in women's employment, significant gender disparity exists in the time men and women spend on household and care work. Understanding how social expectations govern gender roles and contribute to this disparity is essential for designing policies that effectively promote a more equitable household division of labor. In this study, we examine how a woman's identity may affect the trade-offs between the time she spends on household and care work and her well-being, using an analytical framework we develop based on the work of Akerlof and Kranton. Analyzing data from rural Bangladesh, we find that longer hours spent on household work are associated with lower levels of subjective well-being among women who disagree with patriarchal notions of gender roles, while the opposite is true for women who agree with patriarchal notions of gender roles. Importantly, this pattern holds only when a woman strongly identifies with patriarchal or egalitarian notions of gender role.

**Keywords:** time use, gender, identity, subjective well-being

*JEL codes: B54, J22, I31*

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# 1. INTRODUCTION

One of the most enduring and persistent trends regarding time use is that household and care work remains primarily “women’s work” despite increases in women’s employment. Although evidence is growing of increases in men’s time in unpaid work in some countries, a traditional gender division of labor, in which women specialize in domestic activities such as the care of children and other family members and men specialize in income-earning activities, continues to prevail in many countries, particularly those where patriarchal norms are dominant and social sanctions against violation of such traditions are strong.

The increased participation of women in the labor market and persistence of social expectations governing gender roles has brought to the forefront of social and labor policy debates the tensions around the distribution of household work. The unequal sharing of household work and attempts by women to meet the time demands of both paid and unpaid work have imposed significant costs on women’s well-being and livelihoods, especially in low-income households. Notably, time spent on household work and care obligations constrains the amount and type of paid work that women can undertake and reduces their time available for education, leisure, self-care, and social activities. Moreover, the strain on women’s time increases with poverty (Bardasi and Wodon 2010). Often women are forced to make difficult sacrifices, such as lengthening their workday to accommodate both paid work and household work or engaging in simultaneous work activities for prolonged periods of time, which can have debilitating effects on women’s health due to stress, chronic fatigue, or lack of sleep (Baruch, Biener, and Barnett 1987; Zaman 1995; Floro and Pichetpongsa 2010).<sup>1</sup>

Concerns over women’s household and care work burden are particularly salient in predominantly patriarchal societies, in which women’s economic contributions are traditionally perceived as less valuable than men’s. Such perceptions, if subscribed to by women themselves, can lead to decreases in women’s bargaining power (Sen 1990) and can affect the types of decisions that are bargained over within households (Agarwal 1997). In other words, some women living in predominantly patriarchal societies may come to view their socially ascribed role and responsibilities within the household as incontestable. Others, however, may resist such beliefs. Economic restructuring and rapid expansion of trade and capital flows in many parts of the world have brought about improvements in working conditions as well as new opportunities for employment to many women. These changes, alongside demographic shifts, improvement in communications, and institutional reforms, encourage women to challenge traditional roles, even as social norms continue to govern gender role expectations, family relations, kinship systems, and community relations.

Designing effective policies for reducing and redistributing women’s household and care work burden requires understanding the challenges women face as they try to balance social expectations with the new opportunities accorded to them. In this paper, we address this topic by examining the relationship between women’s time spent on household work—a task that may be viewed as fulfilling women’s traditional role in a patriarchal society—and women’s subjective well-being (SWB). Drawing on the work of Akerlof and Kranton (2000) we argue that the nature of this relationship crucially depends on the degree to which women have internalized their socially ascribed roles. Working long hours in household work may enhance the role satisfaction of a woman whose identity (or sense of self) conforms to the behavioral prescriptions of patriarchal norms and social expectations regarding women’s role in the household as primary caregiver and manager.<sup>2</sup> It may, however, evoke an opposite reaction (for example,

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<sup>1</sup> In a time use study on rural Bangladesh, Zaman (1995) provides evidence of the work–leisure trade-off and a wide disparity in the leisure time of men (2.5 hours) and women (0.8 hours). Other studies show that the performance of two or more tasks at the same time is an important coping mechanism among Thailand home-based women workers as well as Caribbean and Latin American rural women in dealing with time pressure (Deere 1990; Szeto and Cebotarev 1990; Floro and Pichetpongsa 2010).

<sup>2</sup> See discussion of the issues of role satisfaction and role stress in terms of women’s sense of well-being in Messias et al. (1997).

resentment, tension, or stress) in a woman who does not subscribe to traditional notions about women's place in the household (for example, someone who aspires to meaningful employment and a more equal household division of labor). Differences in how women identify themselves therefore affect the "payoffs" associated with a heavy household work burden: time spent on household work can generate positive or negative feelings, depending on the extent to which a woman deems that her role in the household should (or should not) be in accord with patriarchal notions about women's role within the household.

This paper makes two contributions to the literature. First, we develop an analytical framework that explores the linkages between a woman's identity, her time spent on household work, and her SWB. Second, we empirically test the conditioning effect of a woman's choice of identity—proxied by her agreement with several statements reflecting patriarchal notions about women's role within the household—on the relationship between her time spent in household work and her SWB. We analyze primary data collected in rural Bangladesh in early 2014 using both ordinary least squares (OLS) and generalized maximum entropy (GME) regression. Our findings suggest that, among women who strongly disagree with patriarchal notions of gender roles, higher levels of household work are associated with lower levels of SWB. However, among women who strongly agree with patriarchal notions of gender roles, higher levels of household work are associated with higher levels of SWB.

The paper is organized as follows. Section two presents the analytical framework and the social context of rural Bangladesh. Section three discusses our empirical methodology, while section four describes the data as well as trends in SWB, women's attitudes about gender roles, and time use of rural women and men. Section five presents the results. A summary and discussion of policy implications conclude the paper.



## 2. ANALYTICAL FRAMEWORK AND SOCIAL CONTEXT

Based largely on insights from psychology, economists have recently begun to embrace the notion of identity as useful for understanding patterns of social interaction.<sup>3</sup> In a seminal paper on the topic, Akerlof and Kranton (2000) provide a framework that incorporates identity—defined as a person’s self-image—into a utility-maximizing model of behavior, which has been used to explain several economic outcomes (for example, Akerlof and Kranton [2002] on educational outcomes; Akerlof and Kranton [2005, 2008] on workers’ effort and organization). Our study builds on this work.

The Akerlof–Kranton (AK) model is based on the idea that a person’s behavior is guided by her perceived membership in different groups, or social categories, based on physical or nonphysical characteristics, and the extent to which she personifies the ideal behavior and attributes set forth by society for individuals similar to her. Formally, the utility  $U$  of person  $j$  depends on her identity  $I_j$ , her own actions  $\mathbf{a}_j$ , and others’ actions  $\mathbf{a}_{-j}$ :<sup>4</sup>

$$U_j = U_j(\mathbf{a}_j, \mathbf{a}_{-j}, I_j). \quad (1)$$

Person  $j$ ’s identity  $I_j$  in turn depends on her own social categories  $\mathbf{c}_j$  and the extent to which her attributes  $\boldsymbol{\varepsilon}_j$  and actions  $\mathbf{a}_j$ , as well as others’ actions  $\mathbf{a}_{-j}$ , correspond to the ideal characteristics and behaviors associated with social prescriptions  $\mathbf{P}$ :

$$I_j = I_j(\mathbf{a}_j, \mathbf{a}_{-j}; \mathbf{c}_j, \boldsymbol{\varepsilon}_j, \mathbf{P}). \quad (2)$$

Another way to think about the function  $I_j(\cdot)$  is that it gives the social status accorded to person  $j$ , based on her own perception of her social categories  $\mathbf{c}_j$ , and the extent to which she meets society’s expectation  $\mathbf{P}$  for what a person of her social categories should be and do. Hence, a woman who perceives herself to be a “good housewife” and acts accordingly by spending long hours on household work will experience an enhanced payoff—that is, derive greater utility—from her actions. This payoff also depends on the degree to which other members of society approve (or disapprove) of person  $j$ ’s behavior. In the preceding example, behaving as society deems appropriate for a good housewife (spending long hours on household work) results in social approval, which further increases her utility.

