

NIH Public Access

Author Manuscript

J Marriage Fam. Author manuscript; available in PMC 2015 June 01

Published in final edited form as: J Marriage Fam. 2014 June 1; 76(3): 620–637. doi:10.1111/jomf.12108.

Husbands' Participation in Housework and Child Care in India

Nancy Luke, Hongwei Xu^{*}, and Binitha V. Thampi^{**}

Department of Sociology and Criminology, The Pennsylvania State University, 906 Oswald Tower, University Park, PA 16802 (nkl10@psu.edu)

*Survey Research Center, University of Michigan, 426 Thompson St., 216 NU ISR Building, Ann Arbor, MI 48106

^{**}Department of Humanities and Social Sciences, Indian Institute of Technology Madras, Room No. HSB 331, Chennai 600 036, Tamil Nadu, India

Abstract

The authors tested theories of housework among tea plantation workers in India, where women comprise the main part of the workforce and are breadwinners in their families. Analysis of 49 semistructured interviews and survey data from 3,181 female workers revealed that although women were mainly responsible for domestic labor, more than half of husbands usually or sometimes helped their wives with cooking, fuel wood collection, and child care. The analyses revealed a curvilinear relationship between husbands' earnings share and their participation in each task, supporting theories of bargaining and gender display. The probability of male participation decreased to its lowest level when men earned less than their wives. Husbands rarely helped with clothes washing—considered the most feminine task—and their participation did not respond to changes in relative earnings. These results support the authors' argument that patterns of bargaining and gender display will vary depending on the gendered nature of housework tasks within a particular society.

Keywords

families and work; gender; housework/division of labor; non-U.S. families

A wealth of sociological research has found that men's and women's earnings in the labor market are significant predictors of the gendered division of housework. Much of this work supports *bargaining*, or *relative resources*, *theory*, which holds that individuals with greater relative earnings have power to influence decisions within the household, including the distribution of domestic labor (e.g., Brines, 1994; Kan, 2008). With respect to men's involvement in housework, the theory predicts that as women's share of household resources increases, husbands will do more housework. Additional scholarship has found that the bargaining model does not apply when men earn less than their wives. In female-breadwinner couples, men often perform less housework than their relative incomes would predict. The theory of *gender deviance neutralization*, also known as *gender display*, seeks to explain this behavior, arguing that these men counter their gender deviance in the labor market by enacting more traditional gendered behaviors at home, including reducing their participation in housework (e.g., Bittman, England, Folbre, Sayer, & Matheson, 2003;

Greenstein, 2000; Schneider, 2011). Interestingly, research points to the disappearance of male gender display in recent decades, likely because nonbreadwinner husbands have become more egalitarian in their views toward sharing housework (Sullivan, 2011).

Empirical research testing theories of housework has largely been undertaken in Western countries, including the United States, Great Britain, Sweden, and Australia. These countries are characterized by relatively egalitarian gender ideology and norms of behavior (Stickney & Konrad, 2007) as well as expansive marital power for women. There are remarkably few investigations in non-Western contexts, where gender norms are more traditional, and women's power within marriage can be considerably constrained (Coltrane, 2010). In these settings, traditional gender norms often set limits on the household domains in which bargaining can occur (Agarwal, 1997). Some areas of household decision making are strictly sex segregated and off limits to women's inputs regardless of their economic contributions. Other areas are more gender neutral and women have power to negotiate their associated outcomes. The performance of housework is governed by societal norms as well. Some domestic tasks remain strictly within the female sphere within particular societies, and we propose that women cannot negotiate for husbands' participation in these activities regardless of their earnings share. With respect to more gender-neutral tasks regarding which women have more say, we expected husbands' participation to increase with women's relative earnings. Nevertheless, in developing-country contexts where strong norms of male breadwinning persist, we expected male gender display to be pronounced when wives outearn their husbands.

Existing theories of bargaining and gender display need to incorporate the gendered nature of specific housework activities, and therefore studies should examine the determinants of tasks individually. Most previous research has collapsed housework activities into single measures, such as hours involved in a range of chores in a day or week (e.g., Brines, 1994; Schneider, 2011). This generalized view masks areas of household work that could be resistant to women's bargaining power in many non-Western contexts.

To address this gap in existing research, we examined the relationship between spouses' relative earnings and men's participation in multiple female-typed housework tasks in India. We conducted a mixed-methods investigation in a group of tea plantations, where workers have permanently migrated to live in the isolated mountain estates. We chose the unique tea estates setting for an exploration of bargaining power within marriage for two reasons. On the one hand, gender norms and ideology are relatively traditional in the tea estates, as in much of urban and rural India today (Chatterjee, 2001; Luke & Munshi, 2011; Ramu, 1987; Saraff & Srivastava, 2010; Shukla, 1987). Men are expected to be the major decision makers and providers within the family, whereas women remain largely responsible for the domestic sphere, including parenting and housework (Jain & Belsky, 1997; Ramu, 1988; Roopnarine, Talukder, Jain, Joshi, & Srivastav, 1992; Pant, 2000; Saraff & Srivastava, 2010). On the other hand, the gendered division of paid labor on the estates is quite exceptional: Women have access to the most stable, full-time positions, whereas many men work fewer hours or are unemployed. As a result, women are often the chief breadwinners in their families. These features make the tea estates a rare social laboratory that allowed us to examine the

extent to which earnings increase women's bargaining power within the household in a context where societal gender norms potentially limit this power significantly.

Employment opportunities for women in the tea estates do not fully reflect the contemporary Indian context, where women's labor force participation and earnings are generally low (Government of India, 2013). Nevertheless, recent liberalization policies and economic growth in the country are likely to increase women's wage labor and produce more dualearning couples in the coming decades, as has occurred in Western countries over the last half-century. In this sense, the tea estates serves as a useful case study of the future potential for women's employment and breadwinning to alter the division of labor in the domestic sphere.

Theoretical Perspectives

Social scientists have developed *bargaining power*, or *relative resources*, *theory* to explain how access to resources determines decision-making power within households (Agarwal, 1997; Blood & Wolfe, 1960; Malhotra & Mather, 1997; McElroy, 1990). An initial assumption is that men and women differ in their preferences, such as how money should be spent or who should perform housework, and therefore a process of negotiation takes place between them (Schneider, 2011). Bargaining power is not equally distributed across household members but reflects the relative strength of one's "fallback position," or the outside options on which one could fall back in the event the marriage is dissolved. Employment and earnings strengthen an individual's fallback position and afford him or her more power to make important decisions. In support of the bargaining model, studies from across the globe have found that increases in women's relative economic resources have led to use of contraception and prenatal care, investments in child health and education, practice of safe sexual activities, and less spending by husbands on alcohol or cigarettes (e.g., Beegle, Frankenberg, & Thomas, 2001; Bloom, Wypij, & Das Gupta, 2001; Hoddinott & Haddad, 1995; Kenney, 2008; Luke, Goldberg, Mberu, & Zulu, 2011; Luke & Munshi, 2011; Luke & Xu, 2011; Shukla, 1987). With respect to domestic labor, studies from the United States, United Kingdom, and Sweden have found that as women's earnings share increases husbands undertake more housework (Brines, 1994; Evertsson & Nermo, 2004; Kan, 2008; Pinto & Coltrane, 2009).

