Parent-Child Dynamics and Family Solidarity: A Comparative Study of East Asian Societies

Juhua Yang

Professor
Center for Population and Development Studies
Renmin University of China
Beijing 100872, China

Juhua_Yang@yahoo.com

Family solidarity refers to adult child-parent relations and can be examined from structural, social-psychological, and transactional perspectives. In East Asia, the family organization has undergone substantial change along with socioeconomic and demographic transitions in the past decades, and consequently family solidarity may have been affected. Using the 2006 East Asian Social Survey, we compare patterns of adult child-parent relations among Mainland China, Japan, Korea and Taiwan. Analytical results suggest that far from eroding, the family organization in East Asia remains strong in co-residence, emotional exchanges, and financial support between child- and parental generations, despite the differences in relative strengths in these dimensions of family solidarity across the four societies. Overall, families in Korea seem to maintain the strongest cohesion, followed by those in Taiwan and Mainland China, and Japanese families are the least cohesive. These results suggest a cultural force that holds the family a solidified system during rising modernization in economy and society.

[Keyword] Intergenerational dynamics; Family solidarity; Reciprocity; Intergenerational support

Introduction

The East Asian countries or regions have historically been characterized by strong family solidarity where at least one child (particularly the son) is expected to co-reside with and take care of parents (Unger 1993; Whyte and Parish 1984; Won and Lee 1999). Intergenerational relationship is of mutual reciprocity; the elderly were the center of the family; the ethics of "filial piety," "the elderly are respected, and the youngsters are loved" were emphasized. Family function is to care for the youth and support for the elderly. In the past half century, however, the East Asian society has experienced tremendous political, socioeconomic and demographic transformation. Demographic shifts, together with industrialization and urbanization of the society and the reformulation of public policy on the family, have shrunk family size, reshaped family composition, changed family contexts and intergenerational dynamics. In China, for example, approximately one-fourth of the family has only one child, and about one-fourth of the family has no sons in 2000. The total fertility rate in Japan, Korea, and Taiwan (United Nations 2009) is even lower, suggesting that many families have only one child or sonless. These changes would have profound implications for family solidarity.

The modernization theory has predicted that as a society modernizes, the extended kinship ties would have weakened, traditional linkages dissolved, and nuclear family become a more independent kinship unit (Goode 1963). Drawing on data from the 2006 East Asian Social Survey (EASS), this paper attempts to explore whether family changes in the East Asian societies -- Mainland China, Japan, Korea

and Taiwan -- have followed this path in the process of modernization, and whether modernization has proportionately eroded family solidarity. By comparing the current status, patterns and associates of three aspects of family solidarity (i.e., residential, affective and supportive solidarity) among families in these four regimes, it addresses the following three specific issues:

First, has family solidarity among generations correspondingly eroded by modernization and changes in the family regime or is it resilient to changes at the macro and household levels? Although we cannot directly test the relationship between modernization and family solidarity, the EASS survey data provide a possibility of doing so, since Japan, Korea, Taiwan and China can be treated as a sequence of modernization. Japan is the most modernized, followed by Korea and Taiwan, and Mainland China lest modernized among the four societies. Based on the modernization theory, it would be reasonable to argue that family solidarity is lest maintained in Japan and mostly maintained in China.

Second, do the four East Asian regimes differ in family solidarity? On the one hand, given the variations in the onset, pace and stage of family change, in social support system, and in levels of urbanization across countries or regions in this area, it is possible that the patterns and associates of intergenerational solidarity vary by different political regimes. On the other hand, however, it is also possible that family solidarity in this area demonstrate similar characteristics since the East Asian societies share similar pattern and trajectory of demographic transition, and similar cultural background (i.e., Confucianism) that emphasizes intergenerational reciprocity.

Third, if the four societies differ from each other in family solidarity, how and in which aspect(s) of family solidarity do they differ? Family solidarity refers to adult child-parent relations and can be examined from structural, social-psychological, and transactional perspectives. This paper analyzes each of them independently, and also pays attention to the potential interactions among the three aspects. Such approach would allow us to assess the relationship between family solidarity and modernization in great detail, and will show which aspect of family solidarity is most resilient (or conducive) to change and in which country. Studies have found that urbanization and family change reshape parent-child co-residential pattern, and enlarges their geographic distance, while improves the convenience of communication between parents and children who do not co-reside, and make intergenerational reciprocity more important (Wang 2006; Milagros et al. 1995; Morgan and Hirosima 1983; Pimentel and Liu 2004; Thornton and Fricke 1987)

By doing so, this paper contributes to the current literature in three ways. First, it focuses on East Asia, a region most dynamic economically and socially in the world, which suggests that it might be the best setting to explore the issue of family solidarity in a transitional era. If macro changes in population and socioeconomic structure would bear a relationship to the family, it would be pronouncedly reflected in this area. Since China is still in the process of transition, lessons learned from this area might be transferable to other settings that are undergoing societal change. Second, it focuses on the family. In China, as in some other places in this region, the family has not caught much research attention since it has been regarded to be less

important than many other social issues. With few exceptions of family scholars, for too long social scientists have rendered family issues a "private" concern, and comparative studies are even fewer. As is now more widely acknowledged, family issues may be of pressing public significance. Such issues can affect health and other aspects of social welfare of family members (Li 2004; MacDonald 2000; Wilkie et al. 1998; Xu and Lai 2004), as well as family policy, social security policy and eventually harmony society building. Lastly, it attempts to fill the gap of inadequate comparative study in family solidarity among East Asian countries or regions, using data from the 2006 East Asian Social survey. To my knowledge, there has been so far no comparative family study across China, Japan, Korea, and Taiwan due to data limits. This paper analyzes data from the most recent comparable survey with sufficient, representative cases. Prior to the 2006 East Asian Social Survey, each country or region has its own family survey data, which are not comparable and cannot be used for cross-country comparison. The 2006 East Asian Social Survey data enable us to compare family solidarity among the East Asian regimes.

Family change and family solidarity

Family solidarity

Intergenerational relationship, particularly parent-child relationship, can be classified as five categories: tight-knit, sociable, intimate but distant, obligatory, and detached based on three underlying dimensions: affinity, opportunity structure, and function (Silverstein and Bengtson 1997). Which pattern a family follows would be

affected by, and affect, family solidarity, which refers to residential solidarity, associative solidarity, and supportive solidarity among family members. The three types of solidarity are interrelated in that associative and supportive solidarity (particularly for non-economic support) are largely dependent on residential solidarity, which is in turn affected by the desires of support between generations.

Residential solidarity pertains to living arrangements among adult members of a family network, particularly among generations, which plays an important role in family life in the East Asian society. Changes in demographic characteristics and structural forces (i.e., educational expansion, geographic and occupational mobility, and urbanization) in the past several decades would have implications for residential solidarity (Bian et al. 1998; Hirschman and Minh 2002; Limanonda 1991). For parents, both the number and sex of children reshape intergenerational co-residence (Hirschman and Minh 2002). Number of children affects the prevalence of co-residence through affecting the pool of eligible adult children whom parents can live with, children's feeling of family obligation, and household living environment (Gao et al. 1993; Hirschman and Minh 2002). Single children, particularly the single son, might be more likely to co-reside with parents because there is no alternative children that parent can live with if such residential pattern is preferred. In low fertility regime, co-residence will be eventually lower simply because fewer couples have available sons to co-reside (Zhao 2000). Meanwhile, parent(s) must be available to co-reside. Reduction in mortality lengthens the survival years of parents, and provides more opportunities to co-reside than was the case in the past. Decreasing

income and worsening health status in old ages make co-residence attractive to the elderly, especially in a context without much extra-familial or institutional support. The death of a parent could increase the risk of children to co-reside with the widowed parent (Cooney and Shi 1999; Ikels 1993; Pimentel and Liu 2004).