In this paper, we adapt the AK model to study rural women in Bangladesh, whose lives have been shaped by a long-standing system of patriarchy that has traditionally limited women’s mobility outside their homes, undervalued women’s labor contributions, and made it difficult for women to exercise their property rights (Agarwal 1994; Kieran et al. 2015). In particular, we focus on one specific manifestation of patriarchy in rural Bangladesh: the unequal division of household work between men and women (Zaman 1995; Hossain, Bose, and Ahmad 2004).

In the AK model, a woman is incentivized to behave in socially “acceptable” ways by means of expressed social disapproval and even ostracism when such norms are violated. This point is supported by several studies finding that women in Bangladesh who challenge traditional gender roles by engaging in work outside their homes often face social sanctions such as personal shaming or even intimate partner violence (Schuler et al. 1996; Schuler, Hashemi, and Badal 1998; Feldman 2001; Kabeer, Mahmud, and Tasneem 2011). Nonetheless, it should be noted that behaviors such as these vary widely within Bangladesh, depending on household circumstances and community norms.<sup>5</sup> Alternatively, factors related

<sup>3</sup> For the psychological underpinnings of social identity theory, see Tajfel and Turner (1979).

<sup>4</sup> Since  $\mathbf{a}_j$  and  $\mathbf{a}_{-j}$  determine  $j$ ’s consumption of goods and services, Equation 1 conforms to standard economic expectations for a utility function.

<sup>5</sup> For instance, Koenig et al. (2003) find that women’s autonomy and membership in credit and microfinance groups are associated with higher risks of intimate partner violence only in the most culturally conservative areas of Bangladesh. Similarly, Heath (2014) finds that working for pay is positively correlated with intimate partner violence in rural Bangladesh only among women who married at a young age or have low levels of education.

to a person's identity may lead her to challenge certain socially prescribed behavior. For instance, among Bangladeshi women in poor households, faced with the choice of maintaining their social status or meeting their subsistence needs by behaving in socially "unacceptable" ways, many choose the latter by engaging in agricultural field labor alongside men or working outside the home such as in garment and shrimp processing factories (Zaman 1995; Kabeer 2001; Hossain et al. 2004; Mottaleb and Sonobe 2011).<sup>6</sup> Such studies suggest that women's identities in Bangladesh are not homogenous and do not uniformly conform to patriarchal norms. Rather, there persists certain "contested images" of gender that permit women (and men) to shift and choose their own identity in accordance with their own interests (White 1992).

Moreover, although women in Bangladesh define themselves largely in terms of their membership in a family, they also value independence. Devine, Camfield, and Gough (2008), for instance, emphasize the critical importance of the ability to manage households, raise children well, and support aging parents in the descriptions many Bangladeshi women offer of their personal well-being. Yet they also note the importance of financial independence and mobility in women's statements regarding their quality of life.<sup>7</sup>

To allow for differences in women's identities, we assume in our framework that women in Bangladesh assign themselves to two different social categories, depending on their personal beliefs and attitudes about gender roles. Those whose personal beliefs and attitudes about gender roles reflect patriarchal values are considered to have "patriarchal attitudes" and belong to group  $c_p \in \mathbf{C}$ . Women whose personal beliefs and attitudes do not reflect patriarchal values are said to have "egalitarian attitudes" and belong to group  $c_e \in \mathbf{C}$ . Further, we assume that whether a woman has patriarchal or egalitarian beliefs and attitudes may not be observed by other members of her society.<sup>8</sup> Social prescriptions enter our framework in terms of the traditional intrahousehold division of labor. For simplicity, we focus on a single expression of a woman's actions in relation to the traditional intrahousehold division of labor: the time she spends on household work, represented as  $w_j \in \mathbf{a}_j$ .

Formally, the relationship between person  $j$ 's utility  $U_j$  and the time she spends on household work  $w_j$  may be represented as follows:

$$\frac{dU_j}{dw_j} = \overbrace{\frac{\partial U_j}{\partial a_j} \frac{da_j}{dw_j}}^{\text{health effect}} + \overbrace{\frac{\partial U_j}{\partial a_j} \frac{\partial I_j}{\partial a_j} \frac{da_j}{dw_j}}^{\text{attitude effect}} + \overbrace{\frac{\partial U_j}{\partial a_j} \frac{\partial I_j}{\partial a_{-j}} \frac{da_{-j}}{dw_j}}^{\text{response effect}}. \quad (3)$$

The right-hand side of Equation 3 captures each of the three channels through which the time person  $j$  spends on household work affects her utility: (1) the effect of  $w_j$  on her physical health (health effect); (2) the effect of  $w_j$  on her identity stemming from her personal attitudes about gender roles (attitude effect); and (3) the effect of  $w_j$  on her utility stemming from others' responses to her behavior (response effect).

The first term (health effect) on the right-hand side of Equation 3 reflects the effect of the time person  $j$  spends on household work on her physical health, independent of any identity effects. On one hand, an increase in time spent on household work may enhance a person's health through effects related to increased production (for example, cooked meals, well-fed children, and so on).<sup>9</sup> Past a critical

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<sup>6</sup> Similar changes can also be seen on a larger scale. Jaim and Hossain (2011) show that women's share of the agricultural labor force in Bangladesh rose from 19 percent to 34 percent between 1999 and 2006.

<sup>7</sup> See also World Bank (2008) for discussion of the 2006 World Bank Gender Norms Survey in Bangladesh, which also suggests changing views among women regarding gender roles and relations.

<sup>8</sup> The intuition for this assumption is that women may hold certain personal beliefs without necessarily acting on them. Hence, women can still comply with traditional gender norms and be perceived by others as behaving according to social expectations, even if the women themselves do not personally believe in them.

<sup>9</sup> It is important to note that the time a woman spends on household work affects her utility not only through the production and consumption of household goods and services (for example, higher quality of care for family members) but also through the process of doing the activities themselves (Floro 1995).

threshold level, however, the mental and physical stress of working long hours may outweigh the positive effects of increased production. Moreover, since time is a finite resource, an increase in time spent on household work necessarily requires a reduction in time spent on other activities, such as paid work, sleep, or leisure.

