

Filial Piety and Functional Support: Understanding Intergenerational Solidarity Among Families with Migrated Children in Rural China

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Published online: 2 December 2011
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Abstract Using the intergenerational solidarity theory, the author examined how functional solidarity (intergenerational support regarding to elder care) impacts normative solidarity (filial piety) among families with migrated children in rural China. Data was drawn from a survey of 1,443 elders in three inland migrant-exporting provinces of China. The study revealed the following findings: (1) the elders did not evaluate children's filial piety lower after their migration, which suggests an adjustment on the elderly parents' part regarding the traditional expectations of filial piety. (2) Migrated son's filial piety was indeed evaluated lower than those of daughters, which suggests a continuation of the traditional norms of patrilineality for filial piety. (3) Elderly parents' evaluations of migrated children's filial piety were positively related to migrated children's provision of financial care. (4) Elderly parents who took care of grandchildren had a positive evaluation of filial piety than those who did not. (5) An exchange-based intergenerational support mechanism did not have an impact on rural elderly parents' evaluation of children's filial piety. The author concludes that taking into consideration of the economic and cultural context of rural China, functional support, in the form of intergenerational support and exchange, suggest the continuation as well as changes of filial piety among rural families.

Keywords Normative Solidarity · Functional Solidarity · Rural-Urban Migration · Filial Piety · Patrilineality · Financial Support · Exchange

The theory of intergenerational solidarity possesses six components: (1) associational (2) affectual (3) consensual (4) functional (5) normative and (6) structural (Bengtson and Roberts 1991). Scholars have been interested in exploring how these dimensions are interconnected to each other (Lawrence et al. 1992; Lee, Netzer, & Coward, 1994). The first three components are straightforward. Associational

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solidarity refers to the frequency and amount of contact. Affectual solidarity refers to emotional closeness. The consensual refers to the level of agreements. These three dimensions of intergenerational solidarity were found to be largely independent with minimal correlations with each other (Atkinson et al. 1986).

On the other hand, clear conceptual connections between the normative and the functional dimensions have been consistently identified (Mancini and Blieszner 1989; Morgan et al. 1991; Lee, Netzer, & Coward, 1994). Functional solidarity includes mutual assistance between the young and the old. The exchange of assistance between generations varies over the life course—parents gradually move from the role of givers to the role of receivers. In other words, in their later years, elderly parents receive substantially more help from their children than vice versa. Normative solidarity often refers to “strength of commitment to performance of familial roles and to meeting familial obligations” (Bengtson and Roberts 1991, p.851). Seelbach (1977, 1984) simplified it by referring it as filial responsibility expectations—the extent to which adult children are expected to care for their elderly parents. Studies have been focused on how parents’ expectations for assistance translate into actual assistance from their children. It was found that high filial responsibility expectations may not necessarily yield high return in assistance from the adult children (Lee, Netzer, & Coward, 1994; Seelbach 1984). The goal of this study attempts to examine the other direction of the relationship—how functional solidarity (mutual assistance) may not may not affect normative solidarity (elderly parents’ filial responsibility expectations for their adult children).

More specifically, the authors study how mutual intergenerational support impacts rural elderly parents’ perception of their migrated children’s filial responsibility in China, where the society is undergoing massive social and economic transformations. During the 25 years from the beginning of economic reforms in 1979 to the year of 2010, the percentage of its population living in cities rose from 17.9% to 49.68% (Population Reference Bureau 2011). Tens of millions of rural laborers are working and residing in urban areas and the number keeps increasing every year. The massive migration streaming from rural to urban areas constitutes the largest flow of labor out of agriculture in world history (Taylor 2001; Zhang 1998). Such a massive transformation has a huge impact on rural families when adult children migrate to urban areas and leave their elderly parents behind. As a result, the forms of functional intergenerational support may have changed accordingly due to the lack of physical availability of the adult children. In turn, the changing forms of functional support (how much and in what ways) may have an impact on the perception of normative solidarity among family members, especially the elderly parents who are left behind. This study attempts to shed some lights on this emerging social phenomenon that may completely reshape the power and cultural structure of rural families in China.

