# Multigenerational Effects of Education on Women's Household Decision-Making Power in Rural China

Cheng Cheng, Princeton University and Peking UniversityYu Xie, Princeton University and Peking University

#### **ABSTRACT**

Past research on household decision-making has focused on the husband-wife dyad and rarely considered the role of extended family members. This paper extends prior research by examining whether wives' parental education is associated with wives' household decision-making power and whether this association varies by husbands' parental education. Using data from the 2010 and 2014 China Family Panel Studies, we find that a higher level of wives' parental education is associated with an increase in wives' probability of having the final say on household financial decisions, net of the education of wives, husbands, and husbands' parents. However, the association between wives' parental education and decision-making power decreases as husbands' parental education increases. Educational attainment in one generation may have a lingering impact on the marital power of the next generation.

#### Introduction

Decision-making power at home is essential to women's empowerment (Malhotra & Schuler, 2005). Male-dominance in family decision-making increases intimate partner violence (Coleman & Straus, 1986), women's depression (Mirowsky, 1985), and women's marital dissatisfaction (Pimentel, 2000). Education may enhance wives' power by increasing their socioeconomic resources (Xu & Lai, 2002), exposing them to more egalitarian gender attitudes (Shu, 2004), and enhancing their abilities to make household decisions (Kabeer, 2005). Past research, however, has rarely considered that the effect of education on marital power may be multigenerational, i.e., educational attainment in one generation may have a lingering impact on the marital power of the next generation. Parental education may indirectly affect wives' decision-making power by improving wives' education (Connelly & Zheng, 2003). Parental education may also directly affect wives' power through gender-role socialization (Thornton, Alwin, & Camburn, 1983) and the provision of financial and social support (Katz & Peres, 1985). Furthermore, the association between the wife's parental education and her own decisionmaking power may depend on the education of her parents-in-law. The nuclear family is not a "closed" system (Liu, Hutchison, & Hong, 1973, p. 94) but is embedded in extended family relationships (Helms, 2013). Thus, the marital power bargain is likely to be affected not only by the resources of the husband and the wife (Blood & Wolfe, 1960) but also by the resources of their respective natal families (Fox, 1973). This study extends prior literature by addressing two questions: is wives' parental education associated with wives' decision-making power at home, net of wives' education? How does the association between wives' parental education and wives' decision-making power vary by husbands' parental education?

China provides an interesting case for this study. Extended family relations play important roles in marital relations in China. Each spouse's family background has a strong influence on marriage formation. In traditional Chinese families, a marriage represented the joining of two extended families rather than two individuals (W. Hu, Sze, Chen, & Fang, 2015). The tradition of "marriages of matching doors," i.e., marriages between families of equal social standing, prevails in contemporary China (Y. Hu, 2016). Parents continue to be involved in the postmarital lives of their children (Riley, 1994) and maintain control on the basis of filial piety, i.e., the norm that children should respect and take care of their parents later in life (Lee & Mock, 2005). Conjugal relationships are secondary to intergenerational relationships (Zuo, 2009). Intergenerational coresidence remains prevalent in contemporary China (Zeng & Xie, 2014) and serves the needs of adult children for child care and of elderly parents for old-age support (F. Chen, 2005). The nuclear family is considered to be an extension of the original family (W. Hu et al., 2015). Intergenerational relations remain strong and involve frequent reciprocal exchanges of support (Guo, Chi, & Silverstein, 2015). Although postmarital daughter-parent bonds were traditionally weaker than son-parent bonds due to strong patriarchal norms (Whyte & Xu, 2003), recent evidence suggests that intergenerational contacts have become increasingly bilateral. Over half of married couples in China engage in similar levels of financial exchanges with the husbands' and the wives' parents (Yang & Zheng, 2013).

This study focuses on the case of rural wives in China. It defines rural wives as those with agricultural *Hukou*. The *Hukou* system, first established in 1955, identifies two types of households, agricultural and non-agricultural (which are often referred to in the literature as rural and urban) (Chan & Zhang, 1999; Wu & Treiman, 2004). The classification of agricultural *Hukou* originated from the occupational division in the 1950s. A person has agricultural *Hukou* if

he or she holds entitlements to commodity grain (Chan & Zhang, 1999). *Hukou* is an ascribed status determined at birth by his or her parental *Hukou* status (Fu & Ren, 2010). Therefore, although the type of *Hukou* may not equate a person's actual occupation (Chan & Zhang, 1999), an agricultural *Hukou* indicates that the person comes from an agricultural family. The opportunities for a person to change from agricultural to non-agricultural *Hukou* are very limited (Wu & Treiman, 2004). Households categorized as urban are entitled to exclusive rights and benefits in housing, employment, medical insurance, pensions, and education (Wu & Treiman, 2007). Migrant workers with agricultural *Hukou* in urban areas are classified as "peasant workers" and do not enjoy the same rights and benefits as urban workers with nonagricultural *Hukou* (Fu & Ren, 2010). According to the 2010 China Census, 71% of the female population had agricultural *Hukou* (Population Census Office, 2012).

Agricultural *Hukou* status is associated with more traditional gender attitudes and a stronger influence of extended kinship groups on marital relations (Song & Li, 2017). The married couple and their respective natal families in rural China are interdependent on major economic resources including housing and lands (Jiang, Zhang, & Sánchez-Barricarte, 2015; W. Zhang, 2009). Therefore, this study focuses on wives with agricultural *Hukou* on the grounds that if there is an association between wives' parental education and household decision-making power, it would be most evident among rural wives.

#### THEORETICAL FRAMEWORK

Wives' Parental Education and Household Decision-Making

Why would we expect the education of wives' parents to be associated with their household decision-making power? A wife's parental education may directly influence her decision-making power at home. First, parental education shapes wives' gender role attitudes and

behaviors. Maternal education is associated with more egalitarian gender attitudes of the children in rural China (T. Chen, 2011). More educated parents tend to hold more egalitarian attitudes towards women's roles (Y. Zhang, Kao, & Hannum, 2007) and these attitudes are transmitted from one generation to the next through gender-role socialization at home (Thornton et al., 1983). Observations of how parents perform gender roles during childhood influence how children perform these roles in their own marriages (Cunningham, 2001). Early socialization environments with more educated parents help wives accumulate skills and knowledge that enhance their abilities to make household decisions (Fox, 1973). Wives with more educated parents may thus acquire more egalitarian attitudes, be more assertive in family negotiations (Malhotra & Mather, 1997), and have more decision-making power (Shu, Zhu, & Zhang, 2013; Xu & Lai, 2002).

Second, wives with more educated parents are more likely to receive financial support from their families of origin and thus acquire more economic resources. An important form of financial transfer from the wife's natal family to her is dowry. In China, dowry is a premortem inheritance that symbolizes the social standing of the bride's natal family and is intended to prevent maltreatment of the bride by her in-laws (J. Zhang & Chan, 1999). The bride is supposed to have the sole control over her dowry even when she lives with her parents-in-law. Therefore, dowry is an important indication of a wife's individual control of economic resources within marriage (Brown, 2009). Prior studies suggest that the dowry enhances the wife's bargaining power in intrahousehold allocation decisions in rural China (Brown, 2009; J. Zhang & Chan, 1999).

Third, wives' parents may provide important social support that increases wives' non-economic resources. Postmarital daughter-parent bonds in rural China were traditionally weak

given strong patriarchal norms (Whyte & Xu, 2003). However, recent evidence suggests that ties between married daughters and their natal families have strengthened and support exchanges have increased in contemporary rural China (Judd, 1989; Shi, 2009; Yang & Zheng, 2013; W. Zhang, 2009). Married daughters benefit from financial advice, emotional support, and help with child care from their natal families (Shi, 2009; W. Zhang, 2009). Economic and non-economic support from the wife's natal families improves her bargaining position at home and increases her decision-making power (Katz & Peres, 1985).

A wife's parental education may indirectly enhance her decision-making power at home by increasing her own education. Despite the strong son preference for old-age support in rural China (Cong & Silverstein, 2012), parental education increases a child's education for both sons and daughters (Connelly & Zheng, 2003). More educated mothers are less likely to hold traditional gender attitudes and have higher educational aspirations for their daughters than less educated mothers (Y. Zhang et al., 2007). More educated parents provide more goods for educational purposes and spend more time helping their children with homework, and the allocation of these educational investments does not vary by the gender of the child (Brown, 2006). Wives' education may enhance their power at home by increasing their economic resources (Xu & Lai, 2002), exposing them to more egalitarian gender attitudes (Shu, 2004), and enhancing their abilities to make household decisions (Kabeer, 2005).

This study hypothesizes that the wife's parental education is directly associated with her decision-making power, net of her own education. This paper provides some exploratory analyses on whether the association between wives' parental education and their decision-making power may be mediated by some observed measures of parental influence on gender-role

socialization and economic and non-economic resources. However, a formal test of these mediating mechanisms is beyond the scope of this study.

## Education of Parents-in-law and Household Decision-Making

The education of wives' parents-in-law may undermine the association between wives' parental education and their decision-making power at home because the marital power bargain between the husband and the wife may be determined by the relative resources of the husband's and the wife's respective natal families.