For children, their own fertility may also affect co-residence: newly married couples and those with young children may need parental support economically, and in childcare and housework, motivating them to co-reside with parents (Milagros et al. 1995; Morgan and Hirosima 1983; Thornton and Fricke 1987).[1] Intergenerational reciprocity might be one of the major reasons for the continuation of multiple generation nuclear family between 1982 and 2000 China (Wang 2006). However, higher education exposes children to different ideas about the family, removes them from parental control, and thereby reducing the likelihood of parental-child co-residence (McDonald 1992). Hence, education and economic development affect residential solidarity by eroding tradition and creating new preferences for nuclear family residence (Hirschman and Minh 2002). Such desire is facilitated by occupational and geographic mobility[2] – from agriculture and the countryside to non-agriculture and urban areas. Accordingly, higher education, non-agricultural

[1] Additionally, there are Boomerang Kids who heavily rely on parents. Due to difficulty to find a job or decently paid job, they remain to stay with parents.

[2] There has been tremendous population geographic mobility in recent decades, particularly in China. In 2005, over 147 million of people are moving according to the 2005 One Percent Population Survey, and among them, over 60 percent are married. Geographical mobility enlarges the physical distance between adult children and the family of origin, making them less likely to live with parents. Also, migration improves family economy, facilitates the independence of adult children from parents, lessens parental control over children, and fosters new attitudes towards the family. All of these would have implications for family solidarity.

occupation and urban residence are found to relate to a higher risk of independent living arrangements, but a lower parent-child co-residence in Vietnam (Hirschman and Minh 2002), Thailand (Limanonda 1991) and China (Bian et al. 1998).

Associative solidarity relates to the frequencies of contacts between generations (Silverstein and Bengtson 1997). Intuitively, those with geographic proximity have more chances to meet than those living far apart, and this would in turn sets the basis for the interchanges of personal services and reinforces the availability of support in case of need (Spitze and Logan 1990) — associative solidarity might be affected by residential solidarity, and will affect supportive solidarity. With societal change, this form of solidarity becomes increasingly important in meeting social needs and in multiplying some resources such as mutual aid (Silverstein and Bengtson 1997).

China, Taiwan, Korea, and to a less extent, Japan, is characterized by a high density of contacts among kin members, particularly among members of the family of origin. In the countryside, when parents and married children do not co-reside, they tend to live nearby. Physical contacts between parents and adult children are frequent, reflecting the attachment embedded in the Confucius culture. Of course, parent-child contacts are conditional, in addition to geographical distance, on family norms and changes in biological and structural factors (i.e., age, marital status, working status, or housework patterns).

Solidarity manifested though co-residence or frequent contacts is interrelated to and facilitate supportive solidarity. Parent-child support is of two-directional and reciprocal, and involves in financial assistance and non-economic care. While the

former does not require geographic closeness, physical care is mainly a function of geographic proximity and frequency of contacts, particularly when it implies continuous care. For parents, on the one hand, in settings where institutional, professional or other types of elderly care is inadequate or where family support is the tradition, a very low proportion of the elderly in need receive non-family care, and the family, despite changing composition, remains the main institute responsible for elderly care (Landwerlin 2001). The spouse is the first choice of caregiver, followed by children (e.g., unmarried daughters or daughter-in-law). On the other hand, monetary resources can be transferred easily over long distance and circulated among generations in separate households. It is least affected by family change, and might be strengthened, given that children unable to care for parents physically tend to compensate parents financially, reflecting intimacy at distance.

Although parental need continues to outweigh children's as predictors of co-residence and intergenerational support in China, following the historical patterns (Bian et al. 1998; Logan et al. 1998), adults in East Asia may participate in these arrangements with the expectation of reversed support flows (Martin 1990). Young couples are financially burdened by family formation and building, but their financially established parents could provide them with housing and other supports (Logan et al. 1998, 1999). Meanwhile, modernization increases the incompatibility of work and the family, making the household help of co-residential kin attractive, and maintaining the common practice of grandparents' care of grandchildren, at least in China (Chen et al. 2000; Davis 1993, 2000). While the manifestation of family

solidarity is mainly activated through the male line due to the patriarchic, patrilineal and patrilocal system, maternal grandparents are also involved in childcare and housework help, and become more common due to changing family dynamics (Pimentel and Liu 2004).[3]

Changing family context and family solidarity

Changing family context suggests that parent and children might be less likely to co-reside, make frequent contacts, and provide physical care for various reasons, and thereby eroding family solidarity and reshaping household dynamics. However, while family change in East Asia shares similar patterns to the west, it has not brought about a deinstitutionalization of family life and the ways people enter, stay in, and go out of family life. Living arrangements among adult children and parents remain relatively stable between 1982 and 2000 in China, and parents are still willing to live with children in China and Korea. The number of households with three generations in China is 29 percent in 2000, and the percentage of adult children co-residing with parents should be much higher (Yang 2008). With regard to parent-child contacts, while more recent data (e.g., the China's 2000 Women Status Survey) has found that people spent free time more frequently with friends than with family members, parents and adult children maintain frequent contacts, regardless of residential patterns (Davis-Friedmann1991; Unger 1993). For financial support, China's 2000 census and 2005 One Percent Population Survey Data show that about two-thirds of elderly ages 60+ rely on family members for daily living sources, and this figure is 91

[3] For example, it is easier for the sons-in-law to get alone with the parents-in-law than for the daughters-in-law with the mothers-in-law. This pattern facilitates the co-residence between the sons-in-law and the parents-in-law, particularly in urban China.

percent for rural elderly in 2000; while decreasing, this figure still accounts for 60 percent for all elderly, and over 71 percent for rural elderly in 2005. Furthermore, across various age cohorts, most believe that it is one of the most important family function and obligation to take care of the elderly (Wang and Chen 1996).

These phenomena suggest that socioeconomic and demographic changes at the macro and household levels may not always imply nuclear family (Thornton and Fricke 1987), and do not necessarily weaken family solidarity. This challenges the notion of family convergence predicted by modernization theory (Freedman et al. 1982; Morgan and Hirosima 1983; Weinstein et al. 1994). Several factors can be identified for the continuity of the principle of intergenerational solidarity: traditional family norms have not changed accordingly with family changes; the inadequacy of public support makes the economic independence of the elderly households less possible, particularly for rural families[4], and practical constraints of economic interdependence and reciprocity between generations ((Milagros et al. 1995; Morgan and Hirosima 1983; Pimentel and Liu 2004; Thornton and Fricke 1987; Wang 2006).

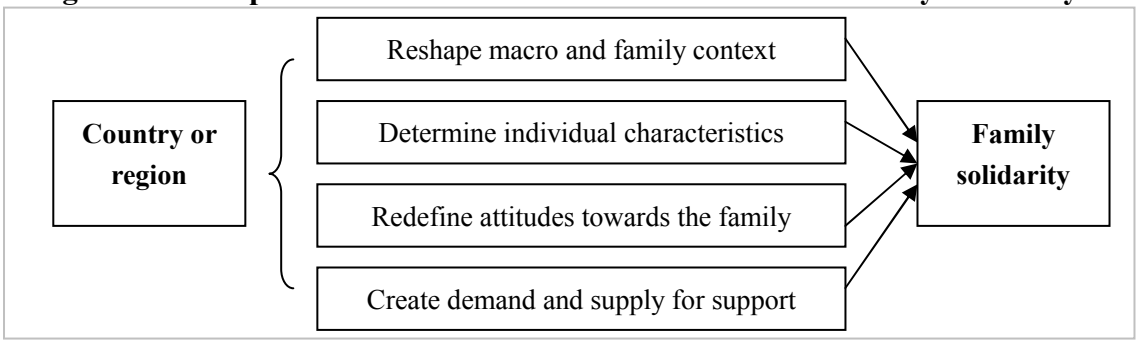
However, these factors may vary by regimes in East Asia, although they share similarities due to similar cultural background and patterns of demographic transition. First, socioeconomic structure varies across the four regimes. People may differ in educational background, occupational attainment and income, and in time availability in intergenerational contacts and care support. In China, for example, most adults engage in full-time job, while many wives exit the labor force after childbirth in other

[4] In fact, the elderly in the countryside tend to live with their offspring more often than the urban elderly who are more likely to live in empty nests.

three regimes, demanding less childcare support from parents. Second, public support system differs among the four areas. China is substantively underdeveloped in public support for the elderly, while Japan has the best elderly support system. Third, the four regions may also differ in family norms. In addition to the lower socioeconomic advancement and demographic transition, China has also experienced the unique Cultural Revolution which attempts to eliminate the impact of Confucius tradition, and the strict birth planning policy that poses great restrictions to individual fertility. The various macro and household contexts, individual background, and social support systems may reshape divergently people's attitudes towards the family. Hence, it is possible that the four areas bear various relationships to family solidarity in general, and to different aspects of family solidarity in particular.