Background

Normative Solidarity in Traditional Chinese Family—*Xiao* or Filial Piety

The Chinese proverb, “Having children (especially sons) makes one’s old age secure,” well describes the traditional expectations of Chinese elders toward their

adult children—*Xiao*, or filial piety, which has been identified as the central value of Chinese family relationships. *Xiao*, referred to love, respect, and care for parents and ancestors, was considered the most important virtue to be cultivated in the family. The practice of *xiao* was instilled among children to foster obedience and respect toward their parents; and it was expected to sustain intergenerationally so that sufficient financial, physical, and emotional support to elderly parents from their offspring (Johnson 1983). Filial piety began with service and obedience to parents, continued with total devotion to their welfare, and extended with loyalty to rulers and authorities in the society. *Xiao* was considered the basis of family and social solidarity (Fairbank et al. 1978; Liu 1959; Elvin 1984; Zhan 1996).

Prior to the establishment of P.R. China (PRC) in 1949, *xiao*, has undergone little change for centuries after being established as the principle doctrine for a family-based elder care arrangement. Interestingly, the Chinese Communist Party (CCP), which introduced much social change in China, chose to reinforce and reinvent the traditional practice of filial piety in term of familial elder care. In 1950, the CCP enacted a new marriage law which emphasized the obligations of adult children to provide care for elderly parents. The constitution of 1954 stated that “parents have the duty to rear and educate their minor children, and the adult children have the duty to support and assist their parents.” In 1980, the penal code of 1980 decreed that children can be imprisoned to a maximum of 5 years for neglecting their parents. In 1996, CCP passed *Law For the Protection of Elders’ Right* (China Law Education Website 2011), which officially and legally spelled out adult children’s obligations to respect and take care of their aging parents physically, financially, and emotionally. The law formally regulated adult children’s provision for aging parents in terms of housing, medical care, property protection and so on.

The legal regulation of filial piety by the CCP is closely related to the lack of comprehensive social welfare programs for older adults in rural China. While more than half of elders in rural China are eligible for different levels of pension and health care benefits, only 4.67% of the rural elders live on pensions (Feng & Xiao, 2007; Giles & Mu, 2007). Many rural elders continue to work into their seventies and constantly struggle with financial constraints and poor health care (He et al., 2007). As a result, support for the rural elderly remains the sole responsibility of adult children, under the legal and moral regulation of filial piety.

Filial Piety as a Personal Trait

It is important to note that in both traditional and contemporary Chinese society, as reviewed in the literature, filial piety, or *xiao*, refers to at least two sociological meanings—structural and individual. At the structural level, *xiao* connotes the traditional cultural expectations and legal codification of children’s obedience, respect, and care for parents. At the individual level, *xiao* is often used as an adjective to describe a personal trait or merit. An individual, who is viewed to have successfully met the cultural expectations of *xiao*, is revered and described as *xiao* or filial. However, a person who is not sufficiently *xiao* is often condemned as “unfilial” and is considered to be gravely lacking in virtue. The unfilial person may be sanctioned by family, community, and the state. For this study, *xiao* will be

used both as a noun and an adjective. Therefore, the following two definitions are used:

Xiao (as a noun): a core value of Chinese family and society, which emphasizes children's obedience and extreme respect toward parents and guarantees sufficient financial, physical, and emotional supports to elderly parents from their offspring (Johnson 1983).

Xiao (as an adjective.): a characteristic essential to a virtuous Chinese person, which indicates a general observance of filial piety, including both attitudes and behaviors. A person may be described as *xiao* (being filial) or not *xiao* (being unfilial).

The Patrilineal Tradition of Filial Piety

Traditionally, the practice of *xiao* strictly followed the rules of a patrilineal and patrilocal family arrangement, which favored men over women to an extreme extent. Women were placed at the lowest level of the hierarchy of the family and society. Given the patrilocal tradition, families deemed daughters to be “the water poured out,” as they grew up and married into another family; they could not be depended on for support and care after marriage. Meantime, daughters-in-law were meant to be the major care providers for parents-in-law. A daughter-in-law's service to her parents-in-law was enforced by law in all dynasties (Fairbank et al. 1978; Liu 1959; Elvin 1984; Zhan 1996).