Many sociologists and feminist economists have criticized the bargaining model for its gender neutrality and assumption that women can translate their incomes into decision-making power across all household domains (Agarwal, 1997; Kabeer, 1997; Kantor, 2003; Malhotra & Mather, 1997; Xu & Lai, 2002). These scholars underscore the importance of societal gender ideology and norms of behavior that can limit the spheres in which bargaining can occur. We theorized that these same constraints on women's bargaining power also apply to various types of housework. Following Rodman (1972; see also Xu & Lai, 2002), we place societies along a continuum of patriarchy characterized by diverging gender norms. In the most egalitarian societies, women's bargaining power extends across most household domains, and outcomes—including the division of housework—are determined in large part by spouses' relative resources. In contrast, in fully patriarchal societies household domains are strictly gender segregated, and the most gendered areas lie

outside the realm of contestation. This extends to housework and child care, where most tasks are defined as naturally or normatively women's responsibilities, and therefore men reject performing them. In such circumstances, wives cannot bargain for husbands' participation regardless of their earnings share. In modified patriarchal societies, such as Greece or India (Rodman, 1972), women's bargaining power is apparent in some household domains but not others. This also applies to housework: Some tasks remain squarely within the female domain and husbands' participation is nonnegotiable, whereas other activities are more gender neutral. For these latter tasks, we expected male participation to respond to increases in wives' earnings share.

In contrast to bargaining theory, societal gender norms are central to the *gender deviance neutralization perspective* on household labor, also known as *gender display theory*. According to this approach, the performance (or nonperformance) of housework is an important means of "doing" or displaying behaviors expected of one's gender (West & Zimmerman, 1987). Qualitative and quantitative studies have found that gender display is most acute when couples do not adhere to the male-breadwinner norm (Greenstein, 1996; Sullivan, 2011). When men earn less than their wives, both spouses attempt to neutralize this gender deviance in the labor market by performing traditional gendered activities at home. For men dependent on their wives economically, this means they will assert, or display, their masculinity by not performing housework. In support of this theory, studies from the United States and Australia have documented a curvilinear relationship between earnings share and housework whereby men perform the least domestic labor when women are the main breadwinners (Bittman et al., 2003; Brines, 1994; Evertsson & Nermo, 2004; Greenstein, 2000; Schneider, 2011).

Recent work has called into question the applicability of gender display theory to men in Western countries, for two main reasons. First, studies using data from the 1970s and 1980s have concluded that, although gender display was real, it was performed by a small group of outliers in lower income strata (Bittman et al., 2003; Sullivan, 2011). Men who contributed no earnings to the household were likely to hold traditional gender attitudes or display other characteristics associated with the avoidance of housework. When these outliers were removed from the sample, the curvilinear relationship between relative earnings and housework disappeared (Bittman et al., 2003); in this case, bargaining theory explained the behavior of most men across the relative earnings distribution. Second, recent studies using data from the 1990s and 2000s have revealed that men no longer practice gender display (Evertsson & Nermo, 2004; Kan, 2008; Schneider, 2011). It has been posited that these developments reflect a distinct change in attitudes among the extreme tail of unemployed men, that, over time, these men adopted egalitarian gender attitudes in line with overall societal norms and undertook more housework than earlier cohorts (Sullivan, 2011).

Studies pointing to an end of male gender display are based exclusively on data from Western countries; however, their findings have implications for investigations of housework in non-Western societies. First, as opposed to a disappearance, we hypothesized that male gender display will be pronounced in most developing-country settings, because traditional gendered norms and ideals—and, therefore, men's motivations for deviance neutralization—remain relatively strong. Furthermore, in comparison to egalitarian societies,

traditional gender attitudes are likely to be held by a larger swath of society. Therefore, the practice of male gender display should extend beyond men with no earnings. We proposed that, as an assertion of their masculinity, men who are employed but earn less than their wives will also refrain from performing housework.

We tested these expanded theories of bargaining and gender display using qualitative and quantitative data from the tea estates in India. Our study began with analysis of semistructured interview data to establish which of four primary female-typed tasks cooking, clothes washing, fuel wood collection, and child care-were situated within the female sphere of responsibility and which were perceived as more gender neutral in our setting. We tested the following three hypotheses using survey data. First, because male participation is nonnegotiable for the most feminine activities, there will be no association between husbands' earnings share and their participation in these tasks. Second, women's resources will afford them greater power to enlist husbands' participation in more genderneutral tasks; however, given continuing expectations of male breadwinning in India, male gender display for these latter tasks will be pronounced. Therefore, we expected a curvilinear relationship between husbands' earnings share and husbands' engagement, such that the probability of participation will decrease for men with the lowest earnings share. Third, gender display will not be limited to the small group of men with no earnings; therefore, across gender-neutral tasks, we expected the curvilinear relationship between husbands' earnings share and their participation to persist once men with no earnings were removed from the analysis.

Setting and Method

Paid and Unpaid Labor in the Tea Estates

The tea estates lie in the High Range, a mountainous area straddling the states of Kerala and Tamil Nadu in southern India. British planters established the plantations in previously uninhabited territory, and they recruited workers from the rural plains of Tamil Nadu. Today, 23 estates belong to one tea company, which employs over 30,000 workers, most of whom are decedents of the original Tamil migrants of three generations ago. The majority of workers are from the lowest caste groups, which continue to experience some of the poorest indicators of socioeconomic status and well-being in the country (International Institute for Population Science & Macro International, 2008). Higher caste groups are also represented on the estates, because they sought year-round, permanent employment on the plantations as well. Unlike other migrant communities worldwide, the tea workers did not settle and assimilate into a new society; they were the primary inhabitants of the area and, given its isolated location, remain so today. Thus, the workers' social organization, norms, and practices largely mirror those of their rural communities, with whom the workers interact extensively. For example, workers continue to marry caste members from their origin communities, and they often visit, send their children to school, and retire there (Luke & Munshi, 2011).

A unique aspect of the tea estates is the gendered employment structure. Women comprise the main labor force, and they are often the chief breadwinners in their families, as has historically been the case throughout the tea sector in Asia (Luke & Munshi, 2011; Philips,

2003). Women are primarily employed in tea leaf plucking, which is demanding manual labor. They work in the fields 9 hours a day Monday to Friday, and half a day on Saturday. Pluckers are paid on a piece-rate basis; they are given a base salary for an expected weight of tea leaves plucked daily and an additional amount for each kilogram above that weight. Women's income is also influenced by tea bush growth (only new leaves are harvested), which varies across fields with climatic conditions and by season. Men are involved in supporting tasks, such as weeding, pruning, and fertilizing the bushes, or in the tea factories, which generally entails fewer hours per day than plucking. Male employment also varies by bush growth and seasonal maintenance requirements. Some men are employed outside the tea company in the small central town, but there are few opportunities given the time and distance needed to travel there each day. In addition, many men are unemployed. At the time of this study, the retirement age was 58 in India, and some women continued to work while their husbands were retired. The presence of many idle men combined with the isolated nature of the estates fosters high levels of alcohol consumption and perpetration of intimate partner violence by men, as has been found to be the case on other tea plantations (Chatterjee, 2001; Luke & Munshi, 2011; Philips, 2003; Samarasinghe, 1993).

To learn about life on the tea estates, we conducted interviews with over 30 key informants, including male and female workers, social workers, and medical staff, during the first phase of fieldwork in 2002. With respect to the division of domestic labor, we learned that, although women were employed longer hours than men, they were responsible for and undertook most of the time-consuming, routine housework tasks, as did their counterparts in their communities of origin. The main tasks mentioned included cooking, clothes washing, fuel wood collection, and child care. Other household members, including husbands, helped with these chores to varying degrees.

With respect to the organization of housework, workers' families live in attached homes, or *labor lines*, which are provided free of charge by the company. Each has a small kitchen in a back room, where wood is used to fuel small stoves for cooking. Fuel wood is collected from the hilly forestland adjacent to the tea fields, and clothes washing is done by hand near a common water pump. With respect to child care, a crèche is provided free of charge during women's working hours for children age 5 and under. Older children are usually in school through age 16. Most households are nuclear in composition, including older sons and daughters who have not yet married. Some households are multigenerational and may include parents or married sons and their wives. In contrast to Western countries, substitutes for housework tasks, such as pre-prepared food, restaurants, washing machines, or domestic labor for hire, are not available or affordable in the estates.

