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Coresidence With Elderly Parents: A Comparative Study of Southeast China and Taiwan

Using recent survey data from the Panel Study of Family Dynamics (PSFD) on 1,655 married persons born in 1964–1976 in southeastern China and Taiwan, we studied coresidence with elderly parents using a multinomial probit model for coresidence type and an ordered probit model for residential distance. The study yielded four findings: (a) Patrilocal coresidence was more prevalent in Taiwan than in China; (b) matrilocal coresidence was more prevalent in China; (c) practical factors mattered in both places; (d) in Taiwan only, a couple's economic resources facilitated breaking away from patrilocal coresidence. The findings suggest that, although economic development does not necessarily result in less traditional familial culture, personal economic

resources may enable individual couples to deviate from tradition.

In Chinese tradition, the ideal family form is an extended, joint household with multiple generations coresiding along male lineages (Chu, Xie, & Yu, 2007; Greenhalgh, 1985; Parish & Willis, 1993, 1994; Thornton & Lin, 1994). In this patrilineal and patrilocal extended family model, the responsibility for elder care belongs to adult sons and their wives (Whyte, 2004; Whyte & Xu, 2003); for example, elderly persons are expected to live with sons, not alone or with daughters (Lin et al., 2003; Sun, 2002; Whyte & Xu, 2003).

Ample evidence indicates that this traditional family model no longer pertains to contemporary Chinese societies. In both mainland China and Taiwan, we have observed many dramatic trends over the past 50 years in demographic and family behaviors, such as a sharp decline in fertility, later ages of marriage, gradual acceptance of premarital sex, and noncoresidence with elderly parents (Chu & Yu, 2009; Hermalin, Ofstedal, & Shih, 2003; Thornton & Lin, 1994; Whyte, 2003; Whyte, Xie, & Zhu, 2009).

With respect to coresidence of married persons with elderly parents, changes from the traditional family model are also notable: elderly parents are now more likely to prefer to live by themselves. Deviation from traditional norms, in both attitude and behavior, has been well

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This article was edited by Jay Teachman.

Key Words: *China, coresidence, family, gender, residential distance, Taiwan.*

documented in Taiwan since the late 1960s (Hermalin & Yang, 2004; Weinstein, Sun, Chang, & Freedman, 1994). This might take either of two possible forms: (a) a married couple and their children living independently as a nuclear family or (b) a family living with the wife's rather than with the husband's parents.

Much of the literature on coresidence is concerned with the first form of deviation (e.g., Knodel & Ofstedal, 2002; Schoeni, 1998; Yan, Chen, & Yang, 2003). As has long been observed in many studies based on Taiwanese data (Freedman, Thornton, & Yang, 1994; Knodel & Ofstedal, 2002; Lee, Parish, & Willis, 1994; Weinstein et al., 1994), coresidence with married daughters—the second form—is uncommon. In studying social change and the Chinese family, however, matrilocal coresidence as a nontraditional family arrangement merits close attention.

In Taiwan, despite a high level of economic development and many dramatic changes, matrilocal coresidence has remained consistently uncommon for 5 decades. The percentage of households in which a married couple lives with the wife's parents was documented to be between 3% and 4% between 1965 and 1986 (Weinstein et al., 1994). Knodel and Ofstedal (2002) found that, in 1989, only 5.9% of elderly lived with married daughters, compared with 57.4% living with married sons. Although Lavelly and Ren (1992) reported a similar, strongly patrilocal coresidence pattern in rural China, this gender asymmetry has been found to be much less pronounced in urban China (Logan & Bian, 1999; Logan, Bian, & Bian, 1998; Pimentel & Liu, 2004; Whyte & Xu, 2003; Xie & Zhu, 2009).

Three theoretical explanations have emerged in the literature to account for whether families in contemporary Chinese societies still practice the traditional coresidence model. The first explanation is the classic modernization hypothesis (Goode, 1963). According to this theory, as a society becomes modernized, its economy changes from being agriculturally based to being industrially based, and obligations to extended families weaken. With modernization, parents not only give their children more freedom but also become less dependent on them in old age. Levy (1949), anticipating the modernization hypothesis, predicted nearly 60 years ago that the pattern of extended Chinese families

would change imminently and fundamentally. Thornton and colleagues (Thornton & Fricke, 1987; Thornton & Lin, 1994) developed a different version of the theory focusing on changes from the familial mode of social organization.

A second explanation is the ideology hypothesis, which traces the origins of the traditional Chinese family to Confucianism, a dominant moral philosophy in China for about 2,000 years. Whyte (2003), for example, identified an important feature of the traditional Chinese family that is distinct from that in premodern Europe: The Chinese central emphasis on *xiao*, or filial piety (also see Thornton & Lin, 1994). Considered an important virtue by Confucius and his disciples, filial piety means absolute love and respect for one's parents and ancestors. As Whyte (2003) pointed out, however, Confucian philosophy has been repudiated in theory, if not totally destroyed in practice, by several radical movements, particularly the large-scale social revolutions of the 20th century: the Xinhai Revolution in 1911 that overthrew the last Chinese dynasty, the Communist Revolution that founded the People's Republic of China in 1949, and the Cultural Revolution of 1966–1976. Meanwhile, after 1949, the nationalist government in Taiwan portrayed itself as the true carrier of the Confucian legacy and Confucian family values. In reality, however, Western cultures that emphasize individualism and materialism have also challenged Confucianism in Taiwan. If Confucianism was the main element giving rise to and sustaining the traditional Chinese family, it is thus possible that the erosions of Confucian ideology have transformed the family. The ideology hypothesis thus predicts that couples with stronger ideology are more obedient to (less deviant from) the traditional patrilocal practice.

A third explanation is the practicality hypothesis: Coresidence may meet the practical needs of either elderly parents or their adult children. This hypothesis is not incompatible with the other two hypotheses, but it emphasizes the importance of practical motives for coresidence and thus the limits of the other two hypotheses in reality. Logan and Bian (1999) articulated this hypothesis most clearly: "The Chinese family is 'modern' in the sense that parents' family decisions represent strategic choices about how to live, not predetermined by a fixed cultural model" (p. 1253). This

hypothesis is merely a revised form of what Chamrathirong, Morgan, and Rindfuss (1988) called "lucrilocality," which refers to a married couple's choice of postnuptial residence according to available resources.