This line of thinking is depicted in Figure 1. A region might be linked to family solidarity through four intermediate factors: macro and family context, individual characteristics, attitudes towards the family, and demand and supply for support.

Figure 1. Conceptual Framework of Macro Difference and Family Solidarity



Data and methods

This paper draws on data from the 2006 East Asian Social Survey to examine the current status, patterns and associates of family solidarity, and to compare the

similarities and differences among the four areas. The survey interviews household heads, collecting data on the family, respondents, their parent, spouse and children, which provide rich information on family relationships, and is perhaps the only data allowing comparisons among the four regimes. The unit of analysis of this paper is the household head, and the analysis is done from the perspective of adult children (in relation to parents). Since I am interested in parent-child interchange, the availability of parents is required. Thus, the sample size is limited to respondents with at least one parent alive at the time of the survey. When respondents' parents passed away and spousal parent(s) is alive, I replace the corresponding missing values of parents with spouse's parents. This, together with the exclusion of missing data in variables, gives rise to a sample size of 5789. Among them, 2098 families (35.68 percent) come from Mainland China, 1205 families (20.49 percent) from Japan, 1139 families (19.37 percent) from Korea, and the rest 1438 families (24.46 percent) from Taiwan.

Variables

Dependent variables: In order to comprehensively examine parent-child solidarity, this paper investigates six dependent variables to represent the three types of solidarity. One variable, residential pattern between parents and children, is used to assess residential solidarity.[5] The concept of associative solidarity is operationalized by the frequency of parent-child contacts, including both face-to-fact and other types of contacts (e.g., by telephone, emails, and letters). It is derived from the following survey questions: "How often do parents and children contact face-to-face?" "How

[5] I have also tried other measures of residential patterns. Since co-residence parsimoniously reflects residential solidarity, it is used as one of the dependent variables.

often do parents and children contact in other ways?" As a continuous measure, it ranges from 1 to 8 where 8 reflecting more frequent contacts. Although face-to-face contact requires geographic proximity, other types of contacts do not require locational closeness. However, a longer distance may suggest higher costs of communication, and hence, the farther away parents and children reside, the fewer contacts between them might be.

Four variables, children's monetary support to parents, children's care support to parents, and parental monetary support to children, and parental care support to children, are utilized to address intergenerational reciprocity (i.e., supportive solidarity). They are based on the questions of "how frequently the respondents provide financial support/care work to own parents" and "how frequently parents provide financial support/care work to respondents," respectively. They are coded dichotomously where 0 indicates not providing support (including the categories of "seldom" and "not at all") and 1 indicates providing at least some support (including the categories of "very frequently", "often", and "sometimes").

Key predictors: Regions and a continuum measure of residence are the key predictors. The four dummies, Mainland China, Japan, Korea and Taiwan, are used as proxies of modernization and to capture contextual effect on family solidarity. A continuum measure of geographic distance between children and parents, a proxy of residential solidarity, is used to predict associative solidarity and supportive solidarity. It has four categories, co-residence or neighbor, 15 minutes' walk, 30-60 minutes' drive, and Farther away. Distance is expected to reduce the convenience of contact

and physical care between generations.

Control variables: Respondents' demographic and socioeconomic background and attitudes towards the family, and parental characteristics are controlled for to address the issues presented at the beginning of this paper. Respondents' age may relate to the outcome variables since newly married respondents need parental help with childcare, and single respondents may have not left parental nests. As people get older, they have to take care of their own family, and may not have sufficient resources to frequently contact with, or provide support for, parents. In East Asian tradition, adult daughters tend not to co-reside with, and provide monetary support to, parents, but maintain contacts with and provide care support to parents. Marital status is operationalized as never married vs. ever married. Number and sex of siblings matter for parental-child exchange.[6] The single son and single children have more obligations to co-reside and contact with, and provide various support to parents, and vise versa. Respondents' education is gauged as <=primary education, middle school, high school, and >high school, while occupational prestigious score is a continuous variable, ranging from 0 to 100. Work status is classified as five categories: full time, part time, self-employment, housework, and other (including students or military service, retired, permanently disabled, not in the labor force, or unemployed), to measure the convenience of parent-child interactions. To explicitly gauge respondents' family norms, I use desire for three generational co-residence and attitudes toward

[6] Sibship composition has been specified in other ways, including (1) composite measures of sibsize and gender: number of brothers, number of sisters, single son, single daughter, and (2) composite measure of sibsize, parity and sex of sibling: number of older brother, number of younger brother, number of older sister and number of younger sister. Regardless of variable specification, the measures reported in this paper matter more than other specifications, particularly number of brothers. For parsimony, this paper only presents findings of this variable.

supporting parents. Individual desiring for such living arrangement might be more family oriented, and tend to co-reside with parents. Similarly, respondents who agree that children should support parents, they tend to live near and support parents. Controlling these variables is important for avoiding selectivity bias.

This analysis also controls for parental characteristics: the age of the younger parent, parental marital status and health status.[7] To deal with the problem that parental age and children's age are highly correlated, parental age is continuously coded. Marital status has three categories: both alive, only father alive and only mother alive. Health is a dichotomous variable where 1 indicating bad health.

(Table 1 about here)

Analytical methods

The analysis of this paper proceeds in two steps. First, descriptive statistics, univariate and bivariate, are done to determine the distribution of variables, and the associations between the predictors and the outcomes. Second, models will be fit to explore the independent correlations between the predictors and various dependent variables, and assess the similarities and differentials among the four regions in intergenerational relationships. Since the outcome variables are measured either dichotomously or continuously, this analysis employs two types of regression models: OLS for contacts, and logistic for other outcomes.

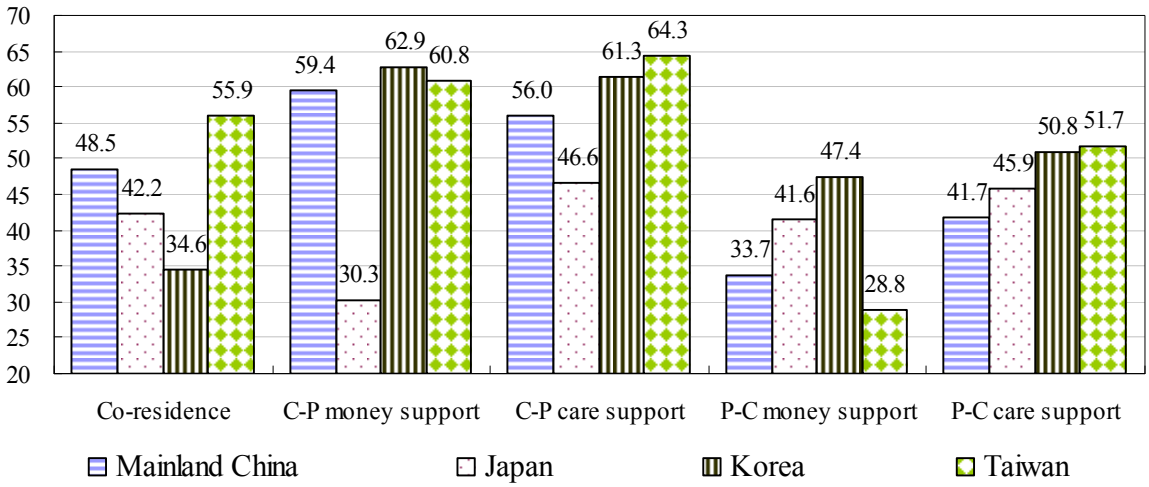
[7] I have also explored the relationship between parental education and employment (about 33 percent of parents remain employed in the sample) with the outcome variables. Higher socioeconomic status is anticipated to enable parents to be more independent, better support themselves, and maintain more contacts with children. However, the results do not support the inclusion of them in the analysis since they neither bear significant relationship to the outcome variables, nor intervene with the relationship of the predictors used in the final models and the dependent variables.