The second term (attitude effect) captures the effect of person  $j$ 's time spent on household work on her identity stemming from her personal perception of this time. Whether person  $j$  experiences this time favorably or unfavorably depends on the extent to which her personal beliefs about gender roles conform to the traditional gender division of labor—that is, whether she has patriarchal or egalitarian attitudes. Spending fewer hours on household work leads to negative emotions, such as anxiety, shame, or humiliation, for women with patriarchal attitudes. However, for women with egalitarian attitudes, fewer hours spent on household work is associated with positive emotions, such as satisfaction and accomplishment.

The third term (response effect) reflects the impact on person  $j$ 's utility of others' responses to the time person  $j$  spends on household work. We expect this effect to be positively associated with  $w_j$ . In other words, longer hours of household work generates praise or approval for person  $j$ , while shorter hours brings about scorn, public humiliation, or even violence against the woman.

Table 2.1 summarizes the channels through which changes in a woman's time spent on household work affect her utility. The overall impact on a woman's utility will depend on the relative magnitudes of the three effects. For example, in Bangladesh, where social expectations often lead women to shoulder heavy work burdens, it is plausible that a decrease in a woman's time spent on household work would positively affect her health as she has more time for paid work or for socialization. However, for a woman with patriarchal attitudes, the benefits of spending fewer hours on household work may be offset or even dominated by the effects of spending fewer hours on household work on her identity (since spending fewer hours on household work runs counter to patriarchal notions about the intrahousehold division of labor). Hence, it is possible that the losses in utility associated with a decrease in household work via identity effects might outweigh any gains in utility brought about by better health. It is in this manner that a woman's internalization of traditional gender norms may conceivably lead her to behave in such a way as to reinforce existing gender inequalities.

**Table 2.1 Predicted effects of household work on utility**

Health effect	Attitude effect	Response effect
$\frac{\partial U_j}{\partial a_j} \frac{da_j}{dw_j} > 0$	$\frac{\partial U_j}{\partial a_j} \frac{\partial I_j}{\partial a_j} \frac{da_j}{dw_j} > 0$ (patriarchal)	
or	or	$\frac{\partial U_j}{\partial a_j} \frac{\partial I_j}{\partial a_{-j}} \frac{da_{-j}}{dw_j} > 0$
$\frac{\partial U_j}{\partial a_j} \frac{da_j}{dw_j} < 0$	$\frac{\partial U_j}{\partial a_j} \frac{\partial I_j}{\partial a_j} \frac{da_j}{dw_j} < 0$ (egalitarian)	

Source: Authors.

### 3. DATA

The study makes use of primary data collected in early 2014 in rural Bangladesh under the guidance of one of the authors from 107 households in 10 rural villages in three divisions (Barisal, Dhaka, and Khulna). Sample households were randomly selected among previous participants of the 2011–2012 Bangladesh Integrated Household Survey (BIHS), a nationally representative survey of rural Bangladesh conducted by the International Food Policy Research Institute.<sup>10</sup> Teams comprising male and female enumerators visited each selected household and conducted one-on-one interviews with the self-identified, primary adult male and female decision makers: a male enumerator interviewed the man (usually the household head), and a female enumerator interviewed the woman (typically the wife of the head of the household). Information was collected on basic household demographics, time use, and a range of SWB indicators. In total, 107 women and 88 men were interviewed. Due to data collection issues, however, data from several individuals had to be excluded from the analysis.<sup>11</sup> This results in a total sample size of 91 women and 70 men.

For the time use module, enumerators prompted respondents for information on their activities in the past 24 hours in 15-minute increments. To promote better recollection and minimize recall errors, enumerators guided respondents through the recollection of the previous day's activities using, at first, broad questions ("How much time did you spend working yesterday?") before proceeding to more specific prompts ("What sort of work did you perform yesterday?"). Moreover, the interviews were structured around easily recognizable events, such as calls to prayer. Special care was taken to capture overlapping episodes of childcare using diagnostic questions administered directly following the time use module.<sup>12</sup> Additional information about each episode of activity, including respondents' emotional experience, was elicited immediately following the time diary portion of the interview.

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<sup>10</sup> Although our analysis primarily utilizes data from the author's fieldwork, in a few instances we complement this with BIHS data, making special note each time. See Sraboni et al. (2014) for details on the BIHS sample design.

<sup>11</sup> In 15 households, enumerators mistakenly interviewed a woman other than the primary female decision maker, and in one household, the primary female decision maker did not complete the time diary.

<sup>12</sup> Immediately following the time diary portion of the interview, respondents were asked if they had spent any time during the previous day looking after children. If yes, enumerators were instructed to go back and correct the time diary. Moreover, as part of a series of questions designed to garner additional information about each episode of activity during the previous day, respondents were asked if any children (0 to 6 years of age) were present.

## 4. KEY VARIABLES

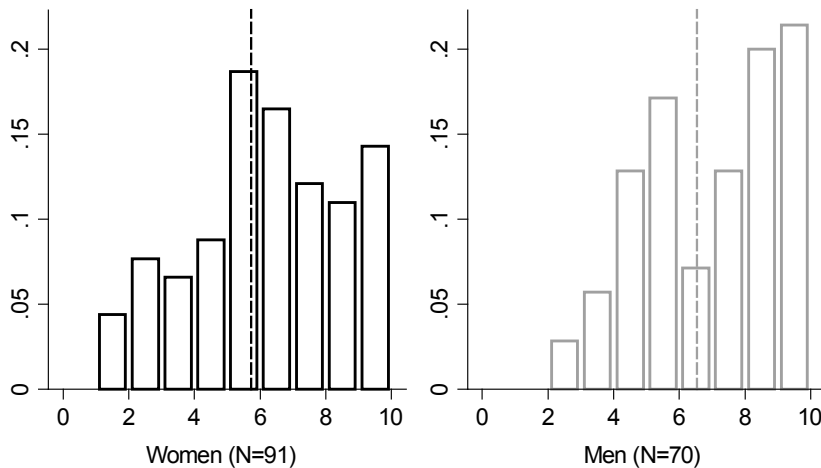
The framework outlined above suggests that the relationship between a woman’s utility and the amount of time she spends on household work may be conditioned by choices she makes about her identity. As utility and identity are both inherently unobservable, in testing this hypothesis we turn to the use of proxy variables.

### Subjective Well-Being

In our analysis, a woman’s utility is approximated by information on two facets of her SWB: evaluative and experienced well-being. *Evaluative well-being* pertains to how people assess their lives, either with respect to a particular domain or as a whole in terms of their overall life satisfaction; *experienced well-being* focuses on the emotions people experience from moment to moment in their lives (Frey and Stutzer 2002; Kahneman and Krueger 2006).<sup>13</sup> Based on several studies demonstrating that people tend to cease participation in activities yielding low levels of SWB, SWB should be a valid proxy for utility (Clark 2001; Phipps, Burton, and Osberg 2001; Guven, Senik, and Stichnoth 2012).<sup>14</sup>

We measure evaluative well-being in terms of overall life satisfaction based on the question “Overall, how satisfied are you with life as a whole these days?” Responses were given on a 10-point Likert scale, ranging from 1 (“not at all satisfied”) to 10 (“completely satisfied”). Figure 4.1 shows the distribution of responses among sampled men and women. On average, women report a statistically significantly (at the 95 percent confidence level) lower level of life satisfaction (5.7) than men (6.5).