Resource theory posits that each spouse's decision-making power is determined by the value of resources a spouse contributes to the marriage (Blood & Wolfe, 1960). Each spouse provides the other with access to his or her resources to satisfy the latter's needs in exchange for the latter's compliance. Both wives' absolute level of resources and their level of resources relative to their husbands' are expected to increase their power (Blumberg & Coleman, 1989). The balance of power will be on the side of that partner who contributes greater resources to the marriage (Blood & Wolfe, 1960). These resources are not limited to economic ones and can be noneconomic, such as affection and companionship (McDonald, 1980; Safilios-Rothschild, 1976). A spouse's parental education is a power resource (Becker, Fonseca-Becker, & Schenck-Yglesias, 2006; Fox, 1973). Parents provide important economic resources such as housing and lands (Jiang et al., 2015; W. Zhang, 2009), as well as noneconomic resources such as social capital, emotional support, child care support, and housework help (Riley, 1994; Shi, 2009; Zeng & Xie, 2014; W. Zhang, 2009).

Prior studies of Turkish and Jewish families suggest that the wife's parental education has a stronger effect on her power than the husband's parental education on his (Fox, 1973; Katz & Peres, 1985). The husband's parental education may be weakly associated with household

decision-making in societies with strong patriarchal norms because the husband's power is ascribed (Rodman, 1972). However, the effect of the wife's parental education on her power may depend on the husband's parental education. Wives whose natal families are of higher social status than their husbands' tend to have more decision-making power in China (Yang & Zheng, 2013; Zuo & Bian, 2005). Wives' parents may provide more resources than husbands' parents when wives' parents are more educated than husbands' parents. Conversely, as the education of wives' parents-in-law increases, the relative resources provided by their own parents decrease. Therefore, the association between wives' parental education and their decision-making power at home weakens as husbands' parental education increases.

It is worth noting that an alternative approach to study how the relative resources of the wife's and the husband's respective natal families influence household decision-making is to examine the difference between her and her husband's parental education. This study focuses on the interaction between her and her husband's parental education because the main purpose of this study is to examine the direct association between the wife's parental education and her decision-making power and the variation in this association by the husband's parental education.

In summary, this study hypothesizes that a higher level of education of the wife's parents is associated with a higher probability of her having the final say on household decisions, net of her own education. However, the association between the wife's parental education and her decision-making power is expected to weaken as the husband's parental education increases.

#### **METHODS**

#### Data

This paper used 2010 and 2014 data from the China Family Panel Studies (CFPS). The CFPS is a nearly nationwide longitudinal biennial survey since 2010 in 25 provinces or their

administrative equivalents, representative of 95% of the national population (Xie & Lu, 2015). The unit of analysis in this paper is a wife. The survey constitutes of individual modules on every household member and a family module answered by the family respondent<sup>1</sup>. All outcome, predictor, and control variables in the analyses were collected from either wives' interviews or the family module. In the exploratory analyses on whether the association between wives' parental education and decision-making power was mediated by parental influence on gender-role socialization and economic and non-economic resources, husbands' gender and filial attitudes, income, and housework hours were collected from husbands' interviews<sup>2</sup>.

The analytic sample was constructed in the following steps. First, we excluded wives who were not interviewed in 2014. This is because decision-making outcomes and wives' and husbands' gender attitudes were only measured in 2014. Wives' living arrangements and whether wives' and husbands' parents were alive were measured in 2014 to focus on the household structure within which decisions were made. All other covariates were measured in 2010. Of the 13,875 wives surveyed in 2010, 3,558 were not interviewed in 2014. Panel sampling weights were applied to adjust for sampling design and loss to follow-up (Xie & Lu, 2015). Second, we excluded wives who did not live with their husbands. Of the 10,317 wives surveyed in both waves, 1,623 did not live with their husbands in both waves; 44 were no longer married in 2014. Decision-making patterns in households where wives do not live with their husbands are documented elsewhere (Zuo, 2008). Finally, the sample was restricted to wives

-

<sup>&</sup>lt;sup>1</sup> The interviewer asked who the most appropriate person to answer family structure questions was, and this person was selected to be the family respondent. To be selected, this person had to be a household member aged 18 and over.

<sup>&</sup>lt;sup>2</sup> Some husbands of the wives in the sample were not interviewed. The missing values of the variables collected from the husbands' interviews were imputed (Young & Johnson, 2013).

aged 20 to 50 with agricultural *Hukou* in 2010. Sensitivity analyses suggest that the results did not vary by age. The final analytic sample size was 3,943.

Multiple Imputation by Chained Equations was applied to handle missing data. Results were combined across 50 imputations using standard formulas (Rubin, 1987). The main source of missing data was on whether the wife's parents were alive in 2014 and whether the husband's parents were alive in 2014; 30% of wives lacked data on whether their parents were alive in 2014 and 20% on whether their parents-in-law were alive. Multiple imputation models included whether wives' parents-in-law were alive in 2010 (4.3% missing) and 2016 (8% missing) and whether wives' parents were alive in 2010 (6.6% missing) and 2016 (10% missing) as auxiliary variables to augment the imputation<sup>3</sup> (White, Royston, & Wood, 2011).

#### Outcome Variable

This study measured a wife's decision-making power as whether she has the final say on any of the following household financial decisions, 1) household expenditure, 2) savings, investment, and insurance, 3) buying a house, and 4) buying expensive goods (such as refrigerators, air-conditioners, and furniture sets). Initial analyses estimated separate models for whether the wife has the final say on each of the four decisions. The regression results were substantively similar for each decision, although the descriptive distribution of each decision outcome differs. The four decision outcomes have very high internal consistency (Cronbach's alpha = .92). This study thus focused on how the wife's parental education is associated with her

<sup>-</sup>

<sup>&</sup>lt;sup>3</sup> The questions on whether parents were alive were asked in the family module (answered by the family respondent) in 2010 and 2014. In 2010, the module asked whether the parents of each household member were alive. In 2014, the related question was skipped for most of the parents who were not in the household. In 2016, whether parents were alive were asked in the individual modules regardless of whether the parents were in the household. If a parent was alive in 2016, the parent was assumed to be alive in 2014. If a parent was deceased in 2010, the parent was assumed to be deceased in 2014. The remaining missing values were imputed. The results were similar when the analyses controlled for whether wives' parents and in-laws were alive in 2010 instead of whether they were alive in 2014. The results were also similar when the analyses controlled for whether wives' parents and in-laws were alive in 2016 instead of whether they were alive in 2014.

having the final say on at least one realm of household financial decisions. The results were substantively similar when the outcome was measured by the total number of decisions where the wife had the final say.

Decision-making outcomes were reported by the family respondents. The 2014 survey asked the family respondent "who has the final say" on each of the decisions. The interviewer asked who the most appropriate person to answer family structure questions was and chose such a household member aged 18 and over as the family respondent. Of the final analytic sample of married women, 44% of their outcomes were reported by themselves, 40% by their husbands, and 16% by others. The models controlled for who the respondent was. The family respondent was instructed to select one final decision-maker from the household members. The respondent did not have the option to report that no one had the final say or that household members had an equal say. The analyses combined women whose husbands had the final say with those for whom another household member had the final say. The results were substantively similar when they were conditional on the married couple having the final say. A total of 22 wives in the analytic sample had missing values on the outcome. This study included the imputed outcomes because the proportion of missingness on the outcome was very small and the number of imputations was large (Johnson & Young, 2011). The results were similar when imputed outcomes were excluded.

#### Predictor Variables

The main predictors are the educational attainment of the wife, her husband, her parents, and his parents. Years of schooling vary significantly by sex and birth cohort in rural China (Wu & Zhang, 2010). The schooling variable is a percentile score that measures a person's relative education in his or her same-sex five-year birth cohort in the 2010 Census (Population Census

Office, 2012; Zeng & Xie, 2014). This standardization technique helps to adjust for compositional differences in age and sex among the wife, her husband, her parents, and his parents, thereby facilitating comparisons of the associations between the educational attainment of these individuals and wives' decision-making power (Zeng & Xie, 2014).

The following example illustrates how the schooling variable is constructed. In the 2010 Census, 69% of women aged 30 to 34 did not have a high school degree; 85% of women aged 30 to 34 did not have a college degree. Therefore, a woman in the age range from 30 to 34 with a high school education received a percentile score of 77, the mean of 69 and 85. The percentile score for the wife's parents was the maximum of the percentile scores of her father and mother. The results were not sensitive to whether parental education was measured as the maximum or the mean of the percentile scores of the wife's father and mother. The percentile scores of the husband and his parents were measured in the same way as those of the wife and her parents. Sensitivity analyses were conducted to examine whether the results varied using alternative measures of education. The results were substantively similar when education was measured by years of schooling (see Tables A1 and A2 in the Appendix).