The most significant changes in the practice of filial piety occurred when the CCP included the regulations of both the sons and the daughter's filial obligations for the elderly parents into the series of laws installed during the Mao Era. One of the main principles of these laws by the CCP was to weaken the power of the patriarchal head of the household and promote loyalty to the community ideology. The result is a series of constitutional and legal changes that emphasizes individual civil rights for both men and women. Gender equality was promoted through civil and marriage laws that spelled out men and women's equal right to marriage, property, and family responsibilities. One of the most important legal changes is that sons and daughter are obligated to share equal responsibilities to take care of their birth parents (Miller 2004; Wang 2004). With the lack of welfare and public support for elder care, adult children, both men and women, are expected by law, to care for the elderly parents physically, financially and emotionally (Miller 2004).

Filial Piety Under Transformation

Declining Xiao?

The classical modernization theory suggests that the rapid development of industrialization, urbanization, and westernization may undermine the social foundations of filial piety in Chinese society. The traditional kinship and family network are weakened by a nuclear family structure with a small family size. The spread of public education and new technology among the young people have enabled them to achieve more autonomy and power over their older parents (Ng

1998). Studies in Hong Kong and Taiwan found that young college students tended to report low levels of adherence to filial values and commitments to take care of their elderly parents; whereas older people continued to hold the traditional filial expectations toward their adult children (Harwood et al. 1994; Harwood et al. 1996). As a result, elderly parents tended to hold negative evaluations toward younger people's filial behaviors (Harwood et al. 1994; Harwood et al. 1996; Ho 1996).

Ho (1996) suggested that filial attitudes were more likely to be held by those who were older, male, and less educated. It was also commonly believed that people in rural areas were more likely to hold on to traditional values than people in urban areas in China. Rural elders tended to have higher expectations of filial piety than their urban counterparts (Ho 1994; Ho 1996). In rural China now, adult children's migration result in an increased geographic separation between children and elderly parents. Consequently, adult children may have become more and more unavailable to fulfill filial obligations. Many scholars held serious doubts about migrated children's willingness to take care of their older parents (Li 2001; Yao and Yu 2005). If the rural elderly parents continue to hold the traditional expectations of filial piety, which suggest that adult children should not travel far from their elderly parents, it is very likely that they would evaluate their children's as less filial or unfilial. On the other hand, elderly parents' evaluation of migrated children's filial piety may also imply whether their perceptions of the culture of filial piety is aligned with or has shifted away from the traditional norms.

Broadened Concept of Xiao

A few studies have examined how filial piety has been redefined and reshaped by elders in urban China. Urban elders reconstruct their expectation of filial piety by being considerate of their adult children's unavailability for physical care due to reduced family sizes and the dual demands of work and family obligations. According to an in-depth interview project conducted in Nanjing city, Zhan et al. (2008) found that not only did not the urban elders view placing elders in institutional care as unfilial, but they felt privileged to have their children place them in expensive institutions for professional care. In other words, even though these elders were not provided with direct care by adult child, which was the key element of traditional values of filial piety, they still perceived their children as filial. The authors thus argued that the traditional concept of *xiao* has been broadened. The values of filial piety have not declined or diminished, rather, through market forces, the practice of filial piety has been transformed and reconstructed (Zhan et al. 2008). The emergence of home care workers (*baomu*) and increasing acceptance of institutional care in urban China may also point to an emerging acceptance to a broadened concept of *xiao*.

Studies on Chinese American elders in the United States also shed light on how filial piety could be transformed and redefined within a certain social context. Lan (2002) developed the concept of "a transfer chain of filial care" to describe how the filial duty of elder care was achieved through the mediation of market forces in Chinese American communities in California. She suggested that as more and more women, especially the primary caregivers—daughters-in-law had entered the labor force, they became less available to provide direct care to aging parents. Adult

children therefore, transferred filial piety from kin caregivers to non-family home care workers. By hiring home care workers to help them achieve their filial piety, the middle-class or upper-middle class adult children were able to maintain the cultural ideal of filial piety. The concept of *xiao*, as demonstrated in the modified pattern of homecare of aging parents, was experiencing a process of commodification among Chinese American families, which Lan (2002) referred to as “subcontracting *xiao*.”