**Figure 4.1 Overall life satisfaction by gender**



Source: Authors’ calculations based on primary data collected in 2014.

Note: Responses were given on a 10-point Likert scale, ranging from 1 (“not at all satisfied”) to 10 (“completely satisfied”). The dotted line shows the mean values among men and women. The difference is significant at the 95 percent confidence level.

We measure experienced well-being in terms of the proportion of time a person experienced as pleasant during the previous day. Specifically, we calculate the duration-weighted average level of pleasantness reported across all activities a person engaged in during the previous day, based on a series of five questions asked about five different emotions (happiness, sadness, tiredness, pain, and stress) with

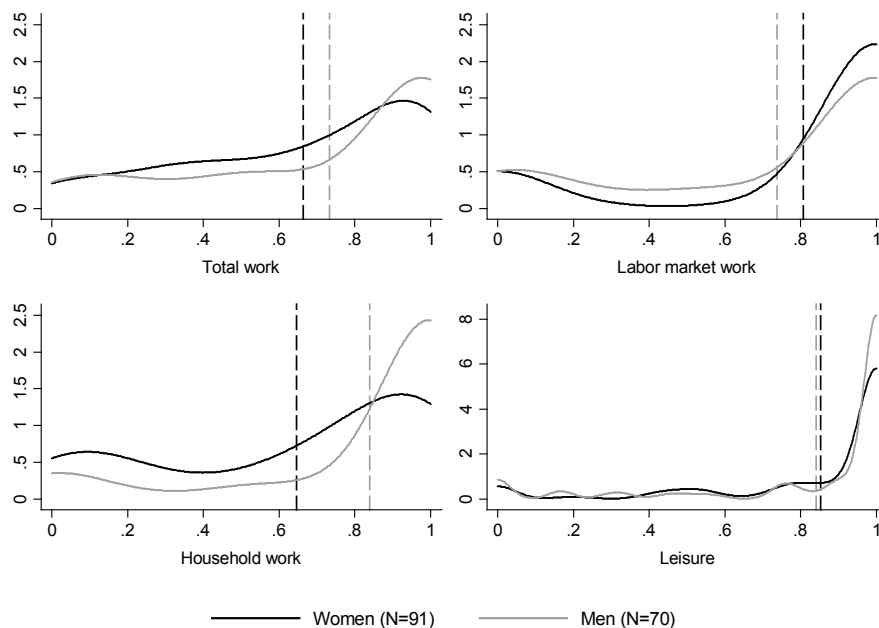
<sup>13</sup> See Frey and Stutzer (2002), Di Tella and MacCulloch (2006), and Kahneman and Krueger (2006) for recent reviews of the SWB literature.

<sup>14</sup> This assumes, of course, that individuals behave so as to “maximize” their utility, which may not be the case in all instances.

respect to each episode of activity (“How often did you feel \_\_\_?”).<sup>15</sup> As before, responses were given on a 10-point Likert scale, ranging from 1 (“did not experience the feeling at all”) to 10 (“experienced the feeling all the time”). An episode is considered unpleasant if the emotion rated as most intense for that episode is negative (sadness, tiredness, pain, or stress) and pleasant if the emotion is positive (happiness).

Figure 4.2 presents kernel density estimates of the proportion of time men and women in our sample report experiencing as pleasant for several different categories of activities. Considering both paid and unpaid (household) work activities together, women report, on average, experiencing a slightly lower proportion (66.3 percent) of the previous 24 hours as pleasant compared to men (73.4 percent), although the difference is not statistically significant. Similarly, when considering paid work or leisure activities, we do not observe a statistically significant gender difference. However, when only household work is considered, the gender difference is stark: women report, on average, experiencing 64.5 percent of their time as pleasant compared to 83.9 percent for men. This experience appears to stem largely from negative feelings associated with domestic activities, such as cooking, cleaning the home, and collecting water and firewood, rather than with care work. In fact, women associate care work with mostly positive emotions—women report, on average, experiencing 91.6 percent of time spent on care work as pleasant compared to 63.5 percent for other types of household work (see Figure A.1 in the appendix). This is consistent with existing evidence of the high value Bangladeshi women place on caring for their families (Devine, Camfield, and Gough 2008; Camfield, Choudhury, and Devine 2009).

**Figure 4.2 Kernel density estimates of the proportion of time experienced as pleasant by gender and type of activity**



Source: Authors’ calculations based on primary data collected in 2014.

Note: See Table 4.2 for the activities included in each category. The dotted lines show the mean values among men and women. Only the difference for household work is statistically significant (at the 99 percent confidence level).

<sup>15</sup> Adapted from Kahneman and Krueger’s (2006) U-index, this measure is formally defined for person  $j$  as

$$P_j = \frac{\sum_k M_{jk} h_{jk}}{\sum_k h_{jk}}, \text{ where } M_{jk} \text{ is an indicator that equals 1 if episode } k \text{ of duration } h_{jk} \text{ is pleasant and 0 otherwise.}$$

## Identity

In our analysis, a woman's identity is proxied by her average level of agreement across several statements reflecting patriarchal notions about gender roles in rural Bangladesh. These statements attempt to capture women's attitudes with respect to several different aspects of life, including the intrahousehold division of labor, children's education, women's roles outside the household, and domestic violence. Responses are given on a 7-point Likert scale, ranging from 1 ("strongly disagree") to 7 ("strongly agree").

Table 4.1 presents the average level of agreement for each statement among sampled men and women. Averaged across all of the statements, women report a statistically significantly (at the 95 percent confidence level) higher level of agreement (4.2) compared to men (3.9). Although men's and women's responses are generally very similar, there are some notable differences on certain statements. For instance, women express, on average, significantly stronger agreement compared to men with respect to several statements touching on matters of proper decorum: (1) "A husband's job is to earn money; a wife's job is to look after the home and family"; (6) "Husbands who help their wives with chores around the house are considered weak by their friends"; and (7) "A woman who speaks her mind when around men other than her husband is considered rude by her friends." On the other hand, both women and men tend to register strong disagreement with statements involving their daughters' fate: (3) "Daughters should be sent to school only if they are not needed to help at home" and (5) "A daughter should not expect to inherit her father's property."<sup>16</sup>

**Table 4.1 Average agreement with patriarchal attitude statements by gender**

Statement	Women	Men
1. A husband's job is to earn money; a wife's job is to look after the home and family.	6.18**	5.51
2. It is more important for boys to get an education than it is for girls.	3.55	3.43
3. Daughters should be sent to school only if they are not needed to help at home.	2.24	2.21
4. If a family can only afford for one child to go to school it should be the son.	3.36	3.33
5. A daughter should not expect to inherit her father's property.	2.14	2.23
6. Husbands who help their wives with chores around the house are considered weak by their friends.	3.63***	2.39
7. A woman who speaks her mind when around men other than her husband is considered rude by her friends.	5.89***	4.33
8. Businesses run by men are more successful than businesses run by women.	5.14	5.58
9. Men make better political leaders than women.	4.43	4.67
10. If a wife earns more money than her husband, it is almost certain to cause problems.	4.47	4.67
11. A good wife never questions her husband's opinions, even if she is not sure she agrees with them.	4.85	4.89
12. A woman should tolerate violence to keep the family together.	5.45	4.91
13. A husband who expresses his affection for his wife is weak.	3.23	2.81
Average, all statements	4.20**	3.92
N	91	70

Source: Authors' calculations based on primary data collected in 2014.