The practicality hypothesis is sensible because the unavailability of physical or familial resources may shape residential decisions about whether to coreside. For example, in a society with low fertility, such as China, some elderly parents have no son and thus have no option to coreside with one. Housing also matters. When housing costs are high, coresidence enables young people to marry who cannot afford independent living. The need for grandparent-provided child care, a common practice in China, may also motivate coresidence with elderly parents. Besides the studies of Bian, Logan, and Bian (1998), Logan and Bian (1999, 2003), and Logan et al. (1998), other studies on urban China by Pimentel and Liu (2004), Zhang (2004), and Xie and Zhu (2009) have also provided empirical evidence in support of the practicality hypothesis.

A true test of the three alternatives using conventional statistical evidence is inherently difficult, if not impossible, because we lack a sufficient number of observations—in other words, different Chinese societies. This article is motivated by the three hypotheses to examine and compare empirical patterns in two contemporary Chinese societies—southeastern coastal China and Taiwan—but we are not in a position to directly test them. Comparing behavior patterns between the two areas has two advantages: (a) Taiwan is geographically close to southeast China, and there is some overlap in ethnic and cultural background between Taiwanese and southeast Chinese; (b) Southeast China is the area most similar to Taiwan in terms of its market economy after 1978. In examining a full range of coresidential patterns, we consider both non-coresidence and coresidence with wife's parents as nontraditional family structures. Along with the categorical variable of coresidence or not, we also use the residential distance between parents and adult children as an alternative outcome variable.

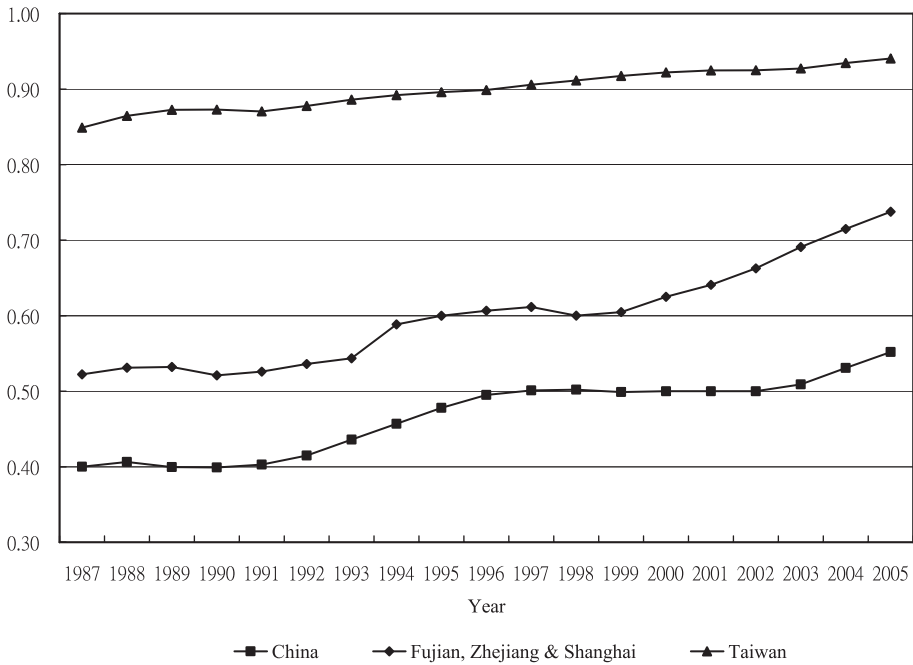
Both mainland China and Taiwan originally followed the same family traditions (Thornton & Lin, 1994; Whyte et al., 2003), but the two differ in terms of modernization, with Taiwan still ahead of China. A commonly used measure

of modernization is proportion of employment in the secondary and tertiary sectors (Belanger & Pinard, 1991). From government sources in both China and Taiwan (Directorate-General of Budget, Accounting, and Statistics, 2009; National Bureau of Statistics of China, 2009), we obtained the proportions employed in the secondary and tertiary sectors in 1987–2005, which we present in Figure 1, which shows that the degree of modernization in Taiwan has continued to exceed that in China in recent years, although the gap in modernization level between Taiwan and the three surveyed regions of mainland China (Zhejiang, Fujian, and Shanghai) is narrower than the gap between Taiwan and China as a whole. According to the modernization hypothesis, we expect a higher rate of coresidence with husband's parents and a lower rate of coresidence with mother's parents in China compared with Taiwan.

We are aware that certain institutional characteristics sharply differentiate mainland China from Taiwan. First, Confucianism was vigorously attacked for decades in China after the Communist Revolution. Second, women's employment is almost universal in China, altering traditional male-centered familial dynamics (see Whyte, 2005). Third, many elderly persons in China lost personal property inherited from earlier generations during the Communist Revolution. Fourth, housing in urban China was provided by work units to mostly public employees until the late 1990s (Xie, Lai, & Wu, 2009). Finally, most urban elderly in China receive state pension support (Xie et al., 2009; Xie & Zhu, 2009), whereas their Taiwanese counterparts do not. For these reasons, it would be simplistic to attribute observed differences between China and Taiwan to different levels of economic development alone. At the minimum, we should control, at the family level, factors that differentiate the two societies in our statistical analysis.

This article reports on an empirical study of how these social determinants affect coresidence patterns with elderly parents—both the husband's and the wife's—in southeastern China and Taiwan. It aims to answer two research questions: (a) Does southeast China differ from Taiwan in terms of coresidence practices? (b) Does southeast China differ from Taiwan in the effects of ideology, economic resources, and practicality factors on coresidence patterns?

FIGURE 1. PROPORTION OF EMPLOYMENT IN SECONDARY AND TERTIARY SECTORS.



Source: China's data are from the National Bureau of Statistics (2009). Taiwan's data are from the Directorate-General of Budget, Accounting, and Statistics (2009).

METHOD

Data

For our study, we use recent data from the Panel Study of Family Dynamics (PSFD), implemented first in Taiwan and then in southeastern coastal China. The panel study, launched in 1999 under the auspices of the Academia Sinica in Taiwan, was intended to examine many aspects of Chinese family life. The PSFD questionnaire contains detailed socioeconomic information about respondents and their spouses, as well as relevant information about their parents and parents-in-law. Information about intergenerational interactions and living arrangements was also collected.