Will one of the above broadened concepts of *xiao* also emerge in rural China in this current period of massive rural–urban migration? Compared to their counterparts in urban China and in the United States, rural elders face similar situations—adult children are becoming unavailable for direct care while their capability for financial care are increasing due to rural–urban migration. Will rural elders still view their children as filial with the absence of physical care and potential increase of financial care, according to the intergenerational solidarity theory? Will normative solidarity be changed due to changes in functional solidarity among rural families with migrated adult children?

Who is More Xiao, Son or Daughter?

The inclusion of daughters into the legal responsibilities of elder care have stimulated much interests among scholars in learning the actual practice of filial behaviors among daughters and their elderly parents’ changing perception of the tradition of filial piety. The earlier studies suggest that the inclusion of daughter did not raise women’s status at family or in the public nor change the patrilineal nature of family elder care. Not only did women bring income to the family, but they were also expected to be entirely responsibility for housework. A division of labor by gender in public and private spheres has remained central to the contemporary Chinese society (Stacey 1983). A gender-based pattern of elderly support continued to sustain in rural China. A daughter’s moral obligations for elder care may continue after marriage but her formal obligations to her parents end at the time of marriage. Intergenerational support between parents and sons (and daughters-in-law) is far greater than those between parents and daughters (Greenhalgh 1985; Yang 1996).

However, more recent research found different results, some of which suggest that due to the empowerment of women since the Mao Era, daughters have provided more support to the elderly parents and were perceived by their elderly parents as more filial than their male siblings. Based on data collected in three cities in China in 1999, Xie and Zhu (2009) found that although elderly parents were still much more likely to reside with married sons, they received more financial support from married daughters than married sons. Jacka (2006) and Jin et al. (2006) have found a new pattern of care in rural China: sons are expected to provide fundamental support for their older parents, whereas daughters tend to provide support for their parents through emotional care in daily life, etc. According to an in-depth field research by Shi (2009), rural elderly parents considered their daughters as more filial than sons, as expressed in a popular Chinese saying “A daughter is like a little quilted vest to warm her parents’ hearts.”

In sum, previous research seems to yield mixed results on the gendered practice of filial piety in contemporary Chinese families. Has the patrilineal nature of filial piety been transformed due to the empowerment of women? Will rural–urban

migration, especially daughter's migration, add a new twist into this intriguing question? This study may shed some new lights on this emerging issue.

Functional Solidarity—Intergenerational Exchange Within the Context of Migration

Different from most industrialized countries where financial transfer usually goes from top to bottom (from aging parents to adult children or grandchildren), the direction of financial transfer reverses in most developing countries where financial transfers often flow from adult children to older parents (Lee and Xiao 1998; Zimmer and Kwong 2003). This is largely due to a combination of a lack of formal support for elder care and the influence of the cultural tradition of filial piety. In other words, functional support from the adult children to elderly parents is both need-based and altruism-based (Cong and Silverstein 2008; Silverstein et al. 2006; Sung 2000). However, recent studies have consistently found that functional support in rural Chinese families can also be guided by reciprocity, in other words, an exchange-based model. Elderly parents also provide essential support (mostly in the form of nonfinancial support such as caring for grandchildren) to their adult children which may yield more financial return (Cong and Silverstein 2008; Cong and Silverstein 2011a, b; Lee and Xiao 1998; Silverstein et al. 2006; Zhang, 2005)