Data Sources

We used several sources of information for the analysis. In the first phase of fieldwork, we obtained information from the tea company's computerized records on the identity numbers and yearly wages for all workers. Many surveys in developing countries do not record individual or household income, because they are difficult to estimate accurately. This is particularly true for women, who are often engaged in work outside the formal labor force and whose economic contributions to the household are thus hard to quantify (Korinek,

2004). In contrast, the income data from the company's computerized records are extremely accurate.

We created the sampling frame during the first phase of fieldwork. Each estate office maintains a "family card" listing the individuals in each housing unit and their relationship to the (typically male) household head. The information on the family cards, including the ages and ID numbers of the household head and spouse, was collected and digitized. The sampling frame was restricted to married women age 18 to 58, and 4,600 women were drawn randomly from the digitized list to be interviewed in the second phase of our fieldwork in January to March 2003. Because the list of workers was 1 year old at the time of the survey, 118 respondents in the sampling frame had left employment (mostly because of retirement) by January 2003. Of the remaining 4,482 selected women, 3,994 interviews were completed (a response rate of 89.1%).

Women reported their and their husbands' ID numbers on the survey, and we used this information to merge the survey data with the computerized income data. Of the 3,994 female respondents interviewed, 292 (7.3%) were dropped from the sample because of mismatches between the ID numbers recorded in the survey and the administrative records. An additional 380 (9.5% of the total sample) were removed because their husbands worked outside the estates, and accurate income data were unavailable for them. Finally, 141 (3.5%) were removed because of missing values for one of the variables of interest, yielding a final sample size of 3,181 women. Women were interviewed in their homes, in private, after working hours or on weekends. The survey collected information on demographic characteristics of women and their husbands and included modules on child education, health, and marriage and household decision making, including questions on husbands' participation in housework and child care.

We returned to the tea estates for a third phase of fieldwork in January 2005 to conduct semistructured interviews with a sample of female survey respondents and their husbands. Respondents were chosen to represent a range of age and caste groups. For most couples, both the wife and husband were located and interviewed separately. A brief section of the interview guide was devoted to housework; wives (n = 25) were asked to describe the extent to which their husbands helped with household chores in general and with cooking, clothes washing, and child care in particular, and husbands (n = 24) were asked similar questions about their own housework participation. All interviews were audio taped and simultaneously typed and transcribed.

Dependent Variables

According to key informants and the previous research in India, housework and child care are perceived as female domains despite women's involvement in full-time work (Saraff & Srivastava, 2010). Therefore, our survey questions asked wives to assess the frequency of their husbands' participation in four female-typed housework tasks: (a) cooking, (b) washing clothes, (c) fuel wood collection, and (d) child care. Each of these tasks served as a dependent variable in our quantitative analysis. The survey did not elicit information about other, more masculine tasks, such as organizing large purchases. Women were asked how often their husbands helped with each task currently, similar to previous studies in

developing countries (Sanchez, 1993; Saraff & Srivastava, 2010; Teerawichitchainan, Knodel, Loi, & Huy, 2010). The response categories included "usually," "sometimes," "rarely," and "never." For each task, we created a dichotomous variable coded 1 = usually or sometimes and 0 = rarely or never, given the small frequencies in certain categories. We also created an overall measure of the frequency of husbands' assistance as usual or sometimes participation in any of the four housework tasks.

Many studies in Western countries have used estimates of completed hours of housework per day or per week as dependent variables (Lachance-Grzela & Bouchard, 2010). Our survey measure instead captured the frequency of husbands' participation, which provided a rough approximation of their level of effort. We chose this method of questioning for two reasons. First, women continue to have major responsibilities for housework and child care in India (Jain & Belsky, 1997; Pant, 2000; Ramu, 1988; Roopnarine et al., 1992; Saraff & Srivastava, 2010); therefore, an important question is the extent to which husbands "help" or assist their wives in these routine tasks, if at all (Coltrane, 2000). Second, women's education levels in the tea estates are very low, with over one third of women in the sample never having attended school. Therefore, retrospective estimations, in particular assessments of weekly hours, could have been highly inaccurate.

Earnings Share

The key predictor of husbands' participation in housework tasks was the husband's share of household income, and we included both linear and quadratic terms in our regressions. We used data on husbands' and wives' income in rupees for the year 2001. As in much of the housework literature to date (e.g., Bittman et al., 2003; Schneider, 2011, 2012), we calculated husband's earnings share as the husband's earnings less the wife's earnings and then divided by the total couple earnings. The resulting variable ranged from –1 to 1 and was rescaled to range from 0 to 1, with 0 indicating that the husband earned no income and the wife was the sole economic provider and 1 indicating that the husband was the sole earner. The information on earnings share from 2001 (which was interpreted as a measure of individuals' bargaining power) temporally preceded wives' assessments of husbands' participation in housework from early 2003, which helped alleviate the problem of reverse causality and facilitated the identification of the effects of participation on earnings share. We also included a variable for total household income, which was the sum of the spouses' earnings.

Control Variables

There are a number of important factors that are likely to be correlated with employment, earnings, and housework that we included in the models as statistical controls. Individual gender attitudes are associated with both entry into employment and participation in domestic labor (Davis, Greenstein, & Gerteisen Marks, 2007; Greenstein, 1996). Because our data did not contain direct measures of spouses' gender beliefs, we included variables for husbands' and wives' years of completed education and caste. More highly educated individuals and those with lower caste status generally hold more egalitarian gender attitudes (Evertsson & Nermo, 2004; Kapadia, 1995; Lu, Maume, & Bellas, 2000; Shu, 2004). On the survey, women reported their sub-caste by name, and we coded these into the

lowest untouchable caste groups versus all other caste groups (1 = higher caste, 0 = lower caste). Given that 97.5% of husbands and wives had married individuals from the same subcaste, we included a measure of caste only for wives. Age of husbands and age of wives were included as linear and quadratic terms to account for the possibility of life course effects on participation in housework (Rexroat & Shehan, 1987).

Disorderly or uncooperative men are less likely to be employed and could be less amenable to helping with housework. We controlled for husbands' regular alcohol consumption and perpetration of physical violence as proxies for these types of husbands. Husband's recent regular alcohol consumption was measured dichotomously as 1 = daily or once a week and 0 = a couple times a month, rarely, or never. Husband's recent perpetration of physical abuse was coded 1 = hit wife in the last year and 0 = did not hit wife in the last year.

Domestic labor could be correlated with the free time individuals have available in their day (Pinto & Coltrane, 2009). Although we did not collect information on the number of work hours for men and women, we controlled for husbands who were not working, and we created dichotomous variables for employed, unemployed, and retired men. We also accounted for the number of days women missed work because of illness or injury in the last year, which was the primary reason for their absence from work. Other household members could undertake domestic chores (Lu et al., 2000; Pant, 2000), and we included three separate dichotomous variables for at least one coresident son, daughter, and daughter-in-law, all age 16 or older. In India, (grand)parents usually reside with sons; therefore, there were very few coresident mothers or fathers of the female workers living in the estates to create a separate category for them. Thus, we created one dichotomous variable for at least one coresident mother, father, mother-in-law, or father-in-law of the respondent (the survey did not distinguish between the gender of coresident (grand)parents). Finally, we created a dichotomous variable for one or more coresident children under age 16, because they could create more housework and child care for parents.

Analytical Strategy

For the qualitative analysis, transcripts and field notes were coded using word processing software (Charmaz, 2006); the main themes included husbands' overall performance of housework, by specific task, and the explanations given for their degree of involvement. We examined each of these themes across respondents to deduce the extent of male participation and perceptions regarding the gendered nature of each task.