Before we discuss the sample used in the analysis, we provide a brief glimpse of the data structure of the PSFD surveys, first for Taiwan and then for southeast coastal China. In the first Taiwan survey, conducted in 1999, respondents born between 1953 and 1964 (ages 35–46 at the survey time) were randomly drawn by a stratified three-stage sampling procedure. The 131 townships of Taiwan were first stratified

according to their urbanization levels. In each stratum, townships were randomly selected. In the second stage, smaller administrative districts (villages, or equivalent districts in urban area, called *li* in Taiwan) were randomly selected. In the third stage, individuals were randomly drawn from the chosen districts. Applying the same sampling procedure, the research team added randomly selected adults of different cohorts to enlarge the sample size, in the years 2000 and 2003. The number of respondents first interviewed in those years was roughly 1,000 for each decade of cohort. The respondents first interviewed were then followed up in annual face-to-face interviews.

In 2003, the PSFD office established collaboration with the Institute of Population and Labor Economics of the Chinese Academy of Social Sciences to launch a corresponding PSFD survey in mainland China. The research team chose two provinces and one city—Zhejiang, Fujian, and Shanghai—in southeastern coastal China to meet the research goal of comparing China and Taiwan, as Taiwan shared much cultural heritage with these areas. The Wave 1 face-to-face

survey in China was conducted in 2004. To make the data comparable with those collected in Taiwan, the design of the Wave 1 survey in China was similar to that in Taiwan. The questionnaire for the Chinese study is basically the same as that for the Wave 1 survey of Taiwan, with only slight changes adapted to the local context. To adapt to the administrative division of China, a stratified four-stage (county, township, village, and household) sampling procedure was adopted. A Kish (1965) table was used to randomly select an adult respondent from selected households. The numbers of completed questionnaires in 2004 for Shanghai, Zhejiang, and Fujian were 790, 1,708, and 1,808, respectively. More detailed information for the PSFD can be found at <http://psfd.sinica.edu.tw>.

In this study, the Taiwan sample is confined to data collected from the 2003 survey (respondents born in 1964–1976), and the China sample is restricted to the same birth cohort from the 2004 survey. A reason for this is to align the years of survey for Taiwan and China as closely as possible to facilitate a comparative study of the two societies. We selected respondents in the China sample (born in 1964–1976) who would have entered adulthood when China's market reforms began in the late 1970s.

Under such restrictions, the numbers of respondents for Taiwan and China are 1,152 and 1,356, respectively. We further confine our sample to married respondents with at least one living parent and one living parent-in-law. Because the main purpose of the study is to analyze a couple's living arrangements relating to husband's or wife's parents, the few cases of couples coresiding with both sets of parents are deleted (one observation for Taiwan and seven observations for China). After dropping the observations with missing variables (37 for Taiwan and 34 for China), the numbers of observations are 619 and 1,036, respectively, for Taiwan and China.

Statistical Models

We measure coresidence with three distinct states: coresidence with husband's parent(s), coresidence with wife's parent(s), and non-coresidence. We analyze the determinants of the three outcomes with a multinomial probit model (see Greene, 2003). We denote the three outcome variables with binary variables Y_1 ($1 = \text{coresidence with the husband's parents}$),

Y_2 ($1 = \text{coresidence with the wife's parents}$), and Y_3 ($1 = \text{non-coresidence}$). For the i th household, we specify

$$Y_1^* = X\beta_1 + u_1, \quad (1)$$

$$Y_2^* = X\beta_2 + u_2, \quad (2)$$

$$Y_3^* = X\beta_3 + u_3. \quad (3)$$

Here Y_1^* , Y_2^* , and Y_3^* denote the respective latent values for Y_1 , Y_2 , and Y_3 ; X is a vector of regressors in the equations. The residual terms are u_1 , u_2 , and u_3 . The outcome corresponds to whichever value function is greatest:

$$Y = j \text{ if } Y_j^* = \max(Y_1^*, Y_2^*, Y_3^*),$$

where Y denotes coresidence outcome, coded as 1 if coresident with husband's parents, 2 if coresident with wife's parents, and 3 if non-coresident. Suppose u_1 and u_2 are bivariate normally distributed with zero means, unit variances, and correlation coefficient ρ_u . To identify the unknown parameters, we choose non-coresidence as a reference, and set the corresponding β_3 and u_3 to 0.

In the multinomial probit model, our main interest lies in the coefficient vectors (β_1 and β_2). An attractive feature of the multinomial probit model is that it allows for correlation of the residential options. In earlier phases of the study, we also used alternative specifications of a multinomial logit model and a sequential binary logit model and obtained qualitatively the same results.

Besides discrete coresidence status, living arrangements have other facets to be explored. As Knodel and Ofstedal (2002) and Ofstedal, Knodel, and Chayovan (1999) noted, an adult child may live adjacent to his or her parent and have daily contact, which can be regarded as a looser form of coresidence. To take these spatial aspects into account, we construct measures for residential distance between the couple and the husband's and/or wife's parents. Residential distance is an ordered categorical variable containing six options: 6 = *coresidence*, 5 = *traveling time less than 10 minutes*, 4 = *10–30 minutes*, 3 = *30–60 minutes*, 2 = *1–2 hours*, and 1 = *more than 2 hours*. The greater the value, the shorter is the residential distance between the couple and the husband's and/or wife's parents.

We thus call this outcome variable residential proximity.

We analyze the residential proximity between a couple and the husband's and/or wife's parents using a bivariate ordered probit model. Suppose D_1^* and D_2^* are latent variables associated with the values for residential distance from the husband's and wife's parents, respectively. Similar to Equations 1–3, we specify

$$D_1^* = X\gamma_1 + \varepsilon_1, \quad (4)$$

$$D_2^* = X\gamma_2 + \varepsilon_2, \quad (5)$$

where X is the same as the regressors used in the multinomial probit model. The residual terms are ε_1 and ε_2 . We assume that the continuous, latent distance measures D_1^* and D_2^* are observed in six ordinal categories through a threshold measurement model (see Greene, 2003). To identify the model, we dropped the constant terms from Equations 4 and 5. Also, we assume that ε_1 and ε_2 are bivariate normally distributed with zero means, unit variances, and correlation coefficient ρ_ε . We use the maximum likelihood method to estimate both the multinomial probit model for coresidence status and the bivariate ordered probit model for residential proximity.