#### **Covariates**

The following variables were controlled for in the analyses. First, I controlled for the living arrangements of the wife's parents ( $0 = both\ her\ parents\ were\ deceased\ or\ did\ not\ live\ in$  the same county,  $1 = either\ parent\ lived\ in\ the\ same\ household$ ,  $2 = either\ parent\ lived\ in\ the$  same county) and whether her parents were deceased (0 = none (reference category),  $1 = either\ parent\ is\ deceased$ ,  $2 = both\ deceased$ ). Living arrangements of the husband's parents and whether his parents were deceased were measured in the same way.

Second, demographic characteristics of the wife's parents and parents-in-law were measured by the wife's age, the difference between the wife's age and the husband's age, the difference between the wife's age and the mean age of her parents, the difference between the mean age of the wife's parents and the husband's parents, whether either the wife or the husband was an ethnic minority, and whether the husband had agricultural Hukou. Third, household characteristics included whether the wife's household was in an urban area, whether the household engaged in farm work, number of the wife's children in the household, who the family respondent was (1 = wife (reference category), 2 = husband, 3 = another household member), and the region in which the household was located (1 = North (reference category), 2 = Northeast, 3 = East, 4 = South Central, 5 = Southwest, 6 = Northwest).

This study tested whether the association between parental education and wives' decision-making power was mediated by parental influence on gender-role socialization, economic resources, and non-economic resources. Measures of parental influence on gender-role socialization included wives' and husbands' gender and filial attitudes. Gender attitudes were measured by four items, each of which was rated on a scale of 1 to 5 (1 = *strongly disagree*, 5 = *strongly agree*). The items were 1) "Men should focus on career, while women should focus on family;" 2) "Marrying well is more important for women than doing well;" 3) "Women should have at least one child;" 4) "Men should do half of the housework." Filial attitudes were measured by six items, each of which was rated on a scale of 1 to 5 (1 = *strongly disagree*, 5 = *strongly agree*). The items were 1) "Children should treat parents well however badly parents treat them;" 2) "Children should give up their own pursuits to achieve parents' dreams;" 3) "A man should live with his parents after marriage;" 4) "Women should give birth to at least one boy to continue the family lineage;" 5) "One should do things that glorify the family name" 6)

"Children should visit parents regularly even if they are working away from home." Each item of the gender and filial attitudes was treated separately in the regression models. Second, measures of parental influence on economic resources included the wife's dowry, measured in constant 2010 yuan, the couple's individual annual income, ownership of the household, and migrant status (defined as moving away from one's county at birth). Third, measures of parental influence on non-economic resources included the couple's individual hours of housework. Wives' and husbands' parents may provide noneconomic resources such as help with housework and child care, which may influence wives' and husbands' housework hours. Finally, this study included a measure of parental influence on how the couple met (1= introduced by relatives and friends (reference category), 2 = on their own (the couple met at school, work, residence, other places, or on the internet), 3 = arranged by parents).

## Analytic Strategy

This study estimated a series of logistic regressions to examine the association between wives' parental education and decision-making power. Let Y denote whether the wife has the final say, WP the education of the wife's parents, HP the education of the husband's parents, W the wife's education, and H the husband's education. X is the vector of control variables, including parental and household characteristics. Assuming Y follows a Bernoulli distribution with probability of success  $\pi$ , this study estimated the following logistic models.

Models 1 and 2 test the first hypothesis that a higher level of education of the wife's parents is associated with a higher probability of her having the final say on household decisions. In Model 1,  $\alpha_1$  estimates the association between the wife's parental education and whether she has the final say, net of the husband's parental education. In Model 2,  $\alpha_1^*$  estimates the association between the wife's parental education and whether she has the final say net of her education, her

husband's education, and her parents-in-law's education. This study hypothesizes that  $\alpha_1$  and  $\alpha_1^*$  are significant and positive. Model 2 also allows us to compare the association between the wife's parental education and her decision-making power with the association between her own education and decision-making power by examining the difference between  $\alpha_1^*$  and  $\alpha_4^*$ .

$$logit(\pi) = \alpha_0 + \alpha_1 WP + \alpha_2 HP + \alpha_3 X \tag{1}$$

$$logit(\pi) = \alpha_0^* + \alpha_1^* WP + \alpha_2^* HP + \alpha_2^* X + \alpha_4^* W + \alpha_5^* H$$
 (2)

Models 3 and 4 test the second hypothesis that the association between the wife's parental education and her decision-making power depends on the husband's parental education. Model 4 tests whether the interaction between the wife's parental education and the husband's parental education is mediated by her education and his education. This study hypothesizes that  $\beta_3$  and  $\beta_3^*$  are significant and negative (opposite signs of  $\beta_1$  and  $\beta_1^*$ ) in Models 3 and 4.

$$logit(\pi) = \beta_0 + \beta_1 WP + \beta_2 HP + \beta_3 WP * HP + \beta_4 X$$
(3)

$$logit(\pi) = \beta_0^* + \beta_1^* WP + \beta_2^* HP + \beta_3^* WP * HP + \beta_4^* X + \beta_5^* W + \beta_6^* H$$
(4)

Model 5 tests whether the associations between wives' parental education, husbands' parental education, the interaction between wives' and husbands' parental education, and whether wives have the final say are mediated by gender-role socialization and economic and noneconomic resources. M is the vector of mediating variables, including measures of parental influence on mating, gender-role socialization, and economic and noneconomic resources.

$$logit(\pi) = \gamma_0 + \gamma_1 WP + \gamma_2 HP + \gamma_3 WP * HP + \gamma_4 W + \gamma_5 H + \gamma_6 X + \gamma_7 M$$
(5)

## RESULTS

## Descriptive Results

Table 1 describes sample outcome distributions; 42% of the wives in the analytic sample had the final say on at least one of the financial decisions measured. Wives were the least likely

to have the final say on buying a house. For about 11% of the sample, household members other than wives and their husbands had the final say.

Table 1 Sample Percentages of the Outcome Variables (N = 3,943)

	%
Wife has the final say on any of the following decisions	42.3
Who has the final say on:	
Allocation of household expenditure	
Wife	30.6
Husband	58.3
Other	11.1
Savings, investment, and insurance	
Wife	27.4
Husband	62.5
Other	10.1
Buying a house	
Wife	22.3
Husband	67.0
Other	10.7
Buying expensive consumer goods, such as refrigerators, air-conditioners, and furniture sets	
Wife	32.7
Husband	57.4
Other	9.9

*Note*: Numbers were weighted by survey panel sampling weights to adjust for loss to follow-up and sampling design and combined across 50 imputations.

Table 2 describes sample distributions of the education of the wife, her parents, the husband, and his parents. Wives on average had fewer years of education than their husbands (5.5 vs. 7). Wives' and husbands' parents had similar years of education. Although the wife on average had more years of schooling than her parents (5.5 vs. 4.2), she had lower percentile scores of education than her parents (25.8 vs. 39.5). This finding is due to educational differences by birth cohort. If the wife and her mother both had a middle school education, the wife would receive a lower percentile score than her mother because receiving a middle school education is more prevalent among younger cohorts than older cohorts. Similarly, the husband's parents had higher percentile scores than both the wife's and husband's parents, because the husband's parents were older, on average, than the wife's parents and the husband. The mean percentile scores of the wife, her parents, her husband, and husband's parents would have been

closer to 50 had this study used the distribution of education by age and sex in the analytic sample instead of the census to construct the percentile scores. The results were substantively similar when education was measured as a person's relative education in his or her same-sex five-year birth cohort in the analytic sample.

Table 2 Sample Descriptive Statistics of Educational Attainment of Wives, Wives' Parents, Husbands, Husbands' Parents (N = 3,943)

Variable	Mean	SD
Years of education (0-22)		
Wife	5.5	4.0
Husband	7.0	3.9
Wife's parents	4.2	4.2
Husband's parents	4.2	4.1
Education in percentile score (1-100)		
Wife	25.8	25.4
Husband	32.3	27.3
Wife's parents	39.5	26.3
Husband's parents	40.6	25.3

*Note*: Numbers were weighted by survey panel sampling weights to adjust for loss to follow-up and sampling design and combined across 50 imputations.

Table 3 describes sample distributions of the covariates. Although patrilocal coresidence was more prevalent than matrilocal (28.9% vs. 3.5%), most wives lived in the same county as their own parents. The majority (71%) of wives in the sample were introduced to their husbands by their relatives and friends, though arranged marriages were rare (2.8%). Wives' mean annual income in local currency was only a third of their husbands'. Husbands were more likely to own the household than their wives (72% vs. 12%). For 74% of wives in the sample, their households engaged in farm work, although 40% of wives lived in urban areas. Wives' and husbands' attitudes on filial obligations and gender roles were similar.