Analytical results

Descriptive statistics

Figures 2-3 and Table 2 present bivariate results between the dependent variables and the key predictors, and the control variables, respectively. The focus here is only on the former, but it is important to note that almost all control variables are significantly related to the outcomes. In Figure 2, the four areas differ in the five dichotomous dependent variables: Taiwan has the highest rate co-residence, children's care support to parents, and parental care support for children, suggesting that it seems to maintain stronger intergenerational exchange and family solidarity in the transitional era. Intriguingly enough, the percentages of parental monetary and care support for children in Mainland China are the lowest among the four places.

Figure 2. Bivariate Analysis between Country/Region and Family Solidarity



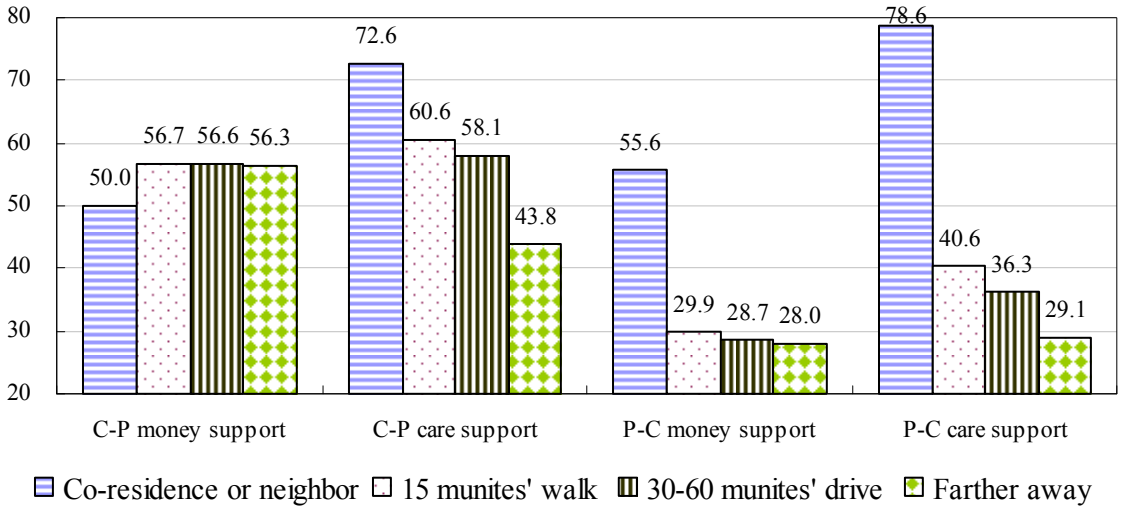
Source: 2006 EASS.

Note: C-P=children to parent; PC=parent to children. The same is true for the following figures.

Figure 3 describes the correlation between parent-child residential patterns and

the four intergenerational support variables. While China is slight lower, there is not much difference in children's monetary support to parents among the four categories of residence. With regard to whether cash transaction can easily be done regardless of geographic distance, results show that those who co-reside or live nearby doubles those of other living patterns, indicating that distance still pose barriers for financial transfer. When it comes to care support, geographic proximity matters a lot: those who co-reside or live nearby have a much higher chance to take care of each other than other living patterns, particularly so for parent-to-child care support.

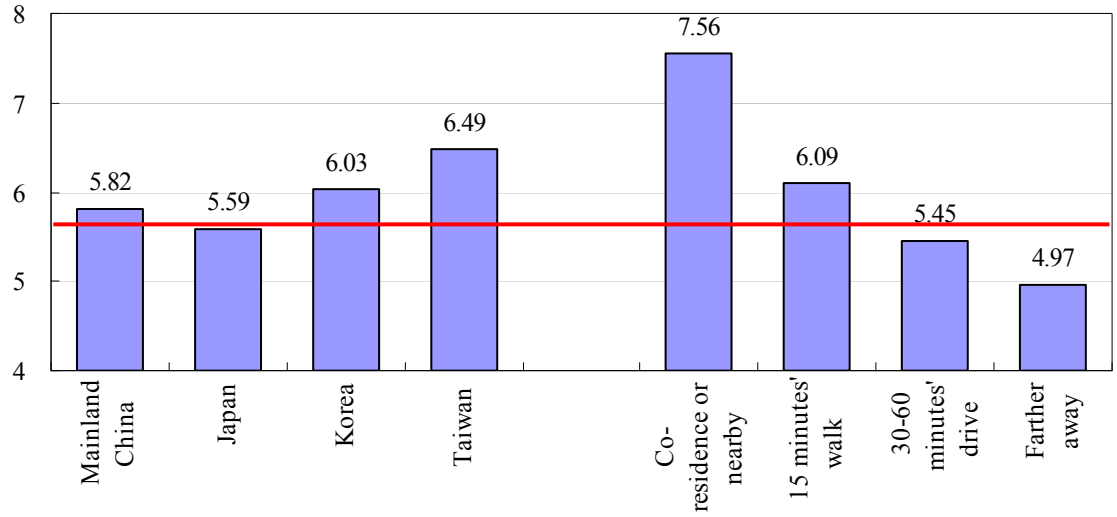
Figure 3. Bivariate Analysis between Residential Pattern and Supportive Solidarity



Source: 2006 EASS.

The frequency of parent-child contacts also vary significantly across regions, and across geographic distance (see Figure 4). Korea and Taiwan relate to a higher frequency of parent-child contacts than China and Japan; those co-residing and living nearby have a much higher frequencies of parent-child contacts than other living patterns, and the relationship between distance and contacts is almost linear.

Figure 4. Bivariate Analysis between Country/Region or Residential Pattern and Associative Solidarity



Source: 2006 EAGS.

Note: The horizontal line is the mean contacts, used as the reference where the bars below this line indicating fewer contacts than the mean, and vice versa.

(Table 2 about here)

Descriptive statistics clearly show that all these dependent variables indeed vary by country or region, and associative and supportive solidarity varies by residential patterns. However, such relationship may be confounded by other factors since, as Table 2 shows, the various measures of residential solidarity, associative solidarity and supportive solidarity also vary by respondent and parental characteristics. To find out the net effect of the key predictors on the outcome variables, I now estimate a series of regression models, holding constant of aforementioned control variables.

Model results

To better assess the confounding or intervening effect of control variables on the relationship between key predictors and outcome variables, I first fit models only with

key predictors. Results (not shown here) indicate that Japan, Korea, and Taiwan all significantly differ from China (the reference) in the six outcomes except co-residence and children's financial support to parent between China and Taiwan. The addition of control variables strengthens the country effect, as the size of coefficients become larger, meaning that there are positive interactions between regions and some predictors. Below, I describe the findings from the full models for each of the dependent variables (see Table 3).

(Table 3 about here)

Country or region: All else equal, respondents in Japan and Korea are less likely to co-reside with parents than their peers in Mainland China, but those from Taiwan do not differ from respondents from Mainland China, indicating that China and Taiwan share more similarity in this regard. In China, Korea, and Taiwan, parent-child co-residence has long been valued as the ideal living arrangements, and for wealthy households, multigenerational co-residence has been practiced. While much has changed in recent 30 years, the Chinese from both Mainland China and Taiwan tend to maintain such residential pattern more than the Koreans and Japanese.