Explanatory and Control Variables

We consider the following groups of individual-level and family-level explanatory and control variables that should affect coresidence patterns in the two Chinese societies.

Ideology. Motivated by the ideology hypothesis, we use an attitude measure of filial piety, a set of questions on the survey questionnaire. The 9-item Filial Piety Scale (FPS) given in the Appendix is a short version retrieved from the original 52-item FPS (Yang, Yeh, & Hwang, 1989), with each item scaled from 1 (*not important*) to 5 (*absolutely important*). The short-version FPS has been used widely in studies of filial piety in Chinese society (see Yeh & Bedford, 2003, 2004). Following Yeh and Bedford (2003, 2004), we use the sum of answers to the 9 items to measure filial piety. The items were asked of respondents only, but as long as positive assortative mating on the spouses' filial attitude is used, the measure is a reasonable proxy for the couple's overall filial piety. Even though filial piety is intended as an

overall measure of Confucian ideology, 2 of the 9 items pertain specifically to the patrilineal and patrilocal family structure.

Economic resources. We include measures of economic resources in our study to capture two ideas. First, a couple may mobilize its total economic resources to deviate from the traditional familial norm of coresidence (Lee et al., 1994). We use husband's education, couple's total income, and employment sector to measure the couple's socioeconomic status. The husband's educational attainment is measured by years of schooling, regardless of the type of school system. The possible values of the years of schooling are: 0 = *not educated*, 3 = *self-educated*, 6 = *elementary school*, 9 = *junior high school*, 12 = *senior high school*, 14 = *2-year college*, 15 = *3-year college*, 16 = *university*, 18 = *master's degree*, and 20 = *doctoral degree*. Because the husband's and wife's education was found to be highly correlated in both Chinese and Taiwanese societies (Chu & Yu, 2009), we excluded the wife's education from the covariates to avoid multicollinearity. The couple's total income is the sum of the husband's and wife's monthly wages, the unit being thousand local currencies (TWD in Taiwan and RMB in China). Concerning employment, it is often observed in both Taiwan and China that those who are employed in government or public enterprises possess much better fringe benefits (e.g., housing, health insurance, retirement benefits, tuition reimbursement) than workers for other types of employers (see Hu, Chen, & Chen, 2000; Sheng & Settles, 2006; Wang, 2006). The couple's employment-sector dummy is coded as 1 if either the husband or the wife worked for government or public enterprise at the time of survey, and 0 otherwise.

Second, we are interested in marital power differentials between husband and wife, assessed by examining their relative economic resources, under the assumption that the wife's economic resources might help her break out of the traditional housework role (Lundberg & Pollack, 1996). Thus, we measure relative resources of husband and wife by their educational and income differences.

Practicality. We capture the implications of the practicality hypothesis with several variables measuring practical factors that affect coresidence. For example, when an adult child has

multiple siblings (especially brothers), the likelihood of residing with parents is reduced. Given the expected central role of sons in caring for the elderly in a patrilineal and patriarchal society, we use the husband's and/or wife's number of older and younger brothers in the models instead of simply total sibship size. A widowed parent is more likely to coreside, because it is harder to maintain an independent household without a spouse. Finally, having a young grandchild increases coresidence likelihood because elderly grandparents often play child-caring roles in Chinese families. We include measures of whether the couple has any children age 3 or younger.

Other variables. Because no direct measures of parents' current or lifetime incomes exist, we used three variables as proxy measures for parental resources: father's occupation (1 = *managerial or professional*; 0 = *otherwise*), father's education (1 = *junior high school or above*; 0 = *otherwise*), and parents' employment sector (1 = *government or public*; 0 = *otherwise*). The variables are defined symmetrically for husband's and wife's parents. The urbanization dummy is defined by the couple's residential area: It is coded 1 if the couple resided in a metropolitan area at the survey time, and 0 otherwise. We also include a dummy variable indicating migration. For the China sample, the dummy is set to 1 if the husband's and/or wife's province of birth is different from that of his or her parents, and 0 otherwise. In the case of Taiwan, the migration dummy is constructed using subjective questions on the father's ethnicity (1 = *Mainlander*; 0 = *Fukienese, Hakka, or Aborigine*).

In our study, we treat, for simplicity, individual-level covariates as given (rather than endogenous) to coresidence outcomes. We first estimate our statistical models separately for the southeastern China sample and the Taiwan sample, then compare how the coefficient estimates may differ across the two samples.

RESULTS

Descriptive Results

Table 1 summarizes the means and standard deviations of all variables. As discussed in earlier sections, Taiwan was more developed than the three regions of China during the study period. The descriptive results in Table 1 contradict

our expectation based on modernization theory for a higher rate of coresidence with husband's parents and a lower rate of coresidence with mother's parents in China than in Taiwan. The bottom row of Table 1 shows that the proportion of the married couples who coresided with the husband's parent(s) was much higher in Taiwan (44.10%) than in China (33.20%). Moreover, the proportion of couples who coresided with the wife's parent(s) in Taiwan was less than half that in China (2.40% vs. 4.83%). The proportion of the couples who did not coreside with any parent was lower in Taiwan (53.50%; 61.97% in China). These descriptive results suggest that Taiwan might be more traditional than China in terms of intergenerational living arrangements, as is consistent with the findings of Cornman, Chen, and Hermalin (2003) and Hermalin, Ofstedal, and Shih (2003). We discuss the influences of various variables in greater depth below.

Coresidence: Multinomial Probit Model Results

In Table 2, we present the estimated coefficients of the multinomial probit model predicting coresidence outcomes in Taiwan and China. The first row shows differences in filial piety coefficients between Taiwan and China (Column 2-[1] and Column 2-[3]). In Taiwan, couples with stronger filial attitudes were more likely to coreside with the husband's parents (significant at 1%), but the coefficient estimate was statistically insignificant from 0 in China. Filial piety did not influence coresidence with the wife's parents (Column 2-[2] and Column 2-[4]): Neither Taiwan nor China revealed a significant finding. Thus, in Taiwan, the strength of filial attitude was positively associated with the relative likelihood of patrilocal coresidence but not matrilineal coresidence. In contrast, the choice among different types of living arrangements in China did not vary in terms of this ideology measure.