Table 3 Sample Descriptive Statistics of Covariates (N = 3,943)

Variables	Mean/%
Parental characteristics	
Living arrangements of wife's parents	
Either of wife's parents lives in the same household	3.5
Either of wife's parents lives in the same county	64.5
Both of wife's parents lives in a different county or are deceased	32.0

Living arrangements of husband's parents	
Either of husband's parents lives in the same household	28.9
Either of husband's parents lives in the same county	43.3
Both of husband's parents lives in a different county or are deceased	27.8
Wife's number of deceased parents	
Wife has no deceased parents	52.6
Either parent of the wife is deceased	31.0
Wife has no living parents	16.4
Husband's number of deceased parents	
Husband has no deceased parents	40.5
Either parent of the husband is deceased	37.4
Husband has no living parents	22.1
Wife's age in 2010	38.8
Wife's age – husband's age in 2010	-1.9
Mean age of wife's parents <sup>a</sup> – wife's age in 2010	29.5
Mean age of wife's parents – mean age of husbands' parents a in 2010	-1.9
Either wife or husband is an ethnic minority	14.1
Husband has agricultural <i>Hukou</i>	93.7
Marital characteristics	
Dowry in 2010 constant yuan	3,425.8
How the couple met	
Introduced by relatives and friends	70.6
By themselves	26.6
Arranged marriage	2.8
Individual characteristics	
Wife's income in 2010 (yuan)	5,362.6
Husband's income in 2010 (yuan)	14,494.1
Wife owns the household	11.8
Husband owns the household	71.5
Wife lives away from her county at birth	21.1
Husband lives away from his county at birth	10.6
Wife's hours of housework per day	2.9
Husband's hours of housework per day	1.3
Household characteristics	
Number of wife's children in the household	1.3
The household is in an urban area	37.3
The household engages in farm work	73.7
Family questionnaire is answered by	
Wife	44.2
Husband	40.2
Other	15.6
Region where the household is located	
North	20.7
Northeast	8.2
East	22.9
South Central	22.6
Southwest	20.6
Northwest	4.9
Wife's attitudes toward $(1-5, 1 = strongly disagree, 5 = strongly agree)$	
"Children should treat parents well however badly parents treat them."	4.6
"Children should give up their own pursuits to achieve parents' dreams."	3.7

"A man should live with his parents after marriage."	3.6
"Women should give birth to at least one boy to continue the family lineage."	3.4
"One should do things that glorify the family name."	4.0
"Children should visit parents regularly even if they are working away from home."	4.6
"Men should focus on career, while women should focus on family."	4.2
"Marrying well is more important for women than doing well."	3.8
"Women should have at least one child."	4.4
"Men should do half of the housework."	4.1
Husband's attitudes toward (1-5, 1 = strongly disagree, 5 = strongly agree)	
"Children should treat parents well however badly parents treat them."	4.7
"Children should give up their own pursuits to achieve parents' dreams."	3.7
"A man should live with his parents after marriage."	3.6
"Women should give birth to at least one boy to continue the family lineage."	3.6
"One should do things that glorify the family name."	4.1
"Children should visit parents regularly even if they are working away from home."	4.6
"Men should focus on career, while women should focus on family."	4.2
"Marrying well is more important for women than doing well."	3.5
"Women should have at least one child."	4.1
"Men should do half of the housework."	4.0

*Note*: Numbers were weighted by survey panel sampling weights to adjust for loss to follow-up and sampling design and combined across 50 imputations. a. The age of a deceased parent was calculated as the difference between 2010 and the parent's year at birth.

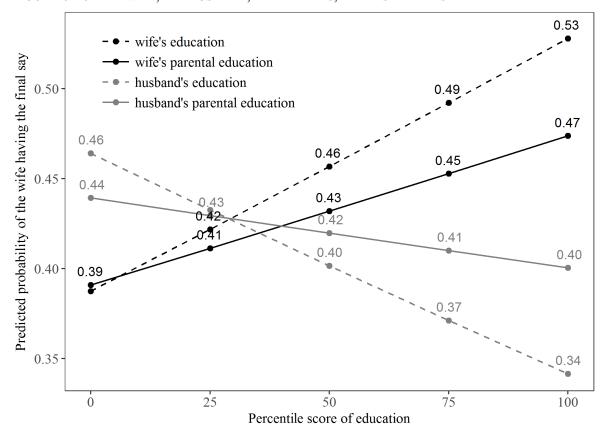
## Logistic Regressions

Table 4 presents the multivariate logistic regression results. Model 1 examines how wives' and husband's parental education are associated with wives' decision-making power. As hypothesized, the wife's parental education was positively associated with her having the final say on household decisions. The coefficient of the wife's parental education was 0.53; that is, all else constant, the odds of a wife having the final say if her parental education had been at the 100<sup>th</sup> percentile was 1.7 times the odds of her having the final say if her parental education had been at the 0<sup>th</sup> percentile. The husband's parental education, however, was not associated with the wife's having the final say on household decisions. Model 2 tests whether the associations between wives' and husbands' parental education and wives' decision-making power hold, net of wives' and husbands' education. In the presence of controls for wives' and husbands' education, the coefficient of wives' parental education was slightly smaller (0.45 vs. 0.53) but still statistically significant. The coefficient of wives' parental education was three-fifths of the size

of the coefficient for wives' education (0.45 vs. 0.75). All else constant, the odds of a wife having the final say if her parental education had been at the 100<sup>th</sup> percentile was 1.6 times the odds of a wife having the final say if her parental education had been at the 0<sup>th</sup> percentile. All else constant, the odds of a wife having the final say if her own education had been at the 100<sup>th</sup> percentile was 2.1 times the odds of a wife having the final say if her education had been at the 0<sup>th</sup> percentile.

Figure 1 displays the predicted probabilities of the wife's having the final say by the educational percentiles of the wife, her husband, her parents, and his parents. The predicted probabilities were derived from Model 2 in Table 4. The predicted probabilities were calculated using the "observed value approach," where each of the other covariates was held at the observed values of each observation (Hanmer & Ozan Kalkan, 2013). The relevant probabilities were calculated for each observation and then averaged over all observations. Changing the wife's parental education from the bottom to the top of its distribution would increase the probability of her having the final say by 0.08. In comparison, changing her own education from the bottom to the top of its distribution would increase the probability of her having the final say by 0.14. In other words, the change in the probability of the wife's having the final say when her parental education increased from the 0<sup>th</sup> percentile to the 100<sup>th</sup> percentile was three-fifths of the change in the probability of her having the final say when her own education increased from the 0<sup>th</sup> percentile to the 100<sup>th</sup> percentile. Changing the husband's parental education from the bottom to the top of its distribution would decrease the probability of the wife's having the final say by 0.04. In comparison, changing the husband's education from the bottom to the top of its distribution would decrease the probability of the wife's having the final say by 0.12.

FIGURE 1. PREDICTED PROBABILITY OF THE WIFE'S HAVING THE FINAL SAY ON HOUSEHOLD EXPENDITURE, SAVINGS, HOUSING, OR EXPENSIVE PURCHASE ON THE PERCENTILE SCORES OF EDUCATION OF THE WIFE, THE HUSBAND, HER PARENTS, AND HIS PARENTS



*Note:* Predicted probabilities were derived from Model 2 in Table 4. Dashed black lines plot the predicted probabilities by the wife's education when all other covariates are at their observed values. Solid black lines plot the predicted probabilities by the wife's parental education when all other covariates are at their observed values. Dashed grey lines plot the predicted probabilities by the husband's education when all other covariates are at their observed values. Solid grey lines plot the predicted probabilities by the husband's parental education when all other covariates are at their observed values. Numbers were weighted by survey panel sampling weights to adjust for loss to follow-up and sampling design and combined across 50 imputations.

Table 4 Coefficients from Logistic Regressions of Whether Wives Had the Final Say on Household Expenditure, Savings, Housing, or Expensive Purchase on Percentile Scores of Education (N = 3,943)