As is the case of residential solidarity, Japan and Korea, and also Taiwan differ significantly from China in associative solidarity, but the pattern is not entirely the same: while the Japanese contact parents less frequently, but the Koreans and Taiwanese contact parents more often, than the Chinese. This suggests that the relationship between regions and associative solidarity differs from its relation to residential solidarity. Judging from the coefficients, it is clear that the Koreans contact

with parents most frequently, while the Japanese lest frequently. While it deserves further study on whether this suggests that the Japanese have the weakest family ties, it appears that the Koreans and Taiwanese both maintain a strong family cohesion.

The relationship between regions and supportive solidarity is more complicated than the other two types of solidarity since it involves in reciprocal relationship. Compared with Mainland China, Japan is inversely linked to children's financial and care support to parents, while Korea and Taiwan are positively associated with them. When it comes to parental support for children, however, the pattern of Japan and Taiwan reverses such that Japan is now positively associated with money and care support from parents to children, and Taiwan is the opposite in parental monetary support to children. Again, Korean parents provide the most financial and care support to children among the four areas.

Residential patterns: Geographic distance between parents and children is indeed a strong predictor of associative solidarity: locational proximity facilitates contacts, and vice versa. Although distance does not matter for children's financial support to parents, a longer distance reduces the likelihood of care support from children to parents, as well as financial and care support from parents to children; the magnitude of reduction is in proportionate to distance. That why distance only reduces parental financial support to children but bears no effect on children's financial support to parents deserves further exploration.

Respondents' demographic characteristics: Different types of family solidarity also vary by control variables, all else equal. Taking all outcomes together, it has been

found that children's age only relates to co-residence and parental care support to children: the older the children are, the less likely they co-reside with parents and receive parental care support. A middle-aged respondent is as likely as others to contact with parents, to provide economic and care support to parents, and receive parental money support. The relationship between sex of children and the outcomes is more complicated. Although a daughter tends to contact less frequently with parents, provide less monetary support to parents, and receive less care support from parents than a son, there is no significant difference between the two sexes in co-residence with, care for, and financial support from parents. What is particularly striking is the non-significant yet positive coefficient for girl's care for parents. The net upward trend in care support may suggest that a daughter is just as important as a son (and perhaps more important than a son in parental care), and can be interpreted as a shift toward increased behavioral deviance from tradition. It is an important sign since in these low fertility regimes, many parents will have no son, and who takes care of parents in their old ages become a public and private concern. Children's marital status is the strongest predictor among all covariates across the six models: unmarried respondents are much more likely to co-reside and contact with, and receive support from, parents than those ever married.

The most surprising finding is detected with the effect of single son on the outcome variables except for co-residence: single sons tend to co-reside with parent, but contact less often with parents and provide less financial and care support to parents. We read the higher probability of co-residence with parents of single children

as greater resources or a sense of obligation, because filial obligations cannot be shared with brothers. Similarly, sons are expected to provide psychological comfort (measured by contacts), and physical and material support for parents; if the son is the single son, he has no alternatives but to take on these responsibilities. To interpret the inverse association of the single son with other outcomes, we might consider the possibility that parents with only one son have more daughters who take care of them, or the parents have better capacity to support themselves without much need from the son's support. Number of brothers is linked to residential and associative solidarity, and only parental support to children. As the number of brothers increases, respondents have a reduced risk of co-residence and contacts with parents, and to receive support from parents. Together with the variable of single son, we may infer that the sex of children becomes less important for parental live in their old age when family context has much changed.

Respondents' socioeconomic status: The relationship between education and co-residence is in inverse U-shape in that middle school and high school education are positively correlated to the probability of co-residence, but college education is negatively yet non-significantly associated with it. Educational effect on contacts and supportive solidarity is positive. The upward trend by level of education in almost all the outcome variables contradicts to what the modernization theory would predict. It is possible that better educated respondents, particularly those with college education, while less likely to co-reside with parents, have better capacity to provide psychological comfort and support to parents. Similarly, for parents who can better

educate children, they may have more resources to support children. This implies that intergenerational exchange is mostly manifested among higher socioeconomic class. In fact, judging from the direction of coefficients, child-parent support and parent-child support are the same only with the education variable. That is, when children are able to support parents, parents are able to reciprocate.

Work status is more complicated, yielding no uniform findings across the outcomes. Compared with full time work, self-employment and other status (e.g., being in school, unemployed, disabled) are linked to a higher risk, but housework relates to a lower risk, of co-residence with parents, while part-time work does not significantly differ from the reference group. Self-employment and the "other" have more flexible working schedule and location than full time job, which present them better opportunity to co-reside with parent. However, contacts do not vary across various employment statuses, suggesting that psychological comfort to parents is less constrained by it. Employment status has a stronger effect on financial support than on care support, and its effect on children's financial support to parents is precisely the opposite to parental financial support to children. Full time job relates to a higher probability to financially support parents than other work statuses, but its difference from self-employment is insignificant; conversely, parents provide less financial support to children fully employed and self employed. This implies that parents tend to support needed children financially, since part-time employment, doing housework, and other status might be linked to lower income.

Respondents' attitudes towards the family: They are strong associates of

respondents' family behaviors in relation to parents. As expected, respondents' desire for three generational co-residence bears a strong and positive correlation to contact with parents and provide monetary and care support to parents. Similarly, if respondents believe that children should support parents, they are more likely to provide support to parents.

Parental background: Will the above effects be entirely a product of the increased availability of parents surviving to the adult stage of their children? The answer is clearly no since the models control for parental age. Neither co-residence nor contacts significantly varies by the age of younger parent, but supportive solidarity does. As parents age, they receive more monetary and care support from children and provide less to them, all else equal. This suggests that the age of parents is less important for co-residence or contacts, but more important for support, and that co-residence and contacts is not a function of parental age. Parents have fewer channels of resources as they age and their physical function becomes weaker, which reduces their capacity to support children, and demands more support from children. The composite measure of parental sex and marital status correlates to the outcome variables in that the widowed mother is associated with a higher likelihood of co-residence, more frequent contacts, and support from children but less support to children than those whose spouse is alive. Such finding is consistent with the existing wisdom. Another surprising finding emerges with parental health: if one parent is in bad health, children contacts less frequently with parent, and although they tend to support such parents more financially and in care, such support does not make a statistical difference. It

might be that parents in bad health tend to co-reside with children; once residential patterns are controlled for, health effect on contact and support goes away. Overall, parental background weighs divergently from children's background for different outcomes. In predicting children's behaviors (e.g., co-residence and contacts with parents, and support for parents), children's characteristics is far more important than parental background. Conversely, in predicting parental support for children, parental information becomes more significant.

Summary, discussion, and conclusion

It is not easy to assess how changes in the family and broader context may affect parent-child solidarity due to the difficult to measure the process of change, and the potentially complex relationship between parent-child dynamics and societal change: some changes may bear positive effects on some dimensions of family solidarity, while others negative, and still others bear no effects, depending on structural context at multiple levels and cultural tradition of the family. These complexities make it necessary and important to examine multiple indicators of family solidarity across countries. This paper compares the current status, patterns and associates of family solidarity, measured by parent-child co-residence, contacts, and support, among Mainland China, Japan, Korea and Taiwan, places with a strong family tradition yet profound family and societal changes. Findings emerging from this analysis allow me to address the three issues raised at the beginning of this paper.

First, the basic function of the family retains both ideologically and practically

despite socioeconomic transformation, demographic transition, and changes in family context in East Asia. Family solidarity is far from eroded; intergenerational support system continues to operate within and across households, although adopted new forms and contents, which cannot be interpreted as a general weakening of family bonds. Ideologically, approximately two-thirds of adult children desire for three-generation co-residence, and over two-thirds believe that it is children's responsibility to support parents and meet parental needs. Practically, while not all respondents who desire do to so are able to realize their desire due to various constraints, almost half co-reside with parent; most contact with parents frequently, and over half provide financial and care support to parents. Parents reciprocate, although to a lesser extent. Intergenerational reciprocity in parental care, childcare, housework help, psychological comfort and economic support are the most striking manifestations of interchanges among generations. These exchanges occur regularly and frequently, particularly in occasions when parents and children live nearby. In cases when parents and children live apart, infrequent and situation-specific contacts are practiced, and exchanges in person have been reduced. Nevertheless, economic support from children to parents is maintained.