With respect to the socioeconomic variables, one striking cross-society difference is that, although family socioeconomic variables have some predictive power in Taiwan, they have none in China. In Taiwan, we found that a couple's total income significantly reduced its likelihood of coresidence with the husband's parents (Column 2-[1])—consistent with the interpretation that economic resources enable children to “buy out” their obligation of

Table 1. Means and Standard Deviations for the Taiwan and China Sample, by Coresidence Status

	Taiwan			China		
	Coresiding With Husband's Parent(s)	Coresiding With Wife's Parent(s)	Not Coresiding With Any Parent	Coresiding With Husband's Parent(s)	Coresiding With Wife's Parent(s)	Not Coresiding With Any Parent
Coresidence with husband's parent(s) (1 = yes)	1.000 (0.000)	0.000 (0.000)	0.000 (0.000)	1.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Coresidence with wife's parent(s) (1 = yes)	0.000 (0.000)	1.000 (0.000)	0.000 (0.000)	0.000 (0.000)	1.000 (0.000)	0.000 (0.000)
Distance with husband's parent(s) (1-6, 6 = coresidence; 1 = travel time > 2 hr)	6.000 (0.000)	2.333 (1.291)	2.967 (1.492)	6.000 (0.000)	3.580 (1.430)	4.101 (1.380)
Distance with wife's parent (s) (1-6, 6 = coresidence; 1 = travel time > 2 hr)	2.853 (1.351)	6.000 (0.000)	2.988 (1.339)	3.459 (1.387)	6.000 (0.000)	3.447 (1.395)
Husband's/wife's filial attitude (sum of answers to nine items)	36.275 (5.177)	34.067 (6.029)	34.731 (4.759)	33.916 (5.610)	32.700 (5.497)	33.226 (5.380)
Husband's education (in years)	12.410 (2.244)	12.800 (4.379)	13.000 (2.829)	8.797 (2.777)	9.980 (3.883)	9.380 (3.349)
Husband's & wife's total income (in thousand local currencies)	58.592 (38.471)	65.667 (33.498)	71.479 (44.032)	2.006 (3.696)	2.928 (3.368)	2.074 (2.591)
Difference in education (in years)	0.216 (2.185)	-1.133 (4.121)	0.393 (2.306)	1.230 (3.092)	0.480 (3.092)	1.056 (3.130)
Difference in income (in thousand local currencies)	24.773 (34.584)	11.667 (18.642)	26.147 (41.874)	0.974 (3.583)	1.603 (3.646)	0.811 (2.395)
Husband/wife working for government/public enterprise (1 = yes)	0.132 (0.339)	0.400 (0.507)	0.211 (0.409)	0.209 (0.407)	0.380 (0.490)	0.307 (0.462)
Any child of age ≤ 3 (1 = yes)	0.421 (0.495)	0.333 (0.488)	0.314 (0.465)	0.177 (0.383)	0.160 (0.370)	0.139 (0.346)
Living in urban area (1 = yes)	0.300 (0.459)	0.533 (0.516)	0.508 (0.501)	0.186 (0.390)	0.320 (0.471)	0.357 (0.479)
Husband's parent (s) being migrant (1 = yes)	0.110 (0.313)	0.133 (0.352)	0.121 (0.326)	0.061 (0.240)	0.140 (0.351)	0.067 (0.250)
Wife's parent (s) being migrant (1 = yes)	0.081 (0.273)	0.067 (0.258)	0.127 (0.333)	0.113 (0.318)	0.200 (0.404)	0.114 (0.318)
Husband with one parent alive only (1 = yes)	0.319 (0.467)	0.267 (0.458)	0.221 (0.415)	0.358 (0.480)	0.240 (0.431)	0.260 (0.439)
Husband's father/mother worked for government/public enterprise (1 = yes)	0.183 (0.387)	0.333 (0.488)	0.242 (0.429)	0.433 (0.496)	0.420 (0.499)	0.486 (0.500)
Husband's father being professional/manager (1 = yes)	0.081 (0.273)	0.133 (0.352)	0.130 (0.337)	0.070 (0.255)	0.120 (0.328)	0.075 (0.263)
Husband father's education being junior high or above (1 = yes)	0.150 (0.358)	0.200 (0.414)	0.218 (0.413)	0.070 (0.255)	0.180 (0.388)	0.103 (0.304)
Husband's number of elder brothers	0.810 (1.088)	0.867 (0.915)	0.973 (1.077)	0.831 (1.069)	1.020 (1.040)	0.846 (1.001)
Husband's number of younger brothers	0.527 (0.718)	0.467 (0.743)	0.622 (0.801)	0.390 (0.629)	0.540 (0.762)	0.640 (0.760)

Table 1. *Continued*

	Taiwan			China		
	Coresiding With Husband's Parent(s)	Coresiding With Wife's Parent(s)	Not Coresiding With Any Parent	Coresiding With Husband's Parent(s)	Coresiding With Wife's Parent(s)	Not Coresiding With Any Parent
Wife with one parent alive only (1 = yes)	0.234 (0.424)	0.133 (0.352)	0.251 (0.434)	0.270 (0.445)	0.360 (0.485)	0.273 (0.446)
Wife's father/mother worked for government/public enterprise (1 = yes)	0.114 (0.318)	0.400 (0.507)	0.184 (0.388)	0.375 (0.485)	0.400 (0.495)	0.435 (0.496)
Wife's father being professional/ manager (1 = yes)	0.059 (0.235)	0.200 (0.414)	0.085 (0.279)	0.052 (0.223)	0.140 (0.351)	0.092 (0.289)
Wife father's education being junior high or above (1 = yes)	0.147 (0.354)	0.467 (0.516)	0.175 (0.381)	0.076 (0.265)	0.140 (0.351)	0.115 (0.320)
Wife's number of elder brothers	0.810 (0.989)	0.333 (0.617)	0.761 (0.947)	0.811 (1.031)	0.560 (0.837)	0.812 (1.093)
Wife's number of younger brothers	0.802 (0.834)	0.800 (0.775)	0.852 (0.786)	0.703 (0.778)	0.220 (0.465)	0.674 (0.850)
<i>N</i>	273	15	331	344	50	642
Proportion of observations	44.10%	2.40%	53.50%	33.20%	4.83%	61.97%