	Model 1	Model 2	Model 3	Model 4
Predictor	B (SE B)	B (SE B)	B (SE B)	B (SE B)
Wife's parental education (in percentile score /100)	0.53**	0.45*	1.29**	1.26**
	(0.20)	(0.20)	(0.38)	(0.38)
Husband's parental education (in percentile score /100)	-0.21	-0.21	0.52	0.56
	(0.21)	(0.21)	(0.38)	(0.38)
Wife's education (in percentile score /100)		0.75***		0.77***
		(0.21)		(0.21)
Husband's education (in percentile score /100)		-0.68***		-0.70***
XX70.		(0.19)	1.764	(0.19)
Wife's parental education × Husband's parental education			-1.76*	-1.87*
(in percentile score /100)			(0.75)	(0.75)
Parental characteristics				
Living arrangements of the wife's parents				
(reference = both not in the same county or deceased)				
Either parent of the wife lives in the same household	-0.05	-0.08	-0.04	-0.07
	(0.29)	(0.29)	(0.29)	(0.29)
Either parent of the wife lives in the same county	-0.19	-0.19	-0.19	-0.19
	(0.13)	(0.13)	(0.13)	(0.13)
Living arrangements of the husband's parents				
(reference = both not in the same county or deceased)				
Either parent of the husband lives in the same household	-0.81***	-0.81***	-0.82***	-0.82***
	(0.22)	(0.22)	(0.22)	(0.22)
Either parent of the husband lives in the same county	-0.38†	-0.37†	-0.39†	-0.38†
****	(0.21)	(0.21)	(0.21)	(0.21)
Wife's number of deceased parents (reference = none)				
Either parent of the wife is deceased	0.10	0.10	0.11	0.11
www.a.t.	(0.12)	(0.12)	(0.12)	(0.12)
Wife has no living parents	-0.24	-0.26	-0.23	-0.25
II -1 - 12 12 1 1	(0.20)	(0.20)	(0.20)	(0.20)
Husband's number of deceased parents (reference = none)		0.40		
Either parent of the husband is deceased	0.18	0.19	0.18	0.19
Y 1 11 11 11 1	(0.13)	(0.13)	(0.13)	(0.13)
Husband has no living parents	-0.45†	-0.45†	-0.47†	-0.46†
W:C.2	(0.25)	(0.25) 0.01	(0.25) 0.01	(0.25)
Wife's age	0.01 (0.01)	(0.01)	(0.01)	0.01 (0.01)
Wife's age – husband's age	0.01)	0.01)	0.01)	0.00
whe sage – husband sage	(0.01)	(0.02)	(0.01)	(0.02)
Mean age of wife's parents – mean age of husbands' parents	-0.01	-0.01	-0.01	-0.01
ividui age of wife 3 parents mean age of hasbands parents	(0.01)	(0.01)	(0.01)	(0.01)
Mean age of wife's parents – wife's age	0.01	0.01	0.00	0.01
Medit age of wife a parental wife a age	(0.01)	(0.01)	(0.01)	(0.01)
Either wife or husband is an ethnic minority	-0.33*	-0.31*	-0.32*	-0.30†
	(0.16)	(0.15)	(0.16)	(0.15)
Husband has agricultural <i>Hukou</i> in 2014	-0.05	$-0.12^{'}$	$-0.07^{'}$	-0.14
	(0.20)	(0.21)	(0.20)	(0.21)
Household characteristics	` ,	,	,	, ,
Number of children in the household	0.12*	0.13*	0.13*	0.13*
1. WILLOUT OF CHINGS OF THE MICHOCHOIG	U.12	0.15	0.15	0.15

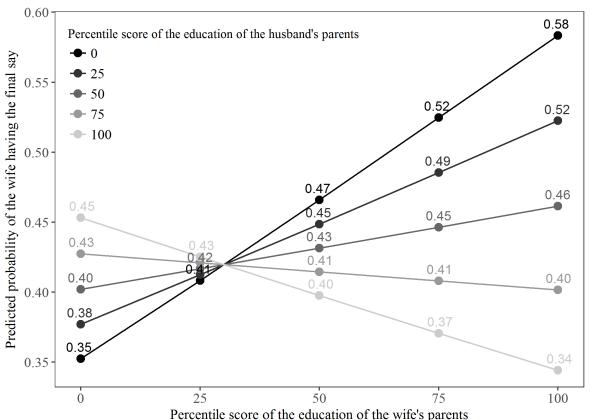
The household is in an urban area $ \begin{array}{ccccccccccccccccccccccccccccccccccc$		(0.05)	(0.05)	(0.05)	(0.05)
The household engages in farm work	The household is in an urban area	0.15	0.13	0.15	0.14
Family questionnaire is answered by (reference = wife) Husband $ \begin{array}{ccccccccccccccccccccccccccccccccccc$		(0.11)	(0.11)	(0.11)	(0.11)
Family questionnaire is answered by (reference = wife)  Husband $-2.00*** -1.95*** -2.00*** -1.95***$ $(0.10)                                   $	The household engages in farm work	-0.14	-0.14	-0.13	-0.13
Husband $-2.00*** -1.95*** -2.00*** -1.95*** (0.10) (0.10) (0.10)$		(0.12)	(0.12)	(0.12)	(0.12)
$(0.10) \qquad (0.10) \qquad (0.10) \qquad (0.10)$	Family questionnaire is answered by (reference = wife)				
$(0.10) \qquad (0.10) \qquad (0.10) \qquad (0.10)$	Husband	-2.00***	-1.95***	-2.00***	-1.95***
Othor		(0.10)	(0.10)	(0.10)	(0.10)
Other $-1.83^{+++}$ $-1.83^{+++}$ $-1.84^{+++}$ $-1.82^{+++}$	Other	-1.85***	-1.83***	-1.84***	-1.82***
$(0.15) \qquad (0.15) \qquad (0.15) \qquad (0.15)$		(0.15)	(0.15)	(0.15)	(0.15)
Region where the household is located (reference =	Region where the household is located (reference =				
northern)	northern)				
Northeast 0.66*** 0.65*** 0.68***	Northeast	0.66***	0.65***	0.68***	0.68***
$(0.18) \qquad (0.18) \qquad (0.18) \qquad (0.18)$		(0.18)	(0.18)	(0.18)	(0.18)
East $-0.17$ $-0.14$ $-0.15$ $-0.13$	East	-0.17	-0.14	-0.15	-0.13
$(0.15) \qquad (0.15) \qquad (0.15) \qquad (0.15)$		(0.15)	(0.15)	(0.15)	(0.15)
South Central $-0.50*** -0.47*** -0.50*** -0.47***$	South Central	-0.50***	-0.47***	-0.50***	-0.47***
$(0.14) \qquad (0.14) \qquad (0.14) \qquad (0.14)$		(0.14)	(0.14)	(0.14)	(0.14)
Southwest $-0.11$ $-0.14$ $-0.10$ $-0.12$	Southwest	-0.11	-0.14	-0.10	-0.12
$(0.17) \qquad (0.17) \qquad (0.17) \qquad (0.17)$		(0.17)	(0.17)	(0.17)	(0.17)
Northwest $-0.60** -0.59** -0.58** -0.57**$	Northwest	-0.60**	-0.59**	-0.58**	-0.57**
$(0.21) \qquad (0.21) \qquad (0.21) \qquad (0.21)$		(0.21)	(0.21)	. ,	(0.21)
Constant 0.65 0.64 0.42 0.40	Constant				
$(0.51) \qquad (0.52) \qquad (0.52) \qquad (0.52)$		(0.51)	(0.52)	(0.52)	(0.52)
$\chi^2$ 529.1 542.1 531.1 544.3	$\chi^2$		542.1		
<u>df</u> <u>26 28 27 29</u>	df	26	28	27	29

Note:  $\dagger p < .1. *p < .05. **p < .01. ***p < .001$ . Numbers were weighted by survey panel sampling weights to adjust for loss to follow-up and sampling design and combined across 50 imputations.

Model 3 tests the interaction between wives' parental education and husbands' parental education. The coefficient for wives' parental education was positive whereas the coefficient for the interaction term was negative. In other words, consistent with the hypothesis, the association between wives' parental education and decision-making power decreased as husbands' parental education increased. As shown in Model 4, the interaction remained significant (and of similar magnitude) after controlling for wives' and husbands' education. The linear combination of the coefficient of wives' parental education and the interaction term was –0.61 and not statistically significant (p = .19). In other words, an increase in wives' parental education was not associated with an increase in wives' decision-making power when husbands' parental education was at the top of its distribution.

Figure 2 displays the predicted probabilities of the wife's having the final say by the educational percentiles of the wife's parents and the husband's parents. The predicted probabilities were derived from Model 4 in Table 4. If all other variables are held constant at their means or proportions, changing the wife's parental education from the bottom to the top of its distribution would increase the probability of her having the final say by 0.23 when the husband's parental education was at the bottom of its distribution. However, changing the wife's parental education from the bottom to the top of its distribution would decrease the probability of her having the final say by 0.11 when the husband's parental education was at the top of its distribution.

FIGURE 2. PREDICTED PROBABILITY OF THE WIFE'S HAVING THE FINAL SAY ON HOUSEHOLD EXPENDITURE, SAVINGS, HOUSING, OR EXPENSIVE PURCHASE ON THE WIFE'S' AND HER HUSBAND'S PARENTAL EDUCATION IN PERCENTILE SCORES



*Note:* Predicted probabilities were derived from Model 4 in Table 4. Covariates other than wives' and husbands' parental education in percentile scores were held at their observed values. Numbers were combined across 50 imputations.

Table A2 in the Appendix presents the multivariate logistic regression results that explored possible mediating mechanisms of how parental education affects wives' decision-making power. Observed measures of potential mediators including dowry, how the couple met, wives' and husbands' respective income, ownership of the household, migrant status, housework hours, and attitudes about filial obligations and gender roles explained very little of the association between parental education and wives' decision-making power.

## Sensitivity Analyses

This study conducted the following sensitivity analyses. First, squared terms of parental education were included to examine whether the association between parental education and wives' decision-making power was non-linear. The squared terms were not significant. Second, interaction terms between parental education and living arrangements were included to examine whether the association between parental education and wives' decision-making power varied by whether the married couple lived with the husband's or the wife's parents, whether the married couple lived close to the husband's or the wife's parents, and whether the married couple had any living parents. The interactions were not significant. These results suggest that the association between wives' parental education and decision-making power may not be contingent on the physical presence of the parents. The education of deceased parents may influence wives' decision-making power through early gender-role socialization. Third, interaction terms between parental education and the wife's and the husband's education were included to examine whether the association between parental education and decision-making power varied by the wife's and the husband's education. The interactions were not significant. Finally, the interaction term between the wife's education and the husband's education was

included to examine whether the association between the wife's education and decision-making power varied by the husband's education. The interaction was not significant.