For the statistical analysis, we produced descriptive statistics and conducted logit regressions for each of the four dependent variables. For each housework task, we tested bargaining and gender display theories by incorporating both linear and quadratic terms for husbands' earnings share along with all controls. The regressions examining husbands' participation in child care were limited to respondents with at least one coresident child under age 16. To test the hypothesis that male gender display is not limited to men with no earnings, we ran additional logit regressions in which respondents whose husbands were unemployed or retired were dropped from the sample. Finally, we ran logit regressions using husbands' participation in any of the four tasks as the dependent variable for the full sample and for the sample restricted to couples in which men had some level of earnings. This

allowed us to replicate previous research that examined participation in a range of housework tasks combined. In all regressions, we used the *cluster* command in Stata to compute robust standard errors to account for between-respondent correlations in the same sub-caste (n = 52). We did this to account for locally shared gender norms and ideology within sub-castes.

Results

Qualitative Findings

We obtained the impression from key informants that most housework and child care tasks continued to be women's responsibilities and were undertaken mostly by women, as was the case in the workers' rural communities of origin. This was also the consensus view among both male and female respondents in the semistructured interviews. Several husbands responded that housework in general "should only be done by women." Nevertheless, most respondents agreed that, because of the long hours and strenuous work in which women engaged, husbands were expected to help to some degree with household chores. The assistance of individual husbands varied greatly, however: Whereas several husbands wanted to "help her as much as possible," many noted that men assisted with housework reluctantly and "only when necessary," for example, if their wives were ill or were expected to arrive home late from work.

Husbands' participation also varied considerably by the type of housework task. Respondents agreed that many men assisted with cooking, in particular, boiling water to make rice and tea or cutting vegetables. These efforts also ranged in frequency. One man noted, "I will help her in cooking. Whatever she asks me to prepare, I would prepare. As both of us are working, I have to help her." Others noted that men helped as and when needed. One husband said, "I know how to cook." (Interviewer: "Do you cook regularly?") "I don't cook every day. I cook when my wife or daughter is not well." ("What sort of help do you extend?") "I cut vegetables, peel onions, garlic. I grate coconuts and grind the masala too." Overall, men and women were quick to comment on husbands' assistance with cooking tasks, and several men appeared proud of the skills they had mastered.

Husbands helped their wives quite regularly with child care, including escorting children to and from the crèche or school and supervising homework sessions. In general, men did not bathe or feed children, however. Indeed, the types of activities men undertook tended to be the less demanding aspects of cooking and the less routine and more interactive aspects of child care, as has been reported in studies in the United States, India, and Vietnam (Bianchi, Robinson, & Milkie, 2006; Saraff & Srivastava, 2010; Teerawichitchainan et al., 2010). In the semistructured interviews, respondents were not explicitly asked about husbands' engagement in fuel wood collection, but numerous men mentioned that they often collected and cut fuel wood or collected water. One woman noted that collecting and cutting fuel wood is "something he can do," suggesting that this was an activity men knew how to do and with which they agreed to help.

There was consensus among respondents that husbands rarely washed clothes. From the husbands' perspective, washing was an activity that most men would not do or refused to

learn, even among those who frequently assisted their wives with other tasks. For example, when asked what sort of help he did around the house, one male respondent noted, "I cook and sometimes clean the house," but when asked about clothes washing, he replied, "No. That thing I do not do." Numerous men explained that washing was work women "automatically" knew how to do, they were "best at doing," or "only women know how" to do. These descriptions suggested that washing was seen as a natural extension of womanhood. Among the few husbands who partook in washing, they usually limited it to their own clothing and did not wash their wives' and children's garments. In addition, they took measures to hide this activity. They did not wash at the nearby public water pump but carried their clothing to a river or lake instead, or washed clothes while they bathed. The limited extent and disclosure of men's involvement suggested that clothes washing was stigmatizing for husbands and that it could be difficult for wives to enlist their assistance. Another explanation for men's nonperformance of clothes washing was expressed by two husbands, who remarked that their wives would not allow them to wash clothes. These comments indicated that some women could have claimed clothes washing as their territory and therefore did not attempt to negotiate with husbands for their assistance (Zuo, 2001).

In sum, the qualitative analysis supported the argument that male participation in housework varied by the gendered nature of the task. Although men did not bear full responsibility for any of the tasks discussed, many men actively performed fuel wood collection and several cooking and child care activities. The willing engagement in and discussion of these tasks suggested that they were not stigmatizing for men to perform. In contrast, clothes washing was an activity that most men would not do, or they concealed their limited involvement from others in the community. Although the qualitative analysis shed light on societal norms regarding male performance of each task, in the semistructured interviews respondents were not asked about, and did not expand on, the relationship between spouses' relative earnings and the likelihood of husbands' involvement. We now turn to the quantitative analysis, in which we investigated the level and determinants of male participation in cooking, clothes washing, fuel wood collection, and child care.

Descriptive Statistics

Consistent with the qualitative findings, one can see in Table 1 that the majority of men usually or sometimes helped their wives with each housework task, with the exception of clothes washing, a task with which less than 5% of men helped to this extent. There was also a high level of participation (83.3%) when we considered assistance with any of the four tasks. Although these figures indicate that men were highly involved in household work, readers will recall that the survey questions asked wives to report how often husbands "helped" with these activities, which differs from having sole responsibility. Similar levels of male assistance were found in a study of single- and dual-earning households in Bombay, India. Among these couples, 6.0% of husbands participated frequently or sometimes with clothes washing (compared to rarely or never), and this was the lowest level of participation across all tasks examined (Saraff & Srivastava, 2010). Taken together, these results suggest that clothes washing remained solidly with the female domain within these Indian households despite the employment status of wives.

Also presented in Table 1 are descriptive statistics on the characteristics of husbands and wives and household composition. In the tea estates, husbands' average annual earnings share was .48, which translated into husbands earning less than their wives in 61.4% of couples (results not shown). On the basis of couples in which men had some level of income, husbands' earnings share increased to .56 (husbands earning less than their wives in 55.0% of couples, results not shown). The distribution of husbands' earnings share is displayed in a histogram in Figure 1. There was a relatively concentrated distribution around the mean (SD = 0.21), with approximately 15% of men with no earnings share because of unemployment or retirement (see Table 1).

With respect to other variables in Table 1, we found that average annual household earnings in the tea estates was approximately *R*s. 40,200, equivalent to USD 840 at the time of the survey. This was less than twice the poverty line for rural Kerala, the state in which the tea estates are located (Government of India, 2007). This relatively low level of household income underscores the inability of tea estate families to afford substitutes for housework in terms of domestic servants or restaurant meals. Levels of male alcohol consumption and physical violence were high; these figures from the tea estates were slightly larger than in Tamil Nadu state as a whole and higher than national averages in India (International Institute for Population Sciences & Macro International, 2008).

Regression Analysis

In Table 2 we present results from the logit regression analyses of the likelihood of husbands helping usually or sometimes with each of the four housework tasks compared to rarely or never helping. The results supported theories of bargaining and gender display for each task, with the exception of clothes washing. For cooking, fuel wood collection, and child care, a curvilinear relationship between husbands' earnings share and their participation in the task appeared; the linear term was positive, the quadratic term was negative, and both were significant or marginally significant. As expected, the results for clothes washing revealed that there was neither a significant linear nor quadratic association between men's earnings share and their likelihood of participation in this task. These findings support the view that women were unable to bargain for husbands' assistance with clothes washing regardless of their contributions to household income.