Notes: Responses were given on a 7-point Likert scale, where 1 corresponds to "strongly disagree," 4 to "neither agree nor disagree," and 7 to "strongly agree." T-tests are performed comparing the means of each category of activity between men and women. P-values < 0.10, 0.05, and 0.01 correspond to \*, \*\*, and \*\*\*, respectively.

One caveat to note, however, is that individuals' agreement with these statements may reflect to some extent their perceptions of prevailing norms or what they deem to be socially acceptable responses, rather than their own personal views on the topics (Schuler and Islam 2008). In practice, the responses we observe here likely represent a combination of women's actual attitudes and their perceptions of community norms.

<sup>16</sup> Although laws exist in Bangladesh that support the equal right of all citizens (women included) to own property (via inheritance or purchase), social norms often hinder women's ability to exercise this right (Sarwar, Islam, and Monzoor 2007; Kieran et al. 2015).

## Time Use

Although the focus of our analysis is on household work, broader consideration of how men and women allocated their time across all activities yields some interesting insights into the intrahousehold division of labor. Table 4.2 presents men's and women's time use for several different categories of activities among the sampled households. Note that these calculations include tasks performed as either the primary or secondary activity.<sup>17</sup> Since we are also interested in whether women's attitudes about gender roles influence how they spend their time, Table 4.2 also includes a comparison of time use between those men and women who tend to agree or disagree with the patriarchal attitude statements (where agreement is defined as an average response greater than 4 across all of the statements).

**Table 4.2 Average time allocation by gender, type of activity, and agreement/disagreement with the patriarchal attitude statements**

Activity	Mean hours during previous 24 hours					
	Women			Men		
	All	Agree	Disagree	All	Agree	Disagree
Total work <sup>abcde</sup>	9.72	10.26**	8.81	9.62	9.64	9.60
Labor market work <sup>a</sup>	1.40***	1.40	1.39	7.18	7.56	6.83
Household work <sup>bcde</sup>	8.32***	8.86**	7.42	2.88	2.26*	3.46
Water and firewood collection <sup>b</sup>	0.48***	0.53	0.39	0.01	0.00	0.02
Homestead production <sup>c</sup>	1.44**	1.52	1.31	0.91	0.72	1.08
Care work <sup>d</sup>	0.85***	0.87	0.82	0.34	0.37	0.32
Other household work <sup>e</sup>	5.55***	5.94*	4.90	1.61	1.17*	2.03
Personal care <sup>f</sup>	11.57	11.64	11.44	11.56	11.70	11.43
Leisure <sup>g</sup>	2.49	2.48	2.52	2.23	2.44	2.02
Religious activities	1.24***	1.09*	1.49	0.64	0.52	0.74
Ratio of household work to total work	0.88***	0.89	0.86	0.34	0.27*	0.42
<i>N</i>	91	57	34	70	34	36

Source: Authors' calculations based on primary data collected in 2014.

Notes: *T*-tests are performed by comparing the means of each category of activity between men and women (columns 2 and 5) or between men (columns 6 and 7) and women (columns 3 and 4), respectively, who agree or disagree with the patriarchal attitude statements, where agreement is defined as an average response greater than 4 across all of the statements. *P*-values < 0.10, 0.05, and 0.01 correspond to \*, \*\*, and \*\*\*, respectively. <sup>a</sup> Includes work as employed, own business work, farming, construction, fishing, and other work. <sup>b</sup> Includes collecting water and collecting firewood. <sup>c</sup> Includes vegetable gardening and animal husbandry. <sup>d</sup> Includes caring for children and caring for the sick/elderly. <sup>e</sup> Includes cooking; shopping/going to the market; cleaning the home; weaving, sewing, and textile care; and other domestic work. <sup>f</sup> Includes sleeping, eating and drinking, and personal care. <sup>g</sup> Includes traveling (for leisure purposes), watching television, listening to radio, reading, sitting with family, social activities, and other leisure.

Although men and women spend roughly the same amount of time working, men tend to allocate more of their time to labor market work (7.2 hours per day, or 74.6 percent of total work), whereas women tend to allocate the majority of their time to household work (8.3 hours per day, or 85.6 percent of total work). Men and women, on average, spend similar amounts of time on leisure and personal care. Interestingly, women spend nearly twice as much time on religious activities as men.

While the small sample size limits our ability to assess general trends, Table 4.2 also suggests men's and women's agreement with the patriarchal attitude statements may be correlated with the amount of time they spend on certain categories of work. For example, women who tend to agree with the statements tend to spend more time on household work compared to those who tend to disagree, particularly on domestic activities such as cooking, going to the market, and cleaning. Similarly, men who tend to disagree with the statements tend to spend more time on household work compared to those who tend to agree.

<sup>17</sup> Secondary activities receive equal weight as primary activities.



## 5. EMPIRICAL SPECIFICATION

We investigate the relationship between women’s SWB, time spent on household work, and identity by estimating the following equation:

$$SWB_j = \beta_0 + \beta_1 w_j + \beta_2 I_j + \beta_3 (w_j \times I_j) + \beta_4 \mathbf{X}_j + \varepsilon, \quad (4)$$

where the dependent variable,  $SWB_j$ , serves as our proxy for utility. The explanatory variables of interest are person  $j$ ’s time spent on household work during the previous day,  $w_j$ ; her average level of agreement across the patriarchal attitude statements,  $I_j$ , which serves as our proxy for identity; and the interaction,  $w_j \times I_j$ , that serves as a formal test of the (null) hypothesis that women’s attitudes about gender roles do not condition the relationship between women’s SWB and household work. Rejection of this hypothesis occurs if  $\beta_3$  is statistically significant, that is, if the slope of the relationship between women’s SWB and the time they spend on household work differs according to how strongly their personal attitudes about gender roles conform to patriarchal norms. The model also includes a set of relevant individual- and household-level control variables,  $\mathbf{X}_j$ , including life-cycle stage (proxied by age and age-squared), education, marital status, occupation type, socioeconomic status, and household composition. See Table A.1 in the appendix for full definitions and summary statistics for all of these variables.

A few caveats must be noted about our study. First, the sample size for our analysis is very small (91 women). Second, our sample is disproportionately representative of the lower portion of the income distribution: 58.2 percent of the sampled respondents come from households classified as poor, based on the “lower poverty line” estimates by the Bangladesh Bureau of Statistics (2011). To account for these issues we estimate our empirical model using both OLS and GME regression.<sup>18</sup> GME is the most appropriate approach because it does not require making restrictive assumptions about the distribution of the error terms, unlike traditional OLS models (Golan, Judge, and Miller 1996; Golan 2006). Finally, since the data we analyze are cross-sectional, the results discussed below should be interpreted only as evidence of correlation between a woman’s SWB and time spent on household work, rather than as an indication of a causal relationship between the two.