Note: Standard deviations are in parentheses.

coresidence, but in China, we did not find this. We observed that, for both Taiwan and China, the difference in education between spouses (to the husband's advantage) reduced a couple's likelihood of coresidence with the wife's parents (Columns 2-[2] and 2-[4])—a sign of relative power resources at work. We also note that the wife's parents being employed in government or public enterprises reduced the likelihood of coresidence with the husband's parents in Taiwan (Column 2-[1]). If the husband's father had higher education (junior high or above), the likelihood of coresidence with the wife's parents (vs. non-coresidence) was higher in China (Column 2-[4]), but the effect was insignificant in Taiwan (Column 2-[2]).

For some practicality covariates, the results are similar across the two societies (Columns 2-[1] and 2-[2] vs. Columns 2-[3] and 2-[4]). For example, we observe that having any children age 3 or younger and only one of the husband's parents still living were strongly and positively associated with coresidence with the husband's parents; husband's number of elder brothers and number of younger brothers were negatively associated with coresidence of the husband's parents, shown in Columns 2-[1] and 2-[3]). These findings are consistent with the

practicality interpretation. First, grandparents are able to care for a young child while coresiding. Second, coresidence may facilitate care for a widowed parent. Third, coresidence with parents is less in demand when older or younger brothers are available. It is surprising, however, that the coefficients of the same variables were insignificant for predicting coresidence with wife's parents, as shown in Columns 2-[2] and 2-[4]. One possible reason for the insignificant results is the lack of statistical power—we have only a few cases in which a couple coresided with the wife's parents. For some covariates that are intended to represent practical needs or utilities of coresidence, the results differ between the two societal contexts. The coefficients corresponding to the wife's number of brothers (older or younger) were significantly negative for the relative likelihood of coresidence with the wife's parents in China (Column 2-[4]), but not in Taiwan (Column 2-[2]).

As for the other covariates, only the urbanization dummy showed significance in some equations. Except for the equation of coresidence with wife's parents in Taiwan (Column 2-[2]), the urbanization variable was negatively associated with coresidence. It has

Table 2. *Estimated Coefficients in Multinomial Probit Models for Coresidence*

	Taiwan		China	
	Coresiding With Husband's Parent(s) 2-[1]	Coresiding With Wife's Parent(s) 2-[2]	Coresiding With Husband's Parent(s) 2-[3]	Coresiding With Wife's Parent(s) 2-[4]
Husband's/wife's filial attitude	0.048*** (0.015)	-0.000 (0.034)	0.014 (0.011)	-0.003 (0.019)
Husband's education	-0.000 (0.042)	0.104 (0.103)	-0.017 (0.027)	0.059 (0.047)
Husband's & wife's total income	-0.006** (0.002)	-0.010 (0.006)	-0.020 (0.035)	-0.010 (0.061)
Difference in education	-0.005 (0.041)	-0.189* (0.111)	0.015 (0.022)	-0.071* (0.043)
Difference in income	0.002 (0.002)	-0.007 (0.007)	0.038 (0.036)	0.065 (0.062)
Husband/wife working for government/public enterprise	-0.317 (0.219)	0.284 (0.414)	-0.096 (0.163)	0.047 (0.262)
Any child of age ≤ 3	0.367** (0.161)	-0.121 (0.370)	0.337** (0.168)	-0.033 (0.280)
Living in urban area	-0.742*** (0.165)	-0.007 (0.359)	-0.699*** (0.161)	-0.569** (0.265)
Husband's parent (s) being migrant	0.325 (0.266)	-0.272 (0.624)	0.152 (0.280)	0.352 (0.383)
Wife's parent (s) being migrant	-0.224 (0.284)	-0.878 (0.692)	0.105 (0.207)	0.247 (0.308)
Husband with one parent alive only	0.476*** (0.175)	0.189 (0.385)	0.431*** (0.133)	0.047 (0.234)
Husband's father/mother worked for government/public enterprise	-0.099 (0.220)	0.287 (0.441)	-0.085 (0.172)	-0.269 (0.284)
Husband's father being professional/manager	-0.085 (0.278)	-0.125 (0.598)	0.423 (0.268)	0.279 (0.397)
Husband father's education being junior high or above	-0.185 (0.238)	-0.324 (0.514)	-0.228 (0.251)	0.655* (0.349)
Husband's number of elder brothers	-0.225*** (0.076)	-0.056 (0.181)	-0.133** (0.062)	0.130 (0.097)
Husband's number of younger brothers	-0.218** (0.106)	-0.052 (0.245)	-0.517*** (0.090)	-0.014 (0.137)
Wife with one parent alive only	-0.119 (0.183)	-0.266 (0.474)	0.052 (0.138)	0.357 (0.222)
Wife's father/mother worked for government/public enterprise	-0.411* (0.247)	0.389 (0.444)	0.050 (0.175)	-0.341 (0.294)
Wife's father being professional/manager	-0.178 (0.308)	0.548 (0.492)	-0.134 (0.271)	0.240 (0.392)
Wife father's education being junior high or above	0.296 (0.236)	0.474 (0.441)	-0.117 (0.235)	-0.289 (0.368)
Wife's number of elder brothers	0.010 (0.087)	-0.406 (0.282)	0.013 (0.058)	-0.378*** (0.120)

Table 2. Continued

	Taiwan		China	
	Coresiding With Husband's Parent(s) 2-[1]	Coresiding With Wife's Parent(s) 2-[2]	Coresiding With Husband's Parent(s) 2-[3]	Coresiding With Wife's Parent(s) 2-[4]
Wife's number of younger brothers	−0.137 (0.103)	−0.304 (0.238)	0.034 (0.073)	−0.894*** (0.196)
Constant	−0.911 (0.747)	−2.346 (1.755)	−0.500 (0.443)	−1.588** (0.760)
N	619		1,036	
χ ²	97.984		130.178	
Log-likelihood	−429.140		−761.917	

Note: Standard errors are in parentheses.