Figure 2 depicts predicted probabilities of male participation in the four housework tasks from Table 2 (all other variables were held to their means or modes, depending on whether they were continuous or categorical). Notice that the values of the *x*-axis were arranged in such a way that husbands' earnings share decreased from 1 to 0 as the values moved from left to right. (The corresponding interpretation is that wives' earnings share increased from 0 to 1 from left to right.) Participation was very low for clothes washing at each level of earnings share, and readers will recall the slope was not significantly different from 0. For cooking, fuel wood collection, and child care, the expected inverted *U*-shaped pattern was revealed: As husbands' share of earnings decreased from its highest level (women's earning share increased), the probability of male participation in these chores increased. At the lowest level of husbands' earnings share, however, men's likelihood of participation decreased, which signaled male gender display in all three tasks.

The results of the logit regression analysis in Table 2 reveal no clear pattern across the controls for all housework tasks, reinforcing the view that tasks should be examined separately, as their levels and predictors differ. With respect to variables that attained statistical significance across two or more tasks, total household earnings showed a negative association with husbands' participation in clothes washing and child care. Husbands' education was positively associated with assistance with clothes washing, indicating perhaps that those with more egalitarian gender attitudes were more likely to help with the most feminine task. Education was negatively associated with fuel wood collection, however. Unemployed men were more likely to assist in cooking and child care than employed men, supporting the time availability thesis. Husbands' regular alcohol consumption decreased their participation in all four tasks. Moreover, physical violence displayed a negative association with helping with cooking and fuel wood collection. As noted, husbands who regularly consume alcohol or perpetuate violence could be the types of men less willing to assist with household chores.

Household composition also shaped patterns of husbands' domestic labor. Coresidence with older sons increased the probability of husbands' participation in clothes washing and decreased assistance with child care. Coresidence with daughters-in-law reduced the likelihood of men's participation in cooking and fuel wood collection. It could be easier for wives to enlist the assistance of these women compared to their husbands, or perhaps the responsibility also falls to them as married women in the household.

The results presented in Table 2 and Figure 2 support the gender display hypothesis with respect to men's participation in cooking, fuel wood collection, and child care. Scholars have suggested, however, that a curvilinear relationship between husbands' earnings share and housework is driven by men with no earnings. We hypothesized that in the tea estates, where traditional gender norms and ideology are relatively resilient, gender display would not be limited to this small subset of men. Therefore, we expected the curvilinear relationship between men's earnings share and participation in the three tasks to persist once men with no earnings were dropped from the analysis. The results in Table 3 for the sample of men with some level of earnings support this hypothesis. The significant associations between husbands' earnings share and participation and cooking, fuel wood collection, and child care were remarkably similar to those in Table 2 with the full sample. The magnitude and significance of the control variables were generally similar as well.

Finally, we conducted the regression analysis using husbands' usual or sometimes participation in any of the four housework tasks as the dependent variable. The results, shown in Table 4, revealed that the linear and quadratic terms for husbands' earnings share were positive and negative, respectively, indicating a curvilinear relationship, and significant at the 5% level. These results held for the full sample and for couples in which men earned some level of income. We also plotted the predicted probabilities of husbands' participation in any task in Figure 2 using the results for the full sample from Table 4. The results showed the expected inverted *U*-shaped pattern, whereby the probability decreased for men with the lowest earnings share. We also noted that the findings in Figure 2 reveal various levels of male participation and gender display across the three housework tasks, and these

differences were obscured when we incorporated all tasks into one overall housework measure.

Robustness Checks

We completed several additional analyses to confirm the robustness of our results. First, in light of our decision to analyze the frequency of husbands' housework participation dichotomously, we experimented with multinomial regressions (because the proportionality assumption in ordered regressions did not hold) and plotted predicted probabilities to compare the results for the categories individually (usually, sometimes, rarely, or never) by task. We found the strongest and most consistent divisions were between usually/sometimes and rarely/never for cooking, fuel wood collection, and child care. For each task, husbands' earnings share showed an inverted *U*-shaped association with usually and sometimes. The coefficients on the linear and quadratic terms were significant almost without exception. In addition, earnings share showed a significant *U*-shaped association with rarely and never for each task, and once again the coefficients were significant almost without exception. There were no significant differences across categories for clothes washing. These findings suggest that that the most meaningful distinctions were between usually/sometimes and rarely/never across the three tasks, which supports our decision to construct the dependent variables dichotomously.

Second, whereas the previous literature has focused on men with no earnings as outliers whose behavior could be driving gender display, we were also concerned that the downward slope in husbands' participation at the high end of their earnings share could be due to a few outlier cases. The histogram of husbands' earnings share in Figure 1 showed no concentration of outliers at this end of the distribution, however. We also experimented with dropping cases at the higher end of the earnings share distribution in the regression analysis to see if the downward slope in husbands' participation remained. Using several cutoffs (dropping cases greater than .75, .80, and .85 earnings share), we found that the curvilinear association remained across all four housework tasks (cooking, fuel wood collection, child care, and all housework tasks combined), and most of the coefficients for the linear and quadratic terms were significant or marginally significant.

Discussion

The bulk of research examining the influence of spouses' relative earnings on the performance of housework has been undertaken in Western countries. In this study, we extended existing theories of bargaining power and gender display to a non-Western setting where women's marital power is often constrained by societal gender norms, including those governing housework. We argued that societal norms shape the gendered nature of housework tasks, allowing women to negotiate for husbands' participation in some tasks but not others. We used qualitative and survey data collected on a group of tea estates in India, where women are often the chief breadwinners in their families. In the analysis, we focused on spouses' relative earnings as a key determinant of husbands' performance of housework, and we hypothesized that patterns of bargaining and male gender display will vary by the gendered nature of specific activities.

The analysis revealed three main findings. First, we argued that male participation in housework is nonnegotiable for tasks that are perceived as solidly within the female realm. The qualitative analysis revealed that, in the tea estates context, the most female-gendered task was clothes washing, which was stigmatizing for men to undertake. As such, very few husbands (< 5%) assisted their wives usually or sometimes with this task. In support of our hypothesis, the regression results showed no association between husbands' earnings share and their participation in clothes washing, suggesting that women's earnings translated into little bargaining power in this area. Several respondents provided an alternative interpretation for husbands' nonparticipation in washing: Instead of a lack of bargaining power, women did not desire help with laundry or acted as gatekeepers to prevent others' involvement. Although most respondents' comments pertained to husbands' refusal to participate in this task, the qualitative data were not rich enough to allow us to decisively conclude whether men's or women's refusals drove decisions regarding husbands' help with washing. Nevertheless, both views indicated that clothes washing was perceived to be a female task and therefore outside the bounds of negotiation.

Second, we hypothesized that women's economic resources would afford them greater power to enlist husbands' participation in tasks that were more gender neutral. In the tea estates, cooking, fuel wood collection, and child care were perceived as less strictly feminine compared to clothes washing, and the survey data revealed that over half of husbands helped their wives usually or sometimes with these tasks. In support of bargaining theory, we found that male participation in these activities increased as women contributed larger amounts to household income. In addition, we expected that husbands who did not adhere to the breadwinning norm would practice gender display. Indeed, men were the least likely to assist in these gender-neutral tasks when they had the lowest earnings share.

Third, we hypothesized that in the tea estates, where gendered norms of behavior remain relatively traditional, male gender display would be pronounced, unlike its disappearance in Western countries. In support of this hypothesis, our results reveal that the downturn in men's participation in cooking, fuel wood collection, and child care not only pertained to men with no earnings but also was evident when these un-earning men were dropped from the analysis. These findings suggested that employed men who earned less than their wives also refrained from housework as an assertion of their masculinity.

Despite these noteworthy findings, our study had several limitations. Our survey measure of the frequency of men's participation in housework had drawbacks. It did not capture actual performance or specific hours of labor (Lachance-Grzela & Bouchard, 2010) and conflated the routine and nonroutine aspects of cooking and child care (Bianchi et al., 2006; Saraff & Srivastava, 2010). Furthermore, women's proxy reports of husbands' housework could have underestimated men's actual contributions (Sanchez, 1993). Given this potential bias, our results are likely to be conservative (Pinto & Coltrane, 2009). We also did not collect detailed measures of housework from wives and husbands, which could be used to calculate relative measures between spouses and examine the extent of female gender display in India (Lachance-Grzela & Bouchard, 2010).