We interpret the continuation of family solidarity in two ways. Practically, generational resources make modern society and family solidarity compatible. The factors of high labor force involvement of women, the conflict between work and the family, insufficient professional and institutional support for the elderly, or the dissatisfaction of the elderly with the market or the welfare state provisions all make

intergenerational exchange in time, services and finance attractive. This in turn sets the conditions for a continuation of family solidarity. Culturally, tradition may also play a role. Modernization theory predicts a divorce from the tradition, but this has not happen, because aside from practical reasons, cultural norms not measured here have pushed up the observance of family customs. Such deviational findings might be due to the struggle, still in progress, to maintain family customs in the face of modernization forces that inevitably conflict with cultural traditions. We interpret this to mean that there are very strong social pressures to conform to the cultural norm of intergenerational co-residence, contacts and support. Thus, far from eroding it, interdependence between generations has successfully maintained family solidarity.

Second, there are great disparities in the expressions of family solidarity in general and in different types of solidarity in particular across the four regimes in the East Asian society. Although, compared with the Mainland Chinese, the Koreans are less likely to co-reside with parents, they contact parents more frequently and are more likely to support parents; they also receive support from parents. The Taiwanese shows a similar pattern except for parent-child monetary support. Considering all the six indicators together, particularly those from the perspective of children, and ranking the four regions in family solidarity based on the size of the coefficients, it appears that family solidarity is most strongly maintained in Korea, followed by Taiwan, and Mainland China, but lest perpetuated in Japan. While it is more complicated in supportive solidarity, Korea ranks the first in the first four measures. Hence, the rapid process of modernization in Korea does not seem to bring about

corresponding erosion of family solidarity. Conversely, the lest modernized China does not maintain a parent-child relationship that is as strong as Korea and Taiwan. However, more similarities between Taiwan and China across the four regions are detected except for monetary support from parents to children. We read this as the same cultural root of family norms.

The Japanese family shows lest solidarity among the four regions because the Japanese respondents are lest likely to co-reside and contact with parents, and provide support to parents; conversely, they are more likely to receive support from parents. It appears that intergenerational relationship in Japan follows a pattern more similar to that in the west; that is, supports pass on from the older generation to the younger one. We read this as a reflection of fierce competition in the Japanese society, and higher income return to age in Japan than in other regions so that the Japanese parents are able to provide more support to children. It is also possible that the Japanese culture has been largely reshaped by the western culture since the Second World War due to the occupation of American army. Such results partly support the modernization theory, for the most modernized Japan maintains the weakest family solidarity.

Third, residential solidarity bears a strong relationship to associative and supportive solidarity. Spatial distance presents inconvenience for intergenerational exchange, particularly in personal contacts and physical care since it bears a stronger effect on contacts and care support than on monetary transfer. There are also variations in financial exchange: children's money support to parents is unaffected, but parental money support to children is inversely associated with distance. Clearly,

there is a big gap between co-residence and living nearby or 15-minute-walk distance, but the difference between the latter and those who live farther away is almost linear, suggesting that geographic proximity is indeed important for intergenerational dynamics and family solidarity.

This has clear implications for the family function and relevant public policies. We have note that, while the son(s) and daughter(s) continue to provide money to and care for parents and receive support from parents, there are signs which also point to changes in this aspect. Changing population context (e.g., low fertility, longer-distance migration) and modernization make parent-child co-residence problematic, and set the basis for a deepening of the principle of "intimacy at distance" among generations: the proportion of adult children live in parental home has dropped, and parents living in children's home and empty nests have grown (Wang 2006). Meanwhile, although most elderly ages 65+ co-reside with children in China in 2000 (Zeng 2004), compared with 1990, the proportion of male elderly and female elderly who live with children drops by 11.4 percent and 7.2 percent, respectively. As children migrate out for various reasons, they may not be able to provide physical support to and receive support from parents due to time constraints or geographic distance even if both sides are willing to do so. However, population aging generates more elderly demanding for support, and the increasing incompatibility between work and the family makes professional care be more broadly envisaged by the younger generations. There is a growing demand for responsibility from government institutions and the society for support for private

spheres, and for establishing better public support systems and reformulating family-friendly public policies, particularly in Mainland China. Nevertheless, such expectation, while pointing to the weakening of traditional ways of family solidarity, cannot be interpreted directly as family failure. Family solidarity has proved its strength and adaptive capacity. Family members remain the major suppliers of services and support, material and immaterial alike. Cultural continuation outweighs the modernization forces when market and state failed.

Reference

Bian, FB, JR. Logan, and YJ Bian. 1998. Intergenerational Relations in Urban China: Proximity, Contact, and Help to Parents. *Demography* 35(1):115-124.

Chen, F., S. Short, and B. Entwisle. 2000. The impact of grandparental proximity on maternal childcare in China. *Population Research and Policy Review* 19：571-590.

Chen Jieming. 1998. Investment and Support: Causal analysis of intergenerational exchange in urban China. *China Social Science* 6.

Cohen, M. L. 1976. *House United, House Divided: the Chinese Family in Taiwan*. New York: Columbia University Press.

Cooney, RS., and Jing Shi. 1999. Household extension of the elderly in China, 1987. *Population Research and Policy Review* 18:451-471.

Davis, Deborah. 1993. Urban households: supplicants to a socialist state. In *Chinese Families in the Post-Mao Era*, edited by Deborah, Davis, and S. Harrell, pp. 50-76. Berkeley: University of California Press.

----------. 2000. Reconfiguring Shanghai Households. In *Re-Drawing boundaries: Work, Households, and Gender in China*, edited by Entwisle, Barbara, and G. Henderson, pp. 245-260. Berkeley: University of California Press.

Davis-Friedman, Deborah. 1991. *Long Lives: Chinese Elderly and the Communist Revolution* (2nd ed.). Harvard University Press.

Freedman, Ronald, Ming-ching Chang, and Te-hsiung Sun. 1982. Household composition, extended kinship and reproduction in Taiwan: 1973-1980. *Population Studies* 44(2): 217-239

Gao, Ersheng et al. 1993. Ren Kou Yu Jing Ji.

Goode, Willaim J. 1963. *World Revolution and Family Patterns*. New York: Free Press of Glencoe.

Hanley, Susan, and Arthur P. Wolf. 1985. *Family and Population in East Asian history*.