* $p < .1$. ** $p < .05$. *** $p < .01$.

been widely known that China is deeply divided between its urban and rural sectors (Li, Feldman, & Jin, 2004; Silverstein, Cong, & Li, 2006; Wu & Treiman, 2004; Xie & Zhu, 2009; Zimmer & Kwong, 2003). This finding is consistent with the modernization hypothesis, as an urban area is usually more advanced than a rural area. It can also be interpreted in terms of practical considerations. First, urban living in China is restricted and limited, by highly regulated household registration (Wu & Treiman, 2004) and an old practice of limiting housing provisions to employees in work units (Bian, Logan, Lu, & Wang, 1997; Xie et al., 2009). Second, urban residents are more likely than rural residents to acquire housing (e.g., through assignments by work units before the housing reform, or by purchasing through the market after the housing reform) than to inherit housing from their parents. As is generally true, inheriting housing in agricultural settings often involves coresidence with parents (Ruggles & Heggeness, 2008).

Residential Proximity: Bivariate Ordered Probit Model Results

In Table 3, we present the results for the residential distance equations obtained from bivariate ordered probit estimation. For ease of comparison with Table 2, the residential distance variable is coded by closeness of residence (1 = *traveling time more than 2 hours*; 6 = *coresidence*). Given this coding of the outcome variable, a positive coefficient means an independent variable has a positive influence

on residential proximity—a shorter residential distance to parents.

It can be seen from Table 3 that, much like in Table 2, the effects of the filial piety variable were different across the two societies. In Taiwan, the coefficient of filial attitude was positively significant (at 1%) in the equation of proximity with husband's parents and negatively significant (at 5%) in the equation of the wife's side. The estimated coefficient of filial attitude, however, was statistically insignificant in both equations in China. The findings for Taiwan indicate that couples with stronger filial attitudes tend to stick to more traditional living arrangements, living closer to the husband's parents and further from the wife's parents. But in China, measure of filial piety was not a relevant factor for the spouses' residential distance from either set of parents.

In Taiwan, the couple's total income was associated with residential distance from the husband's parents. This suggests that socioeconomic resources play a positive role in overcoming traditional norms. Relative resources also mattered. When the husband possessed more relative resources (income and education in Taiwan and education in China), residential distance to the wife's parents was likely to be greater. In China, husband's education was also associated with living further from the husband's as well as closer to the wife's parents.

Concerning parental resources, we observe in Taiwan that if the husband's father is highly educated (junior high or above), or if either of the wife's parents worked for a government or public enterprise, the residential distance from

Table 3. *Estimated Coefficients in Bivariate Ordered Probit Models for Residential Proximity*

	Taiwan		China	
	Distance With Husband's Parent(s) 3-[1]	Distance With Wife's Parent(s) 3-[2]	Distance With Husband's Parent(s) 3-[3]	Distance With Wife's Parent(s) 3-[4]
Husband's/wife's filial attitude	0.025*** (0.009)	-0.018** (0.009)	0.009 (0.006)	-0.002 (0.006)
Husband's education	0.002 (0.025)	0.016 (0.024)	-0.041*** (0.016)	0.047*** (0.015)
Husband's & wife's total income	-0.003** (0.001)	0.001 (0.001)	-0.021 (0.018)	-0.007 (0.017)
Difference in education	0.007 (0.025)	-0.043* (0.024)	0.019 (0.013)	-0.033*** (0.012)
Difference in income	0.000 (0.001)	-0.003** (0.001)	0.017 (0.018)	0.013 (0.018)
Husband/wife working for government/public enterprise	-0.185 (0.127)	0.121 (0.123)	-0.095 (0.093)	-0.146 (0.091)
Any child of age ≤ 3	0.217** (0.098)	0.002 (0.093)	0.120 (0.099)	-0.319*** (0.096)
Living in urban area	-0.383*** (0.097)	-0.111 (0.094)	-0.714*** (0.091)	-0.544*** (0.089)
Husband's parent (s) being migrant	0.229 (0.158)	-0.004 (0.154)	-0.408** (0.159)	0.311** (0.158)
Wife's parent (s) being migrant	-0.207 (0.161)	-0.137 (0.155)	0.068 (0.120)	-1.110*** (0.126)
Husband with one parent alive only	0.215** (0.108)	0.029 (0.101)	0.245*** (0.078)	-0.198*** (0.075)
Husband's father/mother worked for government/public enterprise	-0.016 (0.130)	0.056 (0.127)	0.042 (0.098)	-0.136 (0.095)
Husband's father being professional/ manager	0.095 (0.161)	0.003 (0.157)	0.197 (0.148)	0.104 (0.144)
Husband father's education being junior high or above	-0.278* (0.142)	-0.255* (0.137)	-0.168 (0.134)	0.020 (0.132)
Husband's number of elder brothers	-0.122*** (0.045)	0.016 (0.044)	-0.082** (0.036)	0.051 (0.034)
Husband's number of younger brothers	-0.069 (0.062)	0.068 (0.060)	-0.256*** (0.050)	-0.009 (0.048)
Wife with one parent alive only	-0.035 (0.110)	0.067 (0.105)	0.018 (0.080)	0.119 (0.076)
Wife's father/mother worked for government/public enterprise	-0.256* (0.141)	-0.019 (0.137)	0.060 (0.100)	0.146 (0.097)
Wife's father being professional/manager	-0.091 (0.181)	-0.052 (0.176)	-0.196 (0.147)	0.043 (0.143)
Wife father's education being junior high or above	0.130 (0.139)	0.015 (0.133)	-0.007 (0.130)	0.061 (0.127)
Wife's number of elder brothers	-0.003 (0.053)	-0.008 (0.051)	0.038 (0.034)	-0.053 (0.033)

Table 3. *Continued*

	Taiwan		China	
	Distance With Husband's Parent(s) 3-[1]	Distance With Wife's Parent(s) 3-[2]	Distance With Husband's Parent(s) 3-[3]	Distance With Wife's Parent(s) 3-[4]
Wife's number of younger brothers	-0.097 (0.063)	0.011 (0.060)	0.037 (0.044)	-0.059 (0.042)
$\hat{\rho}_e$	-0.034 (0.048)		-0.025 (0.036)	
<i>N</i>	619		1,036	
χ^2	71.490		212.521	
Log-likelihood	-1,825.585		-2,981.419	

Note: Standard errors are in parentheses.