In addition, although our results are consistent with theoretical expectations of bargaining and gender display, we did not directly observe bargaining or the decision-making process between spouses. We inferred these behaviors from the patterns of associations produced by the quantitative analysis, and the qualitative data were not extensive in this regard. Our semistructured interviews were geared toward attaining a wide array of information so that the discussion of housework and child care comprised a relatively small portion of the interview. Had these issues been our main focus, we would have had more, and richer, data with which to explore how spouses reflect on and negotiate the domestic division of labor. Nevertheless, our quantitative study benefited from the complementary qualitative data, which helped illuminate the circumstances surrounding husbands' helping their wives and explanations for their inaction across tasks. For example, men appeared to assist their wives with most tasks only as and when needed, which differed from managing chores or having major responsibility for them. Furthermore, the results revealed that washing clothes was particularly stigmatizing for husbands to undertake, and they therefore refused, limited, or concealed their involvement in this task compared to other activities.

There are few studies in developing countries on the division of domestic labor. Our investigation is among the first to test theories of bargaining and gender display in south Asia and explore how couples' earnings affect husbands' participation in a historically female domain. Despite decades of women's full-time employment and high relative income on the tea estates, this situation does not appear to have altered gender ideology to the extent that gender roles (at least with respect to housework) have become equal or even reversed. Although men helped with housework, not all men participated and not in all types of tasks. These findings parallel experiences of numerous immigrant populations to Western countries, including Indian, Vietnamese, and Central American (e.g., Bhalla, 2008; Espiritu, 1999; Kibria, 1995; Menjivar, 1999). Many of these families have also experienced a gender reversal in employment patterns, in that women are more readily employable in low-paying service or factory work, whereas men have difficulty locating stable, profitable occupations. Here, too, women's breadwinning has not brought about huge shifts in gender roles. These studies have found that although women have gained decision-making power in some realms, husbands often reject helping in the arena of domestic labor. Our results, taken together with this body of research, suggest that as more women enter the paid labor force in India in the coming decades, men will remain resistant to full participation in the domain of housework in general and with feminine tasks in particular.

Acknowledgments

This article uses data from a project directed by Nancy Luke of The Pennsylvania State University and Kaivan Munshi of the University of Cambridge. The work was supported by grants from the National Institutes of Health (R01-HD046940) and the Harry Frank Guggenheim Foundation as well as supplementary funding from the Mellon Foundation and the University Research Foundation at the University of Pennsylvania. We thank Homi Khusrokhan as well as the management, staff, and workers of Tata Tea, Munnar, for their assistance and gracious hospitality during our extended stays in the tea estates. Leena Abraham assisted in the design of the survey.

References

Agarwal B. "Bargaining" and gender relations: Within and beyond the household. Feminist Economics. 1997; 3:1–51.10.1080/135457097338799

- Beegle K, Frankenberg E, Thomas D. Bargaining power within couples and use of prenatal and delivery care in Indonesia. Studies in Family Planning. 2001; 32:130–146.10.1111/j. 1728-4465.2001.00130.x [PubMed: 11449862]
- Bhalla V. "Couch potatoes and super-women": Gender, migration, and the emerging discourse on housework among Asian Indian immigrants. Journal of American Ethnic History. 2008; 27:71–99.
- Bianchi, SM.; Robinson, JP.; Milkie, MA. Changing rhythms of American family life. New York: Russell Sage Foundation; 2006.
- Bittman M, England P, Folbre N, Sayer L, Matheson G. When does gender trump money? Bargaining and time in household work. American Journal of Sociology. 2003; 109:186–214.10.1086/378341
- Blood, RO.; Wolfe, DM. Husbands and wives. New York: Free Press; 1960.
- Bloom SS, Wypij D, Das Gupta M. Dimension of women's autonomy and the influence on maternal health care utilization in a north Indian city. Journal of Marriage and Family. 2001; 38:67–78.10.1353/dem.2001.0001
- Brines J. Economic dependency, gender, and the division of labor at home. American Journal of Sociology. 1994; 100:652–688.10.1086/230577
- Charmaz, K. Constructing grounded theory. Thousand Oaks, CA: Sage; 2006.
- Chatterjee, P. A time for tea: Women, labor, and post/colonial politics on an Indian plantation. Durham, NC: Duke University Press; 2001.
- Coltrane S. Research on household labor: Modeling and measuring the social embeddedness of routine family work. Journal of Marriage and the Family. 2000; 62:1208–1233.10.1111/j. 1741-3737.2000.01208.x
- Coltrane S. Gender theory and household labor. Sex Roles. 2010; 63:791–800.10.1007/ s11199-010-9863-6
- Davis S, Greenstein TN, Gerteisen Marks JP. Effects of union type on division of household labor: Do cohabitating men really perform more housework? Journal of Family Issues. 2007; 28:1246–1272.10.1177/0192513X07300968
- Espiritu YL. Gender and labor in Asian immigrant families. American Behavioral Scientist. 1999; 42:628–647.10.1177/00027649921954390
- Evertsson M, Nermo M. Dependence within families and the division of labor: Comparing Sweden and the United States. Journal of Marriage and Family. 2004; 66:1271–1286.10.1111/j. 0022-2445.2004.00092.x
- Government of India. Poverty estimates for 2004–05. New Delhi: GOI Press Information Bureau; 2007 Mar.
- Government of India. Key indicators of employment and unemployment in India. New Delhi: National Sample Survey Office, Ministry of Statistics and Programme Implementation; 2013 Jun.
- Greenstein TN. Husbands' participation in domestic labor: Interactive effects of wives' and husbands' gender ideologies. Journal of Marriage and the Family. 1996; 58:585–595.10.2307/353719
- Greenstein TN. Economic dependence, gender, and the division of labor in the home: A replication and extension. Journal of Marriage and the Family. 2000; 62:322–335.10.1111/j. 1741-3737.2000.00322.x
- Hoddinott J, Haddad L. Does female income share influence household expenditures? Evidence from Côte d'Ivoire. Oxford Bulletin of Economics and Statistics. 1995; 57:77–96.10.1111/j. 1468-0084.1995.tb00028.x
- International Institute for Population Sciences & Macro International. National Family Health Survey (NFHS-3), India, 2005–06: Tamil Nadu. Mumbai, India: International Institute for Population Sciences; 2008.
- Jain A, Belsky J. Fathering and acculturation: Immigrant Indian families with young children. Journal of Marriage and the Family. 1997; 59:873–883.10.2307/353789
- Kabeer N. Women, wages and intra-household power relations in urban Bangladesh. Development and Change. 1997; 28:261–302.10.1111/1467-7660.00043
- Kan MY. Does gender trump money? Housework hours of husbands and wives in Britain. Work, Employment and Society. 2008; 22:45–66.