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<sup>18</sup> We follow the psychology literature and treat life satisfaction as a cardinal indicator (Ferrer-i-Carbonell and Frijters 2004; Stutzer 2004; Knight, Song, and Gunatilaka 2010; Knight and Gunatilaka 2012). The results obtained by treating it as an ordinal indicator and estimating Equation 4 using ordered probit regression do not significantly differ from those shown below (see Table A.2 in the appendix).

## 6. RESULTS

We begin our analysis by estimating two specifications of Equation 4. In model 1, the dependent variable (and our proxy for utility) is a woman's life satisfaction; in model 2, the dependent variable is the proportion of time a woman experienced as pleasant during the previous 24 hours. As noted previously, we estimate all model specifications using both OLS and GME regression. Our discussion, however, concentrates on the GME results.

Table 6.1 presents the estimation results. For both models, the coefficient estimates for household work are negative and statistically significant, which implies that spending longer hours on household work is associated with lower levels of SWB. More importantly, however, the coefficient estimates for the interaction terms (between household work and agreement with the patriarchal attitude statements) are statistically significant as well. Thus, our results correspond to the predictions of our analytical framework and offer preliminary evidence that we can reject the (null) hypothesis that women's attitudes about gender roles do not condition the relationship between women's SWB and household work.

**Table 6.1 OLS and GME regression results for models 1 and 2**

Variable	Model 1		Model 2	
	OLS	GME	OLS	GME
	Life satisfaction	Life satisfaction	Proportion of time experienced as pleasant	Proportion of time experienced as pleasant
Household work	-0.770 (0.526)	-0.798* (0.425)	-0.109** (0.047)	-0.112** (0.057)
Agreement w/patriarchal attitude statements	-2.184** (0.955)	-2.227** (0.877)	-0.342*** (0.110)	-0.348*** (0.118)
Household work × Agreement w/patriarchal attitude statements	0.214* (0.117)	0.221** (0.101)	0.029** (0.012)	0.030** (0.014)
Head of household	-1.304** (0.621)	-1.313** (0.555)	0.129 (0.084)	0.123* (0.075)
Age	0.172 (0.215)	0.175 (0.177)	-0.043* (0.022)	-0.044* (0.024)
Age-squared/100	-0.203 (0.262)	-0.207 (0.207)	0.046* (0.025)	0.047* (0.028)
Primary-level education or higher	0.270 (0.611)	0.267 (0.546)	-0.033 (0.084)	-0.035 (0.073)
Works on farm	0.593 (0.584)	0.543 (0.496)	0.117 (0.072)	0.117* (0.067)
% children ages 0–4 in household	2.744 (2.336)	2.749 (2.104)	0.115 (0.305)	0.120 (0.283)
% children ages 5–14 in household	0.273 (1.457)	0.205 (1.280)	0.068 (0.203)	0.080 (0.172)
In-laws live in household	-0.873 (0.740)	-0.915 (0.681)	-0.034 (0.119)	-0.034 (0.091)
Access to electricity	-0.030 (0.595)	-0.008 (0.503)	0.074 (0.077)	0.075 (0.068)
(log) Annual per capita consumption	1.104** (0.532)	1.104** (0.491)	0.023 (0.062)	0.025 (0.066)
Adjusted/pseudo R-squared	0.063	0.051	0.088	0.050
N	91	91	91	91

Source: Authors' calculations based on primary data collected in 2014 and 2011–2012 BIHS data.

Notes: Standard errors in parentheses. P-values < 0.10, 0.05, and 0.01 correspond to \*, \*\*, and \*\*\*, respectively. OLS = ordinary least squares; GME = generalized maximum entropy.

Given the conditional nature of the relationship between household work and SWB, interpreting these results based on the coefficient estimates alone is complicated. Thus, in Table 6.2 we provide estimates of the marginal effects (MEs) of household work on SWB at representative values of agreement with the patriarchal attitude statements corresponding to the response scale used in the survey questionnaire. The MEs reflect the change in SWB associated with an additional hour spent on household work (that is, the slope of the relationship between SWB and household work) at different levels of agreement with the patriarchal attitude statements.

**Table 6.2 Marginal effects of household work on life satisfaction and the proportion of time experienced as pleasant at representative values of agreement with the patriarchal attitude statements**

Agreement w/patriarchal attitude statements	Model 1		Model 2	
	OLS Life satisfaction	GME Life satisfaction	OLS Proportion of time experienced as pleasant	GME Proportion of time experienced as pleasant
1	-0.556 (0.412)	-0.577 (0.326)	-0.080** (0.036)	-0.082* (0.044)
2	-0.341 (0.299)	-0.356 (0.230)	-0.050* (0.026)	-0.052 (0.031)
3	-0.127 (0.193)	-0.136 (0.140)	-0.021 (0.017)	-0.022 (0.019)
4	0.088 (0.112)	0.085 (0.085)	0.009 (0.013)	0.007 (0.011)
5	0.302** (0.123)	0.306** (0.124)	0.038** (0.018)	0.037** (0.017)
6	0.517** (0.212)	0.527** (0.210)	0.068** (0.027)	0.067** (0.028)
7	0.731** (0.320)	0.748** (0.306)	0.097** (0.038)	0.097** (0.041)

Source: Authors' calculations based on primary data collected in 2014 and 2011–2012 BIHS data.

Notes: Values in column 1 correspond to the response scale used for the patriarchal attitude questions (1 corresponds to “strongly disagree,” 4 to “neither agree nor disagree,” and 7 to “strongly agree”). Standard errors in parentheses. P-values < 0.10, 0.05, and 0.01 correspond to \*, \*\*, and \*\*\*, respectively. OLS = ordinary least squares; GME = generalized maximum entropy.

Examination of the MEs reveals that the sign of the relationship between a woman's SWB and her time spent on household work changes from negative to positive depending on her agreement with the patriarchal attitude statements. Specifically, the MEs associated with low values of agreement (1, 2, and 3) are negative and generally statistically insignificant, with the exception of the lowest value of agreement (1) in model 2, for which the ME is weakly significant (at the 10 percent confidence level). In contrast, the MEs associated with high values of agreement (5, 6, and 7) are positive and strongly statistically significant. In other words, *higher* levels of household work are associated with *lower* levels of SWB among those women who strongly *disagree* with the patriarchal attitude statements, but among women who strongly *agree* with the patriarchal attitude statements *higher* levels of household work are associated with *higher* levels of SWB.

The pattern observed in the MEs is entirely consistent with the predictions of our analytic framework. Recall that the MEs reflect the net impact of the three hypothesized channels (health, attitude, and response effects) through which a woman's household work might have an impact on her SWB (or, more generally, her utility). Thus, the sign of the ME depends on which of the three effects dominates. The pattern observed in the MEs implies that the three effects generally offset each other at modest to low levels of agreement with the patriarchal attitude statements, resulting in MEs that are not statistically different from zero. It is only at larger (extreme) values of agreement with the patriarchal attitude statements (either low or high) that the combined effects of household work on SWB yield statistically significant (negative or positive) outcomes.

In sum, the significance of the interaction term between household work and agreement with the patriarchal attitude statements in models 1 and 2 implies that a woman's identity does, in fact, condition the relationship between her SWB and the amount of household work she performs. However, our results suggest that this is true only for women whose identities strongly reflect either patriarchal or egalitarian notions of gender roles. Hence, we can only conditionally reject our (null) hypothesis.