#### DISCUSSION

This study extends prior research on household decision-making by examining the role of parents and parents-in-law. It examines whether the wife's parental education and her husband's parental education are associated with the wife's decision-making power, net of her and her husband's education. This study finds that on average, in rural China, a higher level of wives' parental education, is associated with an increase in wives' probability having the final say on household financial decisions, net of the education of wives, husbands, and husbands' parents. However, the association between wives' parental education and decision-making power decreases as their husbands' parental education increases.

Observed measures of potential mediators, including wives' dowries, who introduced the couple, wives' and husbands' income, ownership of the household, migrant status, housework hours, and attitudes towards filial obligations and gender roles, explain very little of the association between parental education and wives' decision-making power. These results, however, should not be interpreted as evidence that parental education does not affect wives' decision-making power through other indicators of gender-role socialization and economic and noneconomic resources. This study lacked data on direct measures of economic and noneconomic parental support, such as financial and child care support received from wives' parents and in-laws and the frequency of contact with wives' parents and in-laws. Although it measured spousal ownership of the household, it lacked direct measures of whether the wife's and the husband's parents were involved in purchasing the house. This study focuses on parental education rather than parental occupation to compare the association between wives' education

and decision-making power with the association between wives' parental education and decision-making power. Future research may examine the association between the wealth of the family of origin and wives' decision-making power.

In conclusion, the association between education and marital power is multigenerational in rural China. Educational attainment in one generation has a lingering impact on the marital power of the next generation. Although on average, wives' parental education is associated with a higher probability of wives' having the final say on household financial decisions, the association between wives' parental education and decision-making power decreases as husbands' parental education increases. These findings demonstrate that marital relationships are embedded in extended family relationships. Research on decision-making power in marriage should consider the impact of the extended family. The division of household decision-making power is determined not only by wives' and husbands' education but also by the education of the couples' parents.

#### REFERENCES

- Becker, S., Fonseca-Becker, F., & Schenck-Yglesias, C. (2006). Husbands' and wives' reports of women's decision-making power in Western Guatemala and their effects on preventive health behaviors. *Social Science & Medicine*, 62(9), 2313–2326.
  https://doi.org/10.1016/J.SOCSCIMED.2005.10.006
- Blood, R. O., & Wolfe, D. M. (1960). *Husbands & wives: the dynamics of married living*. Glencoe, IL: Free Press.
- Blumberg, R. L., & Coleman, M. T. (1989). A theoretical look at the gender balance of power in the American couple. *Journal of Family Issues*, *10*(2), 225–250. https://doi.org/10.1177/019251389010002005

- Brown, P. H. (2006). Parental education and investment in children's human capital in rural China. *Economic Development and Cultural Change*, *54*(4), 759–789. https://doi.org/10.1086/503582
- Brown, P. H. (2009). Dowry and intrahousehold bargaining. *Journal of Human Resources*, 44(1), 25–46. https://doi.org/10.3368/jhr.44.1.25
- Chan, K. W., & Zhang, L. (1999). The Hukou system and rural-urban migration in China:

  Processes and changes. *The China Quarterly*, *160*, 818–855.

  https://doi.org/10.1017/S0305741000001351
- Chen, F. (2005). Residential patterns of parents and their married children in contemporary

  China: A life course approach. *Population Research and Policy Review*, 24(2), 125–148.

  https://doi.org/10.1007/s11113-004-6371-9
- Chen, T. (2011). Zhongguo nongcun nüxing de xingbie juese yishi ji qi yingxiang yinsu [Factors influencing rural women's awareness of gender roles in China: Based on the data of CGSS2006]. Funü Yanjiu Luncong [Collection of Women's Studies], 1, 17–22.
- Cong, Z., & Silverstein, M. (2012). A Vignette Study on Gendered Filial Expectations of Elders in Rural China. *Journal of Marriage and Family*, 74(3), 510–525.
- Connelly, R., & Zheng, Z. (2003). Determinants of school enrollment and completion of 10 to 18 year olds in China. *Economics of Education Review*, 22(4), 379–388. https://doi.org/10.1016/S0272-7757(02)00058-4
- Cunningham, M. (2001). The influence of parental attitudes and behaviors on children's attitudes toward gender and household labor in early adulthood. *Journal of Marriage and Family*, 63(1), 111–122. https://doi.org/10.1111/j.1741-3737.2001.00111.x
- Fox, G. L. (1973). Another look at the comparative resources model: Assessing the balance of

- power in Turkish marriages. *Journal of Marriage and the Family*, *35*(4), 718–730. https://doi.org/10.2307/350885
- Fu, Q., & Ren, Q. (2010). Educational inequality under China's rural-urban divide: The Hukou system and return to education. *Environment and Planning A: Economy and Space*, 42(3), 592–610. https://doi.org/10.1068/a42101
- Guo, M., Chi, I., & Silverstein, M. (2015). Intergenerational support and depression among

  Chinese older adults: do gender and widowhood make a difference? *Ageing and Society*, 1–

  30. https://doi.org/10.1017/S0144686X15001403
- Hanmer, M. J., & Ozan Kalkan, K. (2013). Behind the curve: Clarifying the best approach to calculating predicted probabilities and marginal effects from limited dependent variable models. *American Journal of Political Science*, *57*(1), 263–277.
   https://doi.org/10.1111/j.1540-5907.2012.00602.x
- Helms, H. M. (2013). Marital relationships in the twenty-first century. In *Handbook of Marriage* and the Family (pp. 233–254). Boston: Springer. https://doi.org/10.1007/978-1-4614-3987-5\_11
- Hu, W., Sze, Y. T., Chen, H., & Fang, X. (2015). Actor–partner analyses of the relationship between family-of-origin triangulation and marital satisfaction in Chinese couples. *Journal of Child and Family Studies*, 24(7), 2135–2146. https://doi.org/10.1007/s10826-014-0015-4
- Hu, Y. (2016). Marriage of matching doors: Marital sorting on parental background in China.

  \*Demographic Research\*, 35, 557–580. https://doi.org/10.4054/DemRes.2016.35.20
- Jiang, Q., Zhang, Y., & Sánchez-Barricarte, J. J. (2015). Marriage expenses in rural China.
  China Review, 15, 207–236. https://doi.org/10.2307/24291934
- Johnson, D. R., & Young, R. (2011). Toward best practices in analyzing datasets with missing

- data: Comparisons and recommendations. *Journal of Marriage and Family*, 73(5), 926–945. https://doi.org/10.1111/j.1741-3737.2011.00861.x
- Judd, E. R. (1989). Niangjia: Chinese women and their natal families. *The Journal of Asian Studies*, 48(3), 525–544. https://doi.org/10.2307/2058638
- Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third millennium development goal 1. *Gender & Development*, *13*(1), 13–24. https://doi.org/10.1080/13552070512331332273
- Katz, R., & Peres, Y. (1985). Is resource theory equally applicable to wives and husbands? *Journal of Comparative Family Studies*, 16(1), 1–10. https://doi.org/10.2307/41601526
- Lee, E., & Mock, M. R. (2005). Chinese families. In M. McGoldrick, J. Giordano, & N. Garcia-Preto (Eds.), *Ethnicity and family therapy* (3rd ed., pp. 302–318). New York: The Guilford Press.
- Liu, W. T., Hutchison, I. W., & Hong, L. K. (1973). Conjugal power and decision making: A methodological note on cross-cultural study of the family. *American Journal of Sociology*, 79(1), 84–98. https://doi.org/10.1086/225508
- Malhotra, A., & Mather, M. (1997). Do schooling and work empower women in developing countries? Gender and domestic decisions in Sri Lanka. *Sociological Forum*, *12*(4), 599–630. https://doi.org/10.1023/A:1022126824127
- McDonald, G. W. (1980). Family power: The assessment of a decade of theory and research, 1970-1979. *Journal of Marriage and the Family*, 42(4), 841–854. https://doi.org/10.2307/351828
- Riley, N. E. (1994). Interwoven lives: Parents, marriage, and guanxi in China. *Journal of Marriage and the Family*, *56*(4), 791–803. https://doi.org/10.2307/353592