* $p < .1$. ** $p < .05$. *** $p < .01$.

husband's parents tends to be greater (Column 3-[1]). Also, higher educational level of the husband's father was associated with greater residential distance from the wife's parents in Taiwan. None of these parental resources variables, however, was significant in China. These results indicate that parental resources were important determinants of residential distance in Taiwan, but not in China.

Some practicality variables exhibit similar patterns across societies. As Columns 3-[1] and 3-[3] show, only one of the husband's parents being alive or having fewer older brothers on the husband's side was associated with greater proximity to the husband's parents. But we also observe differences: The presence of young children was associated with greater proximity to the husband's parents in Taiwan but, surprisingly, with greater distance from the wife's parents in China. For China, having only one of the husband's parents alive was associated with greater distance from the wife's parents, and the husband's having more younger brothers was associated with a greater residential distance from the husband's parents.

The urbanization dummy (Columns 3-[1] to 3-[4]) exhibits similar effects, as shown in Table 2 (Columns 2-[1] to 2-[4]). For most equations in Table 3 (except distance to wife's parents in Taiwan), the coefficients of the urbanization dummy were negatively significant, which indicates greater distance to parents' residence for an urban couple. The coefficient of the migrant dummy was significant for the China sample in Table 3. As expected,

if either of the husband's parents migrated from other provinces, the residential distance from husband's parents tends to be greater and that from wife's parents less. A similar (i.e., symmetrical) result holds for the wife's parents.

Taiwan and China Comparison

The above discussion compared the results between Taiwan and China without reference to the statistical significance of the differences. Are our substantive findings about the difference in ideology measure between Taiwan and China statistically significant? To answer this question, we tested for the significance of the contextual differences in the coefficients corresponding to the ideology measures in the equations we earlier presented in Tables 2 and 3 (using the formula of Greene, 2003). Almost all the results pertaining to the Taiwan–China differences in the estimated effects of the ideology measure pass the conventional significance level of 5%, except the equations corresponding to coresidence with wife's parents. That is, sufficient statistical evidence supports our earlier observation that the ideology of filial piety plays different roles in Taiwan and in China. Statistical tests for other regression coefficients yield mixed results, some being statistically significant between the two samples at the 5% conventional level, and others insignificant. Most notably, the estimated coefficient of the total income on coresidence with the husband's parents was significantly different, being statistically negative only for Taiwan.

DISCUSSION

The Chinese family has long been known for its strong emphasis on filial piety, a major manifestation of which is the expectation that grown children should respect and care for their elderly parents, especially along the male line (Whyte, 2004; Whyte & Xu, 2003). As a social institution, however, the Chinese family is not static. Indeed, there are many good reasons to expect it to change under the influences of broader economic, social, demographic, and cultural transformations. In this article, we analyzed data from two recent household surveys designed for comparative studies between China and Taiwan. Our analyses were centered on socioeconomic determinants that predict not only whether an adult couple lives with elderly parents but also, if they do, whether they live with the husband's or the wife's parents.

Several tentative findings emerged from the study. First, contradicting an expectation derived from modernization theory, the traditional form of coresidence with the husband's parents is more prevalent in Taiwan than in China, and the nontraditional form of coresidence with the wife's parents is more prevalent in China than in Taiwan. Second, there is partial support for modernization theory at the family level: parental socioeconomic resources facilitate breaking away from the traditional norm of coresidence with the husband's parents in both societies, but a couple's own economic resources matter only in Taiwan and not in China. Third, there is partial support for the ideology hypothesis, as we found traditional ideology important in Taiwan, but not in China. Fourth, in both China and Taiwan, there is strong support for the practicality explanation, as we found strong effects of practical factors in determining coresidence patterns. From these findings, we infer that many families in China choose to coreside with the wife's parents mainly out of practical considerations (e.g., availability of living space), as practical, rather than socioeconomic, factors affect their coresidence patterns.

Concerning the Taiwan–China cross-society comparison, we find that China is, overall, less traditional than Taiwan. This is true in terms of both the overall distribution of coresidence patterns and the extent to which a couple's socioeconomic resources facilitate deviations from the traditional pattern of patrilocal coresidence. Thus, we are led to a

paradoxical conclusion: At the societal level, a higher level of economic development does not necessarily mean a less traditional familial culture, but personal economic resources seem to enable individual couples to deviate from traditional familial practices.

What accounts for more traditional practices in Taiwan than in China, despite Taiwan's higher level of economic development? Although we are not able to answer this question affirmatively with empirical information, we offer a speculation. We believe that the Communist Revolution and the Cultural Revolution have significantly eroded the Confucian ideology underlying the traditional Chinese family in mainland China. Coresidence with the husband's parents is less likely to be seen as a necessary obligation in China than it is in Taiwan. Besides ideological influences, which are more important in Taiwan than in China, practical concerns, such as sibling availability, need to help elderly, and need for child care, occupy prominent roles in determining coresidence patterns in both societies. Future research should explore this topic further.

NOTE

The research is supported by a Fogarty grant for international research from the National Institute of Child Health and Development (D43 TW000657). We thank Cindy Glovinsky, Emily Greenman, and Martin Whyte for their comments and suggestions on earlier drafts of this article. Readers who are interested in the Panel Study of Family Dynamics (PSFD) can contact C. Y. Cyrus Chu or Ruohong Yu.

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APPENDIX

The nine-item question on filial piety is listed below. For each item, respondents were asked to evaluate the degree of importance of the stated value or norm to themselves (on a scale from 1 to 5, where 1 = *not important* and 5 = *absolutely important*).

1. One should be grateful to parents for their upbringing.
2. One should be kind and nice to parents regardless how badly he/she has been treated by them.
3. One should give up his/her own plans for the future in order to comply with parents' wishes and expectations.
4. Married sons should live with their parents.
5. One is responsible for making parents' life more comfortable.
6. One should compliment his/her parents when it is needed to save their face.
7. One should have at least one son for the succession of the family name.
8. One should do something to glorify the family.
9. Married daughters should go home from time to time to visit their parents.