### **Robustness Tests**

One possible point of contention in models 1 and 2 is that we do not control for how a woman's SWB might be affected by the responses of others in her community to the amount of time she spends on household work (that is, the response effect in Table 2.1). Depending on the magnitude of this effect, models 1 and 2 might suffer from omitted-variable bias. To address this problem, we calculate the average level of agreement across all of the patriarchal attitude statements among other sampled men and women in the same village (excluding a woman's own response) and estimate four extended model specifications (models 3–6) that include this measure as an additional control variable (referred to as "village attitudes"). The intuition behind this is that communities in which people agree with patriarchal attitude statements may be more prone to imposing social sanctions on women who work fewer household work hours than in less conservative communities. Models 5 and 6 include not only the village attitudes variable but also an interaction term (between village attitudes and household work) to investigate the possibility that village attitudes also condition the relationship between SWB and household work. Table 6.3 presents the estimation results.

In all four models, the coefficient estimates associated with village attitudes (including the interaction terms) are statistically insignificant. Furthermore, the coefficient estimates obtained for household work, patriarchal-conforming attitudes, and the interaction term in models 3 and 4 do not significantly differ from the estimates produced in models 1 and 2, respectively. Although there is some variation in the magnitudes of the coefficient estimates for our primary variables of interest between models 1 and 5 and between models 2 and 6, these results are likely spurious and the result of misspecification, due to the inclusion of the statistically insignificant interaction between village attitudes and household work. In sum, the results from models 3 through 6 generally confirm our earlier results. Thus, the inability to control for the response effect of identity on SWB in models 1 and 2 does not appear to have biased our results.

**Table 6.3 OLS and GME regression results for models 3 through 6**

Variable	Model 3		Model 4		Model 5		Model 6	
	OLS	GME	OLS	GME	OLS	GME	OLS	GME
	Life satisfaction	Life satisfaction	Proportion of time experienced as pleasant	Proportion of time experienced as pleasant	Life satisfaction	Life satisfaction	Proportion of time experienced as pleasant	Proportion of time experienced as pleasant
Household work	-0.799 (0.529)	-0.832* (0.430)	-0.109** (0.048)	-0.112* (0.058)	-2.649 (2.066)	-2.666 (1.683)	-0.298 (0.275)	-0.290 (0.228)
Agreement w/patriarchal attitude statements	-2.225** (0.952)	-2.281*** (0.881)	-0.342*** (0.111)	-0.347*** (0.119)	-1.959** (0.949)	-1.994** (0.905)	-0.315*** (0.119)	-0.322*** (0.122)
Household work × Agreement w/patriarchal attitude statements	0.220* (0.117)	0.227** (0.102)	0.029** (0.012)	0.030** (0.014)	0.193 (0.116)	0.198* (0.104)	0.027** (0.013)	0.027* (0.014)
Village attitudes	0.464 (1.208)	0.539 (1.077)	-0.001 (0.186)	-0.005 (0.145)	-3.617 (4.330)	-3.536 (3.748)	-0.417 (0.599)	-0.401 (0.507)
Household work × Village attitudes					0.483 (0.495)	0.481 (0.425)	0.049 (0.072)	0.046 (0.057)
Head of household	-1.312** (0.629)	-1.325** (0.554)	0.129 (0.084)	0.123* (0.075)	-1.200* (0.628)	-1.212** (0.559)	0.141 (0.086)	0.134* (0.076)
Age	0.167 (0.216)	0.168 (0.177)	-0.043* (0.022)	-0.044* (0.024)	0.185 (0.210)	0.188 (0.177)	-0.041* (0.022)	-0.042* (0.024)
Age-squared/100	-0.199 (0.262)	-0.200 (0.206)	0.046* (0.026)	0.047* (0.028)	-0.218 (0.256)	-0.221 (0.206)	0.044* (0.026)	0.045 (0.028)
Primary-level education or higher	0.281 (0.618)	0.278 (0.545)	-0.033 (0.085)	-0.035 (0.073)	0.301 (0.620)	0.297 (0.542)	-0.031 (0.083)	-0.032 (0.073)
Works on farm	0.576 (0.592)	0.527 (0.496)	0.117 (0.071)	0.117* (0.067)	0.516 (0.599)	0.471 (0.495)	0.111 (0.071)	0.111* (0.067)
% children ages 0–4 in household	2.720 (2.370)	2.721 (2.100)	0.115 (0.309)	0.120 (0.283)	2.767 (2.301)	2.761 (2.086)	0.120 (0.298)	0.128 (0.282)
% children ages 5–14 in household	0.195 (1.493)	0.116 (1.290)	0.068 (0.214)	0.081 (0.174)	0.268 (1.493)	0.227 (1.282)	0.076 (0.216)	0.091 (0.173)

**Table 6.3 Continued**

Variable	Model 3		Model 4		Model 5		Model 6	
	OLS	GME	OLS	GME	OLS	GME	OLS	GME
	Life satisfaction	Life satisfaction	Proportion of time experienced as pleasant	Proportion of time experienced as pleasant	Life satisfaction	Life satisfaction	Proportion of time experienced as pleasant	Proportion of time experienced as pleasant
In-laws live in household	-0.891 (0.744)	-0.943 (0.681)	-0.034 (0.123)	-0.034 (0.092)	-0.732 (0.720)	-0.776 (0.691)	-0.018 (0.115)	-0.017 (0.093)
Access to electricity	0.018 (0.626)	0.044 (0.514)	0.074 (0.078)	0.075 (0.069)	0.006 (0.631)	0.042 (0.510)	0.073 (0.079)	0.073 (0.069)
(log) Annual per capita consumption	1.077** (0.532)	1.069** (0.494)	0.023 (0.065)	0.025 (0.067)	1.114** (0.547)	1.118** (0.492)	0.027 (0.067)	0.028 (0.067)
Adjusted/pseudo R-squared	0.053	0.050	0.076	0.049	0.053	0.049	0.071	0.048
N	91	91	91	91	91	91	91	91

Source: Authors' calculations based on primary data collected in 2014 and 2011–2012 BIHS data.

Notes: Standard errors in parentheses. P-values < 0.10, 0.05, and 0.01 correspond to \*, \*\*, and \*\*\*, respectively. OLS = ordinary least squares; GME = generalized maximum entropy.

## 7. CONCLUSION

Existing time use research provides evidence of the existence of gender disparities in the time men and women spend on household work and the potential costs imposed by those disparities on the well-being of women, as well as that of their children and other family members. Few studies, however, consider the impact of social expectations governing gender roles on the relationship between women's well-being and their unpaid work burden.

In this study, we extend the literature on women's time use by empirically testing the hypothesis that a woman's identity conditions the relationship between her well-being and the time she spends on household work, using an analytical framework based on Akerlof and Kranton (2000). Our results offer conditional support for that hypothesis, based on a sample of 91 women from 10 villages in rural Bangladesh. *Higher* levels of household work are associated with lower levels of SWB among women who disagree with patriarchal notions of gender roles, while the opposite is true for women who agree with patriarchal notions of gender roles. Importantly, this pattern holds only when a woman strongly identifies with patriarchal or egalitarian notions of gender role. In such circumstances, our results suggest that a woman's identity may alter the payoffs (in terms of well-being) associated with how much time she spends on household work, though we lack the panel data necessary to establish causality in this relationship.