- Rodman, H. (1972). Marital power and the theory of resources in cultural context. *Journal of Comparative Family Studies*, *3*(1), 50–69. https://doi.org/10.2307/41600800
- Rubin, D. B. (1987). Multiple imputation for nonresponse in surveys. New York: Wiley.
- Safilios-Rothschild, C. (1976). A macro- and micro-examination of family power and love: An exchange model. *Journal of Marriage and the Family*, *38*(2), 355–362. https://doi.org/10.2307/350394
- Shi, L. (2009). "Little quilted vests to warm parents": Redefining the gendered practice of filial piety in rural north-eastern China." *The China Quarterly*, *198*, 348–363. https://doi.org/10.1017/S0305741009000344
- Shu, X. (2004). Education and gender egalitarianism: The case of China. *Sociology of Education*, 77(4), 311–336. https://doi.org/10.1177/003804070407700403
- Shu, X., Zhu, Y., & Zhang, Z. (2013). Patriarchy, resources, and specialization: Marital decision-making power in urban China. *Journal of Family Issues*, *34*(7), 885–917. https://doi.org/10.1177/0192513X12450001
- Song, J., & Li, L. (2017). Mate selection in rural China. In X. Zang & L. X. Zhao (Eds.), *Handbook on the Family and Marriage in China* (pp. 75–88). Cheltenham, UK: Edward Elgar Publishing. https://doi.org/https://doi.org/10.4337/9781785368196.00010
- Thornton, A., Alwin, D. F., & Camburn, D. (1983). Causes and consequences of sex-role attitudes and attitude change. *American Sociological Review*, 48(2), 211–227. https://doi.org/10.2307/2095106
- White, I. R., Royston, P., & Wood, A. M. (2011). Multiple imputation using chained equations:

  Issues and guidance for practice. *Statistics in Medicine*, *30*(4), 377–399.

  https://doi.org/10.1002/sim.4067

- Whyte, M. K., & Xu, Q. (2003). Support for aging parents from daughters versus sons. In M. K. Whyte (Ed.), *China's revolutions and intergenerational relations* (pp. 167–196). Ann Arbor: University of Michigan Center for China Studies.
- Wu, X., & Treiman, D. J. (2004). The household registration system and social stratification in China: 1955-1996. *Demography*, 41(2), 363–384. https://doi.org/10.1353/dem.2004.0010
- Wu, X., & Treiman, D. J. (2007). Inequality and equality under Chinese socialism: The Hukou system and intergenerational occupational mobility. *American Journal of Sociology*, *113*(2), 415–445. https://doi.org/10.1086/518905
- Wu, X., & Zhang, Z. (2010). Changes in educational inequality in China, 1990-2005: Evidence from the population census data. *Research in the Sociology of Education*, 17, 123–152. https://doi.org/10.1108/S1479-3539(2010)0000017007
- Xie, Y., & Lu, P. (2015). The sampling design of the China Family Panel Studies (CFPS). Chinese Journal of Sociology, 1(4), 471–484. https://doi.org/10.1177/2057150X15614535
- Xu, X., & Lai, S. (2002). Resources, gender ideologies, and marital power: The case of Taiwan. *Journal of Family Issues*, 23(2), 209–245. https://doi.org/10.1177/0192513X02023002003
- Yang, Y., & Zheng, D. (2013). Hunyin jiating zhong de funü diwei [Women's status in marriage and family]. In X. Song & Y. Zhen (Eds.), *Xin shiqi zhongguo funü shehui diwei diaocha yanjiu [Investigation of Chinese women's social status in the new era]* (pp. 324–390). Beijing: Zhongguo funü chubanshe.
- Young, R., & Johnson, D. R. (2013). Methods for handling missing secondary respondent data. *Journal of Marriage and Family*, 75(1), 221–234. https://doi.org/10.1111/j.1741-3737.2012.01021.x
- Zeng, Z., & Xie, Y. (2014). The effects of grandparents on children's schooling: Evidence from

- rural China. Demography, 51(2), 599–617. https://doi.org/10.1007/s13524-013-0275-4
- Zhang, J., & Chan, W. (1999). Dowry and wife's welfare: A theoretical and empirical analysis. *Journal of Political Economy*, 107(4), 786–808. https://doi.org/10.1086/250079
- Zhang, W. (2009). "A Married out Daughter Is like Spilt Water"? Women's Increasing Contacts and Enhanced Ties with Their Natal Families in Post-Reform Rural North China. *Modern China*, *35*(3), 256–283.
- Zhang, Y., Kao, G., & Hannum, E. (2007). Do mothers in rural China practice gender equality in educational aspirations for their children? *Comparative Education Review*, *51*(2), 131–157. https://doi.org/10.1086/512023
- Zuo, J. (2008). Marital construction of family power among male-out-migrant couples in a Chinese village: A relation-oriented exchange model. *Journal of Family Issues*, *29*(5), 663–691. https://doi.org/10.1177/0192513X07308417
- Zuo, J. (2009). Rethinking family patriarchy and women's positions in presocialist China. *Journal of Marriage and Family*, 71(3), 542–557. https://doi.org/10.1111/j.1741-3737.2009.00618.x
- Zuo, J., & Bian, Y. (2005). Beyond resources and patriarchy: Marital construction of family decision-making power in post-Mao urban China. *Journal of Comparative Family Studies*, 36(4), 601–622. https://doi.org/10.2307/41604037

## **Appendix. Supplementary Material**

Table A1 Coefficients from Logistic Regressions of Whether Wives Had the Final Say on Household Expenditure, Savings, Housing, or Expensive Purchase on Years of Education (N = 3,943)

Model	Model A1	Model A2	Model A3	Model A4
Predictor	B (SE B)	B (SE B)	B (SE B)	B (SE B)
Wife's parental education (in years of schooling)	0.04**	0.03*	0.06**	0.06**
	(0.01)	(0.01)	(0.02)	(0.02)
Husband's parental education (in years of schooling)	-0.01	-0.01	0.01	0.02
	(0.01)	(0.01)	(0.02)	(0.02)
Wife's education (in years of schooling)		0.06***		0.06***
		(0.01)		(0.01)
Husband's education (in years of schooling)		-0.05***		-0.05***
		(0.01)		(0.01)
Wife's parental education × Husband's parental education			-0.01*	-0.01*
(in years of schooling)			(0.00)	(0.00)
Parental characteristics				
Living arrangements of the wife's parents (reference = both				
not in the same county or deceased)				
Either parent of the wife lives in the same household	-0.06	-0.09	-0.04	-0.08
	(0.29)	(0.29)	(0.29)	(0.29)
Either parent of the wife lives in the same county	-0.19	-0.19	-0.19	-0.19
	(0.13)	(0.13)	(0.13)	(0.13)
Living arrangements of the husband's parents (reference =				
both not in the same county or deceased)				
Either parent of the husband lives in the same household	-0.81***	-0.80***	-0.82***	-0.82***
	(0.22)	(0.22)	(0.22)	(0.22)
Either parent of the husband lives in the same county	-0.38†	-0.37†	-0.40†	-0.39†
	(0.21)	(0.21)	(0.21)	(0.21)
Wife's number of deceased parents (reference = none)				
Either parent of the wife is deceased	0.11	0.11	0.11	0.12
	(0.12)	(0.12)	(0.12)	(0.12)
Wife has no living parents	-0.24	-0.25	-0.23	-0.24
Y 1 1 1 01 1 0 ( )	(0.20)	(0.20)	(0.20)	(0.21)
Husband's number of deceased parents (reference = none)				
Either parent of the husband is deceased	0.18	0.19	0.17	0.18
	(0.13)	(0.13)	(0.13)	(0.13)
Husband has no living parents	-0.45†	-0.45†	-0.48†	-0.47†
*****	(0.25)	(0.25)	(0.25)	(0.25)
Wife's age	0.02†	0.02*	0.02†	0.02*
	(0.01)	(0.01)	(0.01)	(0.01)
Wife's age – husband's age	0.01	0.00	0.01	0.00
	(0.02)	(0.02)	(0.02)	(0.02)
Mean age of wife's parents – mean age of husbands' parents	-0.01	-0.01	-0.01	-0.01
Man and afficient amounts = iC-2	(0.01)	(0.01)	(0.01)	(0.01)
Mean age of wife's parents – wife's age	0.01	0.01	0.01	0.01
Either wife or husband is an ethnic minority	(0.01) -0.33*	(0.01) -0.30†	(0.01) -0.32*	(0.01) -0.29†
Entirel whe of husband is an ethine minority				
Husband has rural <i>Hukou</i> in 2014	(0.16) -0.05	(0.16) -0.10	(0.16) -0.06	(0.16) -0.12
Trusvanu nas tutai trukvu ni 2014	-0.03 $(0.20)$	(0.21)	-0.06 $(0.20)$	
Household characteristics	(0.20)	(0.41)	(0.20)	(0.21)
Household Characteristics				

Number of children in the household	0.12*	0.13*	0.12*	0.13*
	(0.05)	(0.05)	(0.05)	(0.05)
The household is in an urban area	0.15	0.13	0.16	0.13
	(0.11)	(0.11)	(0.11)	(0.11)
The household engages in farm work	-0.14	-0.13	-0.14	-0.13
	(0.12)	(0.12)	(0.12)	(0.12)
Family questionnaire is answered by (reference = wife)				
Husband	-2.00***	-1.95***	-2.01***	-1.95***
	(0.10)	(0.10)	(0.10)	(0.10)
Other	-1.84***	-1.84***	-1.83***	-1.83***
	(0.15)	(0.15)	(0.15)	(0.15)
Region where the household is located (reference = northern)			, ,	
Northeast	0.65***	0.65***	0.66***	0.65***
	(0.18)	(0.18)	(0.18)	(0.18)
East	-0.16	-0.13	-0.17	-0.13
	(0.15)	(0.15)	(0.15)	(0.15)
South Central	-0.50***	-0.46***	-0.51***	-0.47***
	(0.14)	(0.14)	(0.14)	(0.14)
Southwest	-0.10	-0.11	-0.11	-0.11
	(0.17)	(0.17)	(0.17)	(0.17)
Northwest	-0.60**	-0.56**	-0.59**	-0.55**
	(0.21)	(0.21)	(0.21)	(0.21)
Constant	0.37	0.26	0.33	0.22
	(0.55)	(0.57)	(0.55)	(0.57)
$\chi^2$	527.5	542.9	531.4	546.1
df	26	28	27	29
7	1 . 11	1	1.	