- Kantor P. Women's empowerment through home-based work: Evidence from India. Development and Change. 2003; 34:425–445.10.1111/1467-7660.00313
- Kapadia, K. Siva and her sisters. Boulder, CO: Westview Press; 1995.
- Kenney CT. Father doesn't know best? Parents control of money and children's food insecurity. Journal of Marriage and Family. 2008; 70:654–669.10.1111/j.1741-3737.2008.00512.x
- Kibria, N. Family tightrope: The changing lives of Vietnamese Americans. Princeton, NJ: Princeton University Press; 1995.
- Korinek K. Maternal employment during northern Vietnam's era of market reform. Social Forces. 2004; 83:791–822.10.1353/sof.2005.0015
- Lachance-Grzela M, Bouchard G. Why do women do the lion's share of housework? A decade of research. Sex Roles. 2010; 63:767–780.10.1007/s11199-010-9797-z
- Lu ZZ, Maume DJ, Bellas ML. Chinese husbands' participation in household labor. Journal of Comparative Family Studies. 2000; 31:191–215.
- Luke N, Goldberg RE, Mberu B, Zulu EM. Social exchange and sexual behavior in young women's premarital relationships in Kenya. Journal of Marriage and Family. 2011; 73:1048–1064.10.1111/j.1741-3737.2011.00863.x [PubMed: 22180665]
- Luke N, Munshi K. Women as agents of change: Female income and mobility in India. Journal of Development Economics. 2011; 94:1–17.10.1016/j.jdeveco.2010.01.002 [PubMed: 24319310]
- Luke N, Xu H. Exploring the meaning of context for health: Community influences on child health in South India. Demographic Research. 2011; 25:345–374.10.4054/DemRes.2011.24.15
- Malhotra A, Mather M. Do schooling and work empower women in developing countries? Gender and domestic decisions in Sri Lanka. Sociological Forum. 1997; 12:599–630.
- McElroy M. The empirical content of Nash-bargained household behavior. Journal of Human Resources. 1990; 24:559–583.10.2307/145667
- Menjivar C. The intersection of work and gender: Central American immigrant women and employment in California. American Behavioral Scientist. 1999; 42:601– 627.10.1177/00027649921954381
- Pant M. Intra-household allocation patterns: A study in female autonomy. Indian Journal of Gender Studies. 2000; 7:93–100.10.1177/097152150000700107
- Philips A. Rethinking culture and development: Marriage and gender among the tea plantation workers in Sri Lanka. Gender & Development. 2003; 11:20–29.10.1080/741954313
- Pinto KM, Coltrane S. Divisions of labor in Mexican origin and Anglo families: Structure and culture. Sex Roles. 2009; 60:482–495.10.1007/s11199-008-9549-5
- Ramu GN. Indian husbands: Their role perceptions and performance in single- and dual-earner families. Journal of Marriage and the Family. 1987; 49:903–915.10.2307/351983
- Ramu GN. Marital roles and power: Perceptions and reality in the urban setting. Journal of Comparative Family Studies. 1988; 29:207–227.
- Rexroat C, Shehan C. The family life cycle and spouses' time in housework. Journal of Marriage and the Family. 1987; 49:737–750.10.2307/351968
- Rodman H. Marital power and the theory of resources in cultural context. Journal of Comparative Family Studies. 1972; 3:50–69.
- Roopnarine JL, Talukder E, Jain D, Joshi P, Srivastav P. Personal well-being, kinship tie, and motherinfant and father-infant interactions in single-wage and dual-wage families in New Delhi, India. Journal of Marriage and the Family. 1992; 54:293–301.10.2307/353061
- Samarasinghe V. Puppets on a string: Women's wage work and empowerment among female tea plantation workers of Sri Lanka. The Journal of Developing Areas. 1993; 27:329–340.
- Sanchez L. Women's power and the gendered division of domestic labor in the Third World. Gender & Society. 1993; 7:434–459.10.1177/089124393007003007
- Saraff A, Srivastava HC. Pattern and determinants of paternal involvement in childcare: An empirical investigation in a metropolis of India. Population Research and Policy Review. 2010; 29:249– 273.10.1007/s11113-009-9139-4
- Schneider D. Market earnings and household work: New tests of gender performance theory. Journal of Marriage and Family. 2011; 73:845–860.10.1111/j.1741-3737.2011.00851.x

- Schneider D. Gender deviance and household work: The role of occupation. American Journal of Sociology. 2012; 117:1029–1072.10.1086/662649
- Shu X. Education and gender egalitarianism: The case of China. Sociology of Education. 2004; 77:311–336.10.1177/003804070407700403
- Shukla A. Decision making in single- and dual-career families in India. Journal of Marriage and the Family. 1987; 49:621–629.10.2307/352207
- Stickney LT, Konrad AM. Gender-role attitudes and earnings: A multinational study of married women and men. Sex Roles. 2007; 57:801–811.10.1007/s11199-007-9311-4
- Sullivan O. An end to gender display through the performance of housework? A review and reassessment of the quantitative literature using insights from the qualitative literature. Journal of Family Theory & Review. 2011; 3:1–13.10.1111/j.1756-2589.2010.00074.x
- Teerawichitchainan B, Knodel J, Loi VM, Huy VT. The gender division of household labor in Vietnam: Cohort trends and regional variations. Journal of Comparative Family Studies. 2010; 41:57–85.
- West C, Zimmerman DH. Doing gender. Gender & Society. 1987; 1:125– 151.10.1177/0891243287001002002
- Xu X, Lai S. Resources, gender ideologies, and marital power: The case of Taiwan. Journal of Family Issues. 2002; 23:209–245.10.1177/0192513X02023002003
- Zuo J. Gendered resources, division of housework, and perceived fairness—A case in urban China. Journal of Marriage and Family. 2001; 63:1122–1133.10.1111/j.1741-3737.2001.01122.x





Figure 1. Distribution of Husband's Earnings Share.

Luke et al.





Table 1

Descriptive Statistics for Husband, Wife, and Household Characteristics (N = 3,181)

Variable	M or %	SD
Husband usually or sometimes helps with		
Cooking	51.2	
Washing clothes	4.5	
Fuel wood collection	81.3	
Child care ^{<i>a</i>}	56.4	
Any of the four housework tasks	88.3	
Husband's earning share	.48	.21
Total couple earnings (Rs.)	40,191	10,191
Husband's age	41.6	8.8
Husband's years of education	5.8	3.2
Husband's work status		
Employed	85.4	
Unemployed	11.3	
Retired	3.3	
Husband drinks alcohol regularly	12.5	
Husband hit wife in last year	34.1	
Wife's age	38.3	8.2
Wife's years of education	3.7	3.3
Wife is higher caste ^b	31.8	
Wife's number of days missed work due to illness	13.8	41.0
Son age 16+ in household	15.6	
Daughter age 16+ in household	7.9	
Daughter-in-law in household	6.7	
Parent/in-law in household	27.3	
Child under age 16 in household	64.1	

Note: Standard deviations are not reported for binary or categorical variables. Rs. denotes Indian rupees. At the time of the survey, 48 rupees was equivalent to USD 1.

^{*a*}Sample size for this variable restricted to households that included at least one child under age 16 (N = 2,036).

^bReference is lower caste.