From a policy standpoint, our study demonstrates the importance of considering identity when designing programs for addressing gender inequalities in the time men and women spend on household work. For programs aimed at lessening women's work burden to be effective, the social context of women's roles and responsibilities within the household must be taken into consideration. That is, policy must address both the material constraints on women's livelihoods and the social constraints.

This concern is particularly relevant in societies such as Bangladesh, in which prevailing patriarchal notions of gender roles often come to be reflected in women's identities. In such situations, our results suggest that women's identities may actually lead to behaviors that reinforce existing gender inequalities. Effectively addressing such disparities therefore requires changing how women (and men) personally define themselves and their roles within the household and society. Changes in women's (and men's) self-perceptions are unlikely to occur quickly. Programs aimed at the reduction and redistribution of women's unpaid work burden should consider incorporating interventions to promote gradual changes in men's and women's perceptions of gender roles through community-based education, mass media, or other means of information sharing (for example, Bernard et al. 2015; La Ferrara 2015; Haylock et al. 2016; Read-Hamilton and Marsh 2016).

## APPENDIX: SUPPLEMENTARY TABLES AND FIGURE

**Table A.1 Full descriptions and mean values for all variables used in the analysis (women only)**

Variable	Definition	Mean
Access to electricity†	1 = Household is connected to electrical grid.	0.297
Annual per capita consumption ( <i>taka</i> )†	Includes expenditures on food consumption (for example, food purchased from market, food produced at home, food received as a gift, and meals purchased outside the home), nonfood consumption (for example, daily use items, clothing and housewares, education expenses, work-related expenses, and housing expenses), and durable goods.	16,920
Age	Age of primary female decision maker.	38.9
Farming	1 = Primary female decision maker reports agricultural work as her primary economic activity during past seven days.	0.725
Head of household	1 = Primary female decision maker reports being head of household.	0.275
Household work (hours)	Hours spent on collecting water and collecting firewood, vegetable gardening, animal husbandry, caring for children, caring for the sick/elderly, cooking, shopping/going to the market, cleaning the home, weaving/sewing/textile care, and other domestic work.	8.32
In-laws live in household	1 = At least one member of the primary female decision maker's parents-in-law or grandparents-in-law lives in the household.	0.121
Life satisfaction	Average level of life satisfaction based on the question "Overall, how satisfied are you with life as a whole these days?"	5.73
Patriarchal attitudes	Average level of agreement across all of the patriarchal attitude statements.	4.20
% children ages 0–4 in household	Share of girls and boys four years of age or younger living in the household.	0.085
% children ages 5–14 in household	Share of girls and boys ages 5–14 living in the household.	0.268
Proportion of time experienced as pleasant	The duration-weighted average level of pleasantness reported across all activities a person engaged in during the previous day, based on a series of five questions asked about five different emotions (happiness, sadness, tiredness, pain, and stress) with respect to each episode of activity ("How often did you feel ___?").	0.66
Primary education or higher	1 = Primary female decision maker has completed a primary level of education or higher.	0.495
Village attitudes	Average level of agreement across all of the patriarchal attitude statements among other sampled men and women in the same village.	4.06

Source: Authors' calculations based on primary data collected in 2014 or where indicated (†) on 2011–2012 BIHS data (Ministry year).

Notes: The average exchange rate of taka per US\$1 for 2011 was 74.2 (World Bank 2016).



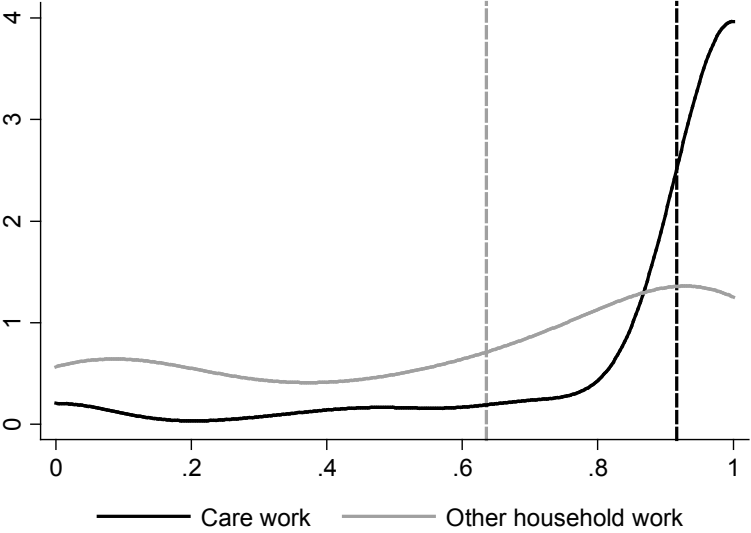
**Table A.2 Ordered probit results for models 1, 3, and 5**

Variable	Model 1	Model 3	Model 5
	Ordered probit	Ordered probit	Ordered probit
	Life satisfaction	Life satisfaction	Life satisfaction
Household work	-0.357 (0.254)	-0.371 (0.255)	-1.293 (0.902)
Agreement w/patriarchal attitude statements	-1.032** (0.447)	-1.054** (0.442)	-0.928** (0.444)
Household work × Agreement w/patriarchal attitude statements	0.100* (0.056)	0.102* (0.056)	0.089 (0.056)
Village attitudes		0.215 (0.543)	-1.814 (1.898)
Household work × Village attitudes			0.240 (0.215)
Head of household	-0.653** (0.269)	-0.657** (0.271)	-0.606** (0.271)
Age	0.104 (0.097)	0.102 (0.097)	0.112 (0.094)
Age-squared/100	-0.120 (0.117)	-0.118 (0.117)	-0.129 (0.114)
Primary-level education or higher	0.172 (0.269)	0.177 (0.270)	0.189 (0.271)
Works on farm	0.284 (0.278)	0.276 (0.280)	0.248 (0.282)
% children ages 0–4 in household	1.677 (1.130)	1.661 (1.142)	1.704 (1.110)
% children ages 5–14 in household	0.186 (0.648)	0.148 (0.664)	0.186 (0.666)
In-laws live in household	-0.445 (0.317)	-0.455 (0.317)	-0.379 (0.307)
Access to electricity	-0.011 (0.267)	0.012 (0.275)	0.003 (0.278)
(log) Annual per capita consumption	0.551** (0.233)	0.538** (0.235)	0.560** (0.241)
Pseudo <i>R</i> -squared	0.054	0.054	0.058
<i>N</i>	91	91	91

Source: Authors' calculations based on primary data collected in 2014 and 2011–2012 BIHS data.

Notes: Standard errors in parentheses. P-values < 0.10, 0.05, and 0.01 correspond to \*, \*\*, and \*\*\*, respectively.

**Figure A.1 Kernel density estimate of the proportion of time spent on care work and other types of household work experienced as pleasant**



Source: Authors' calculations based on primary data collected in 2014.

Notes: Women only. The dotted lines show the mean values among care work and other household work. The difference is statistically significant at the 99 percent confidence level.

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