Stanford University Press.
Hirschman, Charles, and Nguyen Huu Minh. 2002. Tradition and change in Vietnam family structure in the Red River Delta. *Journal of Marriage and the Family* 64(4):1063-1079.
Ikels, Charlotte. 1993. Settling accounts: the intergenerational contract in an age of reform. In *Chinese Families in the Post-Mao Era*, edited by Davis, Deborah and Steven Harrell, pp.307-334. Berkeley: University of California Press.
Landwerlin, Meil G. 2001. Individualization and family solidarity: the case of Spain. Available at http://www.demogr.mpg.de/Papers/workshops/010623_paper22.pdf, accessed in April 8, 2008.
Lavely, William, and Xinhua Ren. 1992. Patrilocality and early marital co-residence in rural China, 1955-1985. *The China Quarterly* 130:378-391.
Lee, J. Z., & Campbell, C. D. 1998. Headship succession and household division in three Chinese banner serf populations, 1789-1909. *Continuity and Change* 13:117-141.
Lee, James Z., and Jon Gjerde. 1986. Comparative household morphology of stem, joint, and nuclear household systems: Norway, China and the United States. *Continuity and Change* 1: 89-111.
Li, Jiang Hong. 2004. Gender inequality, family planning, and maternal and child care in a rural Chinese county. *Social Science and Medicine* 59(4):695-708.
Limanonda, B. 1991. Family formation in Thailand with special reference to marriage and coresidence, in B. Limanonda, CP and M. Wongsith (ed.) *Report on a Thai Family and Household Survey*, IPS Publication No. 186/91, Bangkok: Institute of Population Studies, Chulalongkorn University.
Logan, John, Fuqin Bian, and Yanjie Bian. 1998. Tradition and change in the urban Chinese family: the case of living arrangements. *Social Forces* 76(3):851-882.
Logan, John, and Fuqin Bian. 1999. Family values and coresidence with married children in urban China. *Social Forces* 77(4):1283-1282.
McDonald, Peter. 2000. Gender equity in theories of fertility transition. *Population and Development Review* 26(3): 427-439.
McDonald, Peter. 2000. Gender Equity in Theories of Fertility Transition. *Population and Development Review* 26.
Martin, Linda G. 1988. The aging of Asia. *Journal of Gerontology: Social Sciences* 43:S99-113.
Merril Silverstein, Vern L. Bengtson. 1997. Intergenerational Solidarity and the Structure of Adult Child-Parent Relationships in American Families. *American Journal of Sociology* 103(2): 429-460.
Milagros, Maruja, B. Asis, Domingo Lita, John Knodel, and Kalyani Mehta. 1995. Living arrangements in four Asian countries: a comparative perspective. *Journal of Cross-Cultural Gerontology* 10:145-162.
Morgan, S. Philip, and Kiyosi Hirosima. 1983. The persistence of extended family residence in Japan: Anachronism or alternative strategy? *American Sociological Review* 48:269-281.

Parish, W.L., and Whyte, M. K. 1978. *Village and Family in Contemporary China*. Chicago, IL: The University of Chicago Press.

Pimentel, EE., and Jinyun Liu. 2004. Exploring nonnormative coresidence in urban China: living with wives' parents. *Journal of Marriage and Family* 66:821-836.

Spitze, G, and J. Logan. 1990. Sons, Daughters and Intergenerational Social Support. *Journal of Marriage and the Family* 52:420-430.

Thornton, Arland, and Thomas Fricke. 1987. Social change and the family: comparative perspectives from the West, China, and South Asia. *Sociological Forum* 2:746-779.

Tsui, Ming.1988. Change in Chinese urban family structure. *Journal of Marriage and the Family* 51:737-47.

Unger, Jonathan. 1993. Urban families in the eighties: an analysis of Chinese surveys. In *Chinese Families in the Post-Mao Era*, edited by Davis, Deborah and Steven Harrell, pp.25-49. Berkeley: University of California Press.

United Nations. 2009. *World Population Prospects: the 2008 Revision*. Available at http://esa.un.org/unpp/

Wang, Yuesheng. 2006. Analysis of the family structure in Contemporary China. *China Social Science 1.*

Weinstein, M., Sun, T., Chang, M., & Freedman, R. 1994. Co-residence and other ties linking couples and their parents. In A. Thornton and H. Lin, eds. *Social Change and the Family in Taiwan*, pp. 305-334. Chicago: University of Chicago Press.

Whyte，M., W. Parish. 1984. *Urban Life in Contemporary China*. Chicago: University of Chicago Press.

Wilkie, Jane Riblett, Myra Marx Ferree, and Kathryn Strother Ratcliff. 1998. Gender and fairness: marital satisfaction in two-earner couples. *Journal of Marriage and the Family* 60(3):577-594.

Won, Young-Hee, and Gary R. Lee. 1999. Living arrangements of older parents in Korea. *Journal of Comparative Family Studies* 30(2):315-328.

Whyte, Martin, and William Parish. 1984. *Urban Life in Contemporary China*. Chicago: University of Chicago Press.

Xu, Xiaohe, and Shu-Chuan Lai. 2004. Gender ideologies, marital roles, and marital quality in Taiwan. *Journal of Family Issues* 25(3):318-355.

Yang, Juhua. 2008. Continuity or change? Economic development and post-marital living arrangements in China. *Population and Development* 5:11-22.

Zhao, Z. 2000. Coresidential patterns in historical China: a simulation study. *Population and Development Review* 26:263-293.

Zeng, Yi. 2004. *Population Study in China*, pp. 162-182. Beijing: Beijing University Press.

Table 1 Variable Definition and Univariate Analysis

Variables	Definition	Percent/Mean
Dependent variables		
Co-residence	1=Co-residence with parents; 0=otherwise	46.41
Contacts	Frequency of parent-child contacts	5.98
Parent-child support		
C-P money support	1=At least some monetary support to parents; 0=otherwise	54.35
C-P care support	1=At least some care support to parents; 0=otherwise	57.06
P-C money support	1=At least some monetary support to children; 0=otherwise	36.85
P-C care support	1=At least some care support to children; 0=otherwise	46.82
Key predictor		
Countries or region		
Mainland China	1= The family is located in Mainland China; 0=otherwise	35.68
Japan	1= The family is located in Japan; 0=otherwise	20.49
Korea	1= The family is located in Korea; 0=otherwise	19.37
Taiwan	1= The family is located in Taiwan; 0=otherwise	24.46
Geographic distance from parents		
Co-residence or neighbor	1=Co-residence or next door; 0=otherwise	30.24
15 minutes' walk	1=Within 15 minutes' walking distance; 0=otherwise	12.33
30-60 minutes' drive	1=Within 15-30 minutes' driving distance; 0=otherwise	17.23
Farther away	1=Farther away; 0=otherwise	40.20
Control variables		
Respondents' background		
Age		
Ages 17-34	1=Ages 17-34; 0=otherwise	41.82
Ages 35-54	1=Ages 35-54; 0=otherwise	49.32
Ages 55+	1=Ages 55+; 0=otherwise	8.86
Female	1=Female; 0=otherwise	53.59
Never married	1=Never married; 1=otherwise	27.09
Single son	1=Respondents is the only son; 0=otherwise	
Number of brothers	Number of brothers, ranging from 0-3+	1.31
Education		
<=primary education	1=Have no or primary education; 0=otherwise	10.53
Middle school	1=Have middle schooleducation; 0=otherwise	41.02
High school	1=Have high school education; 0=otherwise	25.22
>high school	1=Have higher than high school education; 0=otherwise	23.23
Working status		
Full time	1=Work full time; 0=otherwise	48.55
Part time	1=Work part time; 0=otherwise	9.22
Self-employment	1=Self-employed; 0=otherwise	15.15
Housework	1=Doing housework; 0=otherwise	10.12
Other	1=Other; 0=otherwise	16.96
Respondents' attitudes towards the family		
Desire for coresidence	1=Desire for three generational residence; 0=otherwise	62.58
Should support parents		
Agree	1=Agree or strongly agree; 0=otherwise	71.82
Does not matter	1=Neither agree nor disagree; 0=otherwise	18.89
Do not agree	1=Disagree or strongly disagree; 0=otherwise	9.29
Parental background		
Age	Age of parents	64.85
Marital status		64.85
Both alive	1=Both parents alive; 0=otherwise	64.83
Father alive	1=Only father alive; 0=otherwise	6.57
Mother alive	1=Only mother alive; 0=otherwise	28.60
Bad health	1=Very bad or bad health; 0=otherwise	34.42

Source: 2006 East Asian General Survey.