NIH-PA Author Manuscript

NIH-PA Author Manuscript

			:		-	;	2	4
Predictor	COOK	SIII	VV ASILITING	cionies	ruei woou	conection		care
	β	RSE	β	RSE	β	RSE	β	RSE
Husband's earning share	3.81	1.57^{*}	-1.43	6.17	6.03	2.92^{*}	7.55	3.03^{*}
Husband's earning share squared	-3.46	1.40^{*}	0.77	5.73	-4.57	2.29^{*}	-5.63	3.04^{\dagger}
Total couple earnings c	-0.005	0.01	-0.03	0.01^*	0.001	0.01	-0.04	0.01^{***}
Husband's age	0.003	0.02	0.11	0.07	0.04	0.04	0.06	0.05
Husband's age squared	-0.0001	0.0003	-0.002	0.001^{*}	-0.001	0.0004^{*}	-0.002	0.001^{*}
Husband's years of education	0.01	0.01	0.07	0.03^{**}	-0.03	0.01^*	-0.004	0.01
Husband's work status ^d								
Unemployed	1.02	0.52^{*}	-0.56	1.65	1.09	1.00	1.75	0.58**
Retired	0.65	0.67	0.19	1.81	1.73	1.11		
Husband drinks alcohol regularly	-0.39	0.06^{***}	-0.72	0.29^{*}	-0.37	0.10^{***}	-0.27	0.11^*
Husband hit wife in last year	-0.14	0.05**	-0.06	0.25	-0.30	0.09***	-0.12	0.14
Wife's age	-0.02	0.05	0.11	0.11	-0.08	0.08	-0.15	0.11
Wife's age squared	0.00003	0.001	-0.002	0.002	0.001	0.001	0.001	0.001
Wife's years of education	0.01	0.01	-0.01	0.02	-0.01	0.01	0.04	0.01^{***}
Wife is higher caste ^e	-0.04	0.10	-0.05	0.19	-0.10	0.13	-0.18	0.08^{*}
Wife's no. days missed work due to illness	0.002	0.001	0.002	0.001^{*}	-0.0004	0.0005	-0.0003	0.001
Son age 16+ in household	-0.03	0.15	0.28	0.12^{*}	0.15	0.10	-0.41	0.14^{**}
Daughter age 16+ in household	-0.13	0.19	-0.92	0.65	-0.12	0.08	-0.19	0.24
Daughter-in-law in household	-0.30	0.17 [†]	0.02	0.35	-0.71	0.10^{***}	-0.08	0.09
Parent/in-law in household	-0.17	0.10^{\ddagger}	-0.01	0.18	0.07	0.06	-0.18	0.45
Child under age 16 in household	0.29	0.11^{**}	-0.15	0.15	0.04	0.18		
Constant	-0.31	1.12	-4.55	$2.54\dot{\tau}$	2.06	1.50	3.45	1.83 $\hat{\tau}$

J Marriage Fam. Author manuscript; available in PMC 2015 June 01.

Note: RSE = robust standard error.

$^{a}N = 3,181.$

b Sample size for child care regressions are restricted to households that included at least one child under age 16, N = 2,036.

 $^{C}\mathrm{Per}$ 1,000 Indian rupees (48 rupees \approx USD 1).

 $d_{
m Reference:\ employed.}$

 e Reference: lower caste.

f p < .10.

* *p* < .05.

p < .01.

p < .001.

NIH-PA Author Manuscript

ŝ
able
Ца

ons
essi
egr
it R
208
[m
Frc
ents
fici
oef
S: C
ing
Earr
ith I
M
Mer
ith]
N S
ple
Cou
for
sks
Ta
/ork
Isew
Hou
II.
tion
cipa
artik
's P
and
usb;
Ĥ

	Cooking (n = 2,716)	Washing cloth	les $(n = 2, 716)$	Fuel wood co	ection $(n = 2, 715)$) Child care	(n = 1,906)
Predictor	ß	RSE	ß	RSE	۶	RSE	ß	RSE
Husband's earning share	3.97	1.46^{**}	-2.10	5.82	6.10	2.82*	7.35	2.92^{*}
Husband's earning share squared	-3.57	1.29^{**}	1.43	5.38	-4.59	2.24*	-5.43	2.92^{\ddagger}
Total couple earnings b	-0.01	0.01	-0.02	0.01^{\ddagger}	-0.0005	0.01	-0.04	0.01^{***}
Husband's age	-0.01	0.04	0.12	0.10	0.08	0.09	0.05	0.05
Husband's age squared	0.00004	0.001	-0.002	0.001	-0.001	0.001	-0.001	0.001^{\dagger}
Husband's years of education	0.01	0.01	0.06	0.03^{*}	-0.03	0.01^{***}	-0.003	0.01
Husband drinks alcohol regularly	-0.51	0.08^{***}	-0.71	*0£.0	-0.51	0.12^{***}	-0.34	0.14^*
Husband hit wife in last year	-0.12	0.05**	-0.03	0.25	-0.32	0.13^{*}	-0.14	0.14
Wife's age	0.02	0.05	0.12	0.10	-0.06	0.08	-0.13	0.10
Wife's age squared	-0.001	0.001	-0.002	0.002	0.001	0.001	0.001	0.001
Wife's years of education	0.01	0.01	-0.02	0.02	-0.01	0.02	0.03	0.01^{***}
Wife is higher $caste^{C}$	-0.02	0.13	0.06	0.19	-0.08	0.16	-0.22	0.08^{**}
Wife's no. days missed work due to illness	0.002	0.001	0.002	*100.0	-0.001	0.001	-0.0004	0.001
Son age 16+ in household	-0.04	0.14	0.30	0.19	0.17	$0.10^{\acute{T}}$	-0.53	0.16^{***}
Daughter age 16+ in household	-0.05	0.23	-1.03	89.0	-0.20	0.10^*	-0.24	0.22
Daughter-in-law in household	-0.13	0.16	0.31	0.53	-0.63	0.14 ***	-0.09	0.09
Parent/in-law in household	-0.18	0.13	0.11	0.14	0.15	0.09	0.15	0.42
Child under age 16 in household	0.26	0.10^*	-0.24	0.21	0.07	0.16		
Constant	-0.79	0.83	-5.04	2.46*	0.84	0.81	3.53	1.81°

J Marriage Fam. Author manuscript; available in PMC 2015 June 01.

Note: RSE = robust standard error.

 a Sample size for child care regressions are restricted to households that included at least one child under age 16, N = 1,906.

 $b_{\rm Per}$ 1,000 Indian rupees (48 rupees $\approx {\rm USD}$ 1).

_
_
_
U
-
- D
~
-
_
-
_
-
\mathbf{O}
_
_
~
\geq
0
U
=
_
_
<u> </u>
<u> </u>
CO.
~
0
~
_
$\overline{\mathbf{n}}$
<u> </u>

 c Reference: lower caste.

Luke et al.

 $\begin{array}{c} \stackrel{f}{p} < .10. \\ & * \\ & p < .05. \\ & * \\ & p < .01. \\ & * * \\ & p < .001. \end{array}$

Table 4

Husband's Participation in Any Housework Task for All Couples (N = 3,181) and for Couples With Men With Earnings (N = 2,716): Coefficients From Logit Regressions

	All co	ouples	Men with	h earnings
Predictor	β	RSE	β	RSE
Husband's earning share	9.71	4.04*	9.96	3.76**
Husband's earning share squared	-8.17	3.69*	-8.50	3.44*
Total couple earnings ^a	-0.01	0.01	-0.01	0.01
Husband's age	0.01	0.06	-0.07	0.12
Husband's age squared	-0.0005	0.001	0.0005	0.001
Husband's years of education	-0.01	0.01	-0.02	0.01
Husband's work status ^b				
Unemployed	1.86	1.09^{\dagger}		
Retired	2.05	1.12^{\dagger}		
Husband drinks alcohol regularly	-0.33	0.10***	-0.60	0.11***
Husband hit wife in last year	-0.53	0.06***	-0.55	0.07***
Wife's age	-0.22	0.12^{\dagger}	-0.17	0.12
Wife's age squared	0.002	0.001	0.002	0.001
Wife's years of education	0.03	0.02^{\dagger}	0.05	0.02*
Wife is higher caste ^c	0.01	0.17	0.002	0.23
Wife's no. days missed work due to illness	-0.0004	0.002	-0.001	0.002
Son age 16+ in household	0.20	0.15	0.23	0.11*
Daughter age 16+ in household	-0.17	0.12	-0.22	0.14
Daughter-in-law in household	-0.82	0.13***	-0.65	0.19***
Parent/in-law in household	0.01	0.06	0.10	0.12
Child under age 16 in household	0.03	0.21	0.05	0.14
Constant	5.75	2.44*	6.31	1.53***

Note: RSE = robust standard error.

^{*a*}Per 1,000 Indian rupees(48 rupees \approx USD 1).

^bReference: employed.

^cReference: lower caste.

 $^{\dagger}p<.10.$

p < .05.