Note:  $\dagger p < .1$ . \*p < .05. \*\*p < .01. \*\*\*p < .001. Numbers were weighted by survey panel sampling weights to adjust for loss to follow-up and sampling design and combined across 50 imputations.

Table A2 Coefficients from Logistic Regressions of Whether Wives Had the Final Say on Household Expenditure, Savings, Housing, or Expensive Purchase on Selected Observed Mediators (N = 3,943)

Model	Model 5	Model A5
Predictor	B (SE B)	B (SE B)
Wife's parental education	1.13**	0.05**
(Model 5: in percentile score /100) (Model A5: in years of schooling)	(0.40)	(0.02)
Husband's parental education	0.40	0.01
(Model 5: in percentile score /100) (Model A5: in years of schooling)	(0.39)	(0.02)
Wife's parental education × Husband's parental education	-1.61*	-0.00†
(Model 5: in percentile score /100) (Model A5: in years of schooling)	(0.78)	(0.00)
Wife's education	0.61**	0.05***
(Model 5: in percentile score /100) (Model A5: in years of schooling)	(0.22)	(0.01)
Husband's education	-0.87***	-0.06***
(Model 5: in percentile score /100) (Model A5: in years of schooling)	(0.20)	(0.01)
Parental characteristics		
Living arrangements of the wife's parents (reference = both not in the same		
county or deceased)		
Either parent of the wife lives in the same household	0.17	0.16
1	(0.32)	(0.32)
Either parent of the wife lives in the same county	-0.02	-0.02
•	(0.17)	(0.17)
Living arrangements of the husband's parents (reference = both not in the same county or deceased)		
Either parent of the husband lives in the same household	-0.92***	-0.93***
•	(0.23)	(0.23)
Either parent of the husband lives in the same county	-0.53*	-0.54*
	(0.22)	(0.22)
Wife's number of deceased parents (reference = none)		
Either parent of the wife is deceased	0.11	0.12
	(0.13)	(0.12)
Wife has no living parents	-0.19	-0.18
	(0.22)	(0.22)
Husband's number of deceased parents (reference = none)		
Either parent of the husband is deceased	0.22†	0.21
	(0.13)	(0.13)
Husband has no living parents	-0.56*	-0.58*
*****	(0.26)	(0.26)
Wife's age	0.02*	0.02**
W/C 2 1 1 12	(0.01)	(0.01)
Wife's age – husband's age	-0.01	0.00
Mann aga af wife's nevents mann aga af husbanda' nevents	(0.02) -0.01	(0.02)
Mean age of wife's parents – mean age of husbands' parents	-0.01 (0.01)	-0.01
Mean age of wife's parents – wife's age	0.01)	(0.01) 0.01
ivicali age of write 5 parents – write 5 age	(0.01)	(0.01)
Either wife or husband is an ethnic minority	-0.29†	-0.29†
Endot wite of indoduid is all cultile initiotity	(0.16)	(0.16)
Husband has rural <i>Hukou</i> in 2014	-0.11	-0.07
TIGOCATA TAO TATAI TIANON III 201 T	(0.21)	(0.21)
	\ \ - <del>                               </del>	, ∨. <u>~</u> ⊥ <i>∫</i>

Number of children in the household	0.13*	0.13*
The boundary is a second or second	(0.06)	(0.06)
The household is in an urban area	0.09	0.09
The household engages in form work	(0.11) -0.13	(0.11) $-0.13$
The household engages in farm work	(0.13)	(0.13)
Family questionnaire is answered by (reference = wife)	(0.13)	(0.13)
Husband	-1.95***	-1.95***
nusvanu	(0.11)	(0.11)
Other	-1.85***	
Other	(0.15)	(0.15)
Region where the household is located (reference = northern)	(0.13)	(0.13)
Northeast	0.54***	0.53**
Northeast	(0.19)	(0.19)
East	-0.26†	-0.25
Lust	(0.16)	
South Central	-0.44**	-0.43**
South Contrai	(0.14)	
Southwest	-0.30†	
	(0.18)	
Northwest	-0.56**	
	(0.21)	(0.21)
Marital characteristics	,	
Dowry in 2010 constant RMB (in thousands)	-0.01	-0.01
20 mg in 2010 Consumit (in the doubles)	(0.01)	(0.01)
How the couple met (reference = introduced by relatives and friends)	()	()
On their own	-0.05	-0.04
	(0.12)	(0.12)
Arranged by parents	0.16	0.18
gen ty partition	(0.31)	(0.30)
Individual characteristics	,	
Wife's income (in thousands of RMB)	0.00	0.00
,, ( ( (	(0.01)	(0.01)
Husband's income (in thousands of RMB)	0.00	0.00
,	(0.00)	(0.00)
Wife owns the household	0.66***	0.67***
	(0.16)	(0.16)
Husband owns the household	0.01	0.01
	(0.13)	(0.13)
Wife lives away from her birthplace	0.25†	0.26†
	(0.15)	(0.16)
Husband lives away from his birthplace	-0.42*	-0.45*
	(0.17)	(0.17)
Wife's hours of housework per day	-0.01	-0.01
** 1 1 1 1 1 1	(0.03)	(0.03)
Husband's hours of housework per day	-0.02	-0.03
	(0.03)	(0.03)
Wife's attitudes toward (1-5, 1 = strongly disagree, 5 = strongly agree)	2.25	0.0=
"Children should treat parents well however badly parents treat them."	-0.07	-0.07
"Children death disease the beautiful to	(0.07)	(0.07)
"Children should give up their own pursuits to achieve parents' dreams."	-0.08†	-0.07
	(0.05)	(0.05)

"A man should live with his parents after marriage."	-0.12**	-0.12**
"Women should give birth to at least one boy to continue the family lineage."	(0.04) -0.13**	(0.04) -0.12**
women should give onth to at least one boy to continue the family inicage.	(0.04)	(0.04)
"One should do things that glorify the family name."	0.02	0.02
one should do things that grown the running hame.	(0.05)	(0.05)
"Children should visit parents regularly even if they are working away from	0.01	0.00
home."	(0.07)	(0.07)
"Men should focus on career, while women should focus on family."	0.11*	0.11*
	(0.05)	(0.05)
"Marrying well is more important for women than doing well."	-0.05	-0.05
a y 8 ar a a familia a gara	(0.05)	(0.05)
"Women should have at least one child."	0.10†	0.10†
	(0.05)	(0.05)
"Men should do half of the housework."	0.06	0.06
	(0.05)	(0.05)
Husband's attitudes toward $(1-5, 1 = strongly disagree, 5 = strongly agree)$		
"Children should treat parents well however badly parents treat them."	0.02	0.02
, , , , , , , , , , , , , , , , , , ,	(0.07)	(0.07)
"Children should give up their own pursuits to achieve parents' dreams."	$-0.05^{'}$	-0.05
	(0.04)	(0.04)
"A man should live with his parents after marriage."	-0.02	-0.01
•	(0.05)	(0.05)
"Women should give birth to at least one boy to continue the family lineage."	-0.05	-0.05
	(0.04)	(0.04)
"One should do things that glorify the family name."	0.01	0.02
	(0.05)	(0.05)
"Children should visit parents regularly even if they are working away from	-0.06	-0.07
home."	(0.07)	(0.07)
"Men should focus on career, while women should focus on family."	-0.00	0.00
	(0.06)	(0.06)
"Marrying well is more important for women than doing well."	-0.04	-0.04
	(0.04)	(0.04)
"Women should have at least one child."	0.02	0.03
(0.4 1 11.1 1.10 0.1 1 1 1 1 1 1 1 1 1 1 1 1	(0.05)	(0.05)
"Men should do half of the housework."	-0.03	-0.03
	(0.05)	(0.05)
Constant	1.40†	1.36†
2	(0.77)	(0.81)
$\chi^2$	607.2	603.6
$\frac{df}{Nota: \pm n < 1}$ *n < 05 **n < 01 ***n < 001 Numbers were weighted by survey r	60	60

 $\frac{df}{df}$  60

Note:  $\dagger p < .1. *p < .05. **p < .01. ***p < .001$ . Numbers were weighted by survey panel sampling weights to adjust for loss to follow-up and sampling design and combined across 50 imputations.