Table 2. Cross-tabulation between Dependent Variables and Control Variables

	Co-residence	Contacts	C-P money support	C-P care support	P-C money support	P-C care support
Respondents' background						
Age						
Ages 17-34	69.90	6.50	49.77	61.52	54.54	67.35
Ages 35-54	30.09	5.65	59.29	54.51	25.63	34.94
Ages 55+	26.16	5.37	50.00	51.16	15.31	16.47
Girl						
No	52.07	6.30	58.34	58.08	38.07	53.39
Yes	41.46	5.70	51.09	56.20	35.65	41.14
Never married						
No	30.42	5.56	57.45	53.25	26.92	35.39
Yes	89.45	7.11	63.57	77.75	46.15	67.51
Single son						
No	42.73	5.87	55.45	56.85	34.19	43.68
Yes	69.02	6.68	47.63	58.32	53.22	66.10
Number of brothers						
None	62.96	6.45	46.13	58.96	52.44	60.38
One	48.68	6.03	53.57	57.58	39.25	51.01
Two	33.91	5.66	59.38	57.12	26.53	36.25
Three+	30.41	5.51	63.29	52.04	18.67	27.69
Education						
<=primary educatio	33.28	5.29	53.90	48.21	16.72	26.62
Middle school	42.92	5.85	55.66	54.70	31.43	41.72
High school	55.94	6.26	49.56	65.24	49.22	57.91
>high school	47.89	6.21	58.11	56.70	41.82	53.00
Working status						
Full time	45.54	5.97	62.49	57.17	32.72	48.08
Part time	47.21	5.82	39.96	56.32	47.77	46.28
Self-employment	43.00	5.86	63.66	53.39	24.83	40.41
Housework	19.02	5.25	48.15	52.53	29.80	30.81
Other	67.61	6.64	35.03	63.65	57.36	58.88
Respondents' attitudes towards the family						
Desire for coresidence						
No	41.10	5.86	51.85	53.04	-	-
Yes	49.71	6.06	56.12	59.53	-	-
Should support parents						
Agree	47.73	6.05	58.80	59.82	38.34	48.31
Does not matter	43.84	5.85	42.93	53.26	35.33	45.92
Do not agree	40.48	5.70	45.10	44.36	27.36	36.97
Parental background						
Marital status						
Both alive	52.34	6.07	51.49	57.02	44.62	54.24
Father alive	36.13	5.73	57.85	58.64	20.68	29.58
Mother alive	35.01	5.82	60.57	57.05	22.58	33.87
Bad health						
No	48.91	6.05	53.03	56.85	40.02	51.22
Yes	41.62	5.84	56.94	57.49	30.65	38.39

Source: 2006 East Asian General Survey.

Table 3. Model Results for Residential, Associative and Supportive Solidarity between Children and Parents, 2006 EASS

	Residential Solidarity: Co-residence		Associative solidarity: Contacts		Supportive solidarity							
					C-P money support		C-P care support		P-C money support		P-C care support	
	Coef.[1]	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Countries or region												
Mainland China (=ref)												
Japan	-0.38 ***	0.10	-0.42 ***	0.05	-1.15 ***	0.09	-0.44 ***	0.09	0.51 ***	0.10	0.52 ***	0.10
Korea	-1.22 ***	0.11	0.33 ***	0.05	0.38 ***	0.09	0.34 ***	0.09	0.58 ***	0.10	0.71 ***	0.10
Taiwan	-0.17	0.10	0.20 ***	0.05	0.38 ***	0.09	0.23 **	0.09	-0.75 ***	0.10	0.26 **	0.10
Distance between parents and children												
Co-residence or neighbor (=ref)												
15 minutes' walk	-	-	-1.20 ***	0.06	-0.17	0.11	-0.52 ***	0.11	-0.32 **	0.11	-1.09 ***	0.11
30-60 minutes' drive	-	-	-1.88 ***	0.06	-0.13	0.10	-0.66 ***	0.10	-0.45 ***	0.10	-1.34 ***	0.10
Farther away	-	-	-2.42 ***	0.05	-0.15	0.08	-1.28 ***	0.08	-0.70 ***	0.09	-1.86 ***	0.09
Control variables												
Respondents' background												
Age (Ages 17-34=ref)												
Ages 35-54	-0.90 ***	0.10	-0.05	0.05	0.02	0.09	-0.17	0.09	-0.12	0.10	-0.22 *	0.09
Ages 55+	-1.12 ***	0.18	-0.18	0.10	-0.01	0.17	-0.25	0.16	-0.30	0.20	-0.72 ***	0.19
Female	-0.10	0.08	-0.29 ***	0.04	-0.30 ***	0.07	0.03	0.06	-0.03	0.07	-0.36 ***	0.07
Never married	2.69 ***	0.08	0.18 **	0.06	-0.17	0.10	0.17	0.10	0.40 ***	0.10	0.20 *	0.10
Single son	0.35 *	0.16	-0.16 *	0.08	-0.34 **	0.13	-0.23	0.13	-0.04	0.14	-0.04	0.15
Number of brothers (None=ref)												
One	-0.13 ***	0.12	-0.13 ***	0.04	0.14	0.08	0.02	0.07	-0.25 ***	0.08	-0.05	0.08
Two	-0.64 ***	0.10	-0.27 ***	0.05	0.13	0.09	0.00	0.09	-0.30 ***	0.10	-0.19 *	0.10
Three+	-0.58 ***	0.12	-0.36 ***	0.06	0.11	0.11	-0.27 *	0.11	-0.46 ***	0.12	-0.23 *	0.12
Education												
<=primary education (=ref)												
Middle school	0.29 **	0.11	0.32 ***	0.06	0.30 **	0.10	0.27 **	0.10	0.30 *	0.13	0.07	0.12
High school	0.24	0.13	0.42 ***	0.07	0.09	0.11	0.56 ***	0.11	0.65 ***	0.14	0.38 **	0.13
>high school	-0.01	0.13	0.54 ***	0.07	0.37 **	0.12	0.33 **	0.12	0.44 **	0.14	0.20	0.13

(Table 3 continues at the next page)

(Table 3 continues)

	Residential Solidarity: Co-residence			Associative solidarity: Contacts			C-P money support			C-P care support			P-C money support			P-C care support		
	Logistic Coef.		SE	OLS Coef.		SE	Coef.		SE	Coef.		SE	Coef.		SE	Coef.		SE
Working status (Full time=ref)																		
Part time	0.22		0.12	0.05		0.06	-0.52	***	0.10	0.13		0.10	0.60	***	0.11	-0.04		0.12
Self-employment	0.25	**	0.10	0.09		0.05	-0.06		0.09	-0.08		0.09	-0.02		0.10	0.06		0.10
Housework	-0.32	*	0.13	0.05		0.06	-0.46	***	0.11	0.07		0.10	0.32	**	0.12	-0.02		0.12
Other	0.60	***	0.10	0.06		0.05	-1.25	***	0.09	-0.02		0.09	0.93	***	0.09	-0.11		0.10
Respondents' attitudes towards the family																		
Desire for coresidence	0.53	***	0.07	0.08	*	0.04	0.17	**	0.06	0.29	***	0.06	-		-	-		-
Should support parents (Agree=ref)																		
Does not matter	-		-	-		-	-0.40	***	0.08	-0.18	*	0.07	-		-	-		-
Do not agree	-		-	-		-	-0.43	***	0.10	-0.57	***	0.10	-		-	-		-
Parental background																		
Age	-0.01		0.01	0.00		0.00	0.02	***	0.00	0.02	***	0.00	-0.03	***	0.01	-0.04	***	0.00
Marital status (both alive=ref)																		
Father alive	0.06		0.14	-0.06		0.07	0.01		0.12	0.07		0.12	-0.46	**	0.14	-0.38	**	0.14
Mother alive	0.24	**	0.08	0.22	***	0.04	0.23	**	0.08	0.15	*	0.07	-0.28	***	0.08	0.01		0.08
Bad health	0.14	*	0.07	-0.08	*	0.04	0.03		0.06	0.03		0.06	-0.16	*	0.07	-0.33	***	0.07
Constant	2.18	***	0.32	7.40	***	0.17	-0.51		0.29	0.04		0.28	2.16	***	0.32	4.18	***	0.32
Log likelihood	-2977			-			-3612			-3733			-3148			-3129		
LR chi2/F test	2042.61			199.56			870.02			557.57			1430.72			1858.92		
Pseudo R2/R2	0.28			0.45			0.11			0.07			0.19			0.23		
N	5789			5789			5789			5789			5789			5789		

Note: ***p<0.001; **p<0.01; *p<0.05.

Note1: Coefficients are logistics ones except for associative solidarity.

Source: 2006 East Asian General Survey.