The principle of reciprocity is well manifested when examining intergenerational functional support in rural families with migrated children (Cong and Silverstein 2011a, b). The migrant laborers, often referred to as the urban "floating population" are often denied the household registration status (*hukou* system), the consequences of which include restrictions in obtaining adequate housing, low-cost child care, and quality public education for their children. As a result of these barriers, many migrants have to heavily rely on their elderly parents for child care. Silverstein et al. (2006) found in their studies that about 20% of elders took full custody of their grandchildren in rural areas with high migration rates. As suggested by the exchange-based model of intergenerational support, taking care of grandchildren may yield great financial return through two mechanisms—first, the older parents may build expectations for their migrated children to reciprocate; second, providing child care may optimize adult children's earnings which may result in greater financial transfer. Studies have consistently shown that out-migration of adult children improved financial support for the elderly (Li 2001; Du 1997). In China, remittances sent by migrated adult children are reported to be much higher and more stable than in other countries. According to statistics from China's Ministry of Labor and Security, every year, the migrant laborers transfer at least 200–300 million Yuan (roughly 31–46 million US Dollars) back to their impoverished hometown. Such a number is even higher than some provinces' annual revenue. In many rural areas, financial transfer from children has become the main resource of family income (China's Ministry of Labor and Security 2007). The authors attempt to examine whether findings from this study confirm the exchange-based model for functional support in rural families with migrant children. If such an exchange relationship of functional solidarity indeed exists, how does it affect the elderly parents' perception of normative solidarity, namely, filial piety?

Research Question

To specify, for this study, normative solidarity refers to elders' evaluation of migrated child's filial piety, including its patrilineal tradition which may suggest different evaluations toward sons and daughters. Functional solidarity mainly refers to the following four aspects in this paper: (1) children's migration, which implies lack of physical support; (2) provision of financial care; (3) elders taking care of grandchildren; (4) exchange-based functional support. We plan to examine the following research questions relating to normative and functional solidarity: Do the elders evaluate children's filial piety lower after their migration than before their migration? Are migrated sons' filial piety evaluated lower than migrated daughters' filial piety? Are Elderly parents' evaluations of migrated children's filial piety positively related to migrated children's provision of financial care? How does providing care to grandchildren impact the elderly parents' evaluation of migrated children's filial piety? Is there an exchange-based functional support system? If functional solidarity is based upon reciprocity, what is the implication for the tradition of filial piety, which expects adult children to provide out of altruism, rather than exchange?

Data and Methods

Data and Sample

This study utilized a dataset collected by the Institute of Gerontology and Centre for Population and Development Studies at Renming University in Beijing, China. Surveys were conducted in 2004 in three inland migrant-exporting provinces—Hebei, Henan, and Anhui. Study subjects included a total of 1,443 elders. Among them, 498 are from Hebei, 496 from Henan, and 449 from Anhui province. These three provinces are good exporting/emigrating examples because of their interior locations, limited foreign investment, and relatively low economic growth at a national level. Hebei and Henan are two typical provinces that export laborers to Beijing, Tianjin, and other affluent cities in northern China. Anhui is one of the biggest migrant-exporting provinces for Shanghai and cities in Jiangsu province in eastern part of China.

The sample consists of 757 males and 672 females aged 54 to 91. Each elderly respondent had at least one adult child migrated to the urban areas. The sampling strategy of this research is a combination of purposive sampling and multistage random sampling. The first stage of the sampling procedure focused on the county levels by using a purposive sampling strategy. Two remote counties from each province were first chosen. The goal was to thoroughly examine the impact of rural–urban migration, in particular, how lack of physical support on elder care; thus rural counties with longest distance from urban areas were then chosen. Due to their large geographic distance from the city, these remote counties tended to be the poorest ones in the province. The rationale was that peasants who were geographically close to urban areas might be least likely to migrate far whereas those who were far from urban areas would most likely to migrate far from their homes. The second stage of

the sampling procedure focused on the villages by using a simple random sampling strategy. We obtained a sampling frame of villages from the local county government. We then randomly chose four villages from each list provided by the country. The third stage involved surveying all households with elderly people in the 4 villages. We surveyed one elder per household. For households with more than one elder, we randomly chose one of them for the survey. Thus, in total, we surveyed most of the elderly population in 24 villages among 6 counties across 3 provinces.

Although this sample is not a perfect probability sample, we believe that the sampling techniques were thorough and careful, and the results can be generalized to a national level. This is mainly because the proportions of elderly population in the three provinces were extremely close to the average number across the nation. According to a statistical report from Shanghai Research Center on Aging (2011), the proportion of elderly population (65+) in China in 2000 was 6.96%. The proportion of elders 65+ was 6.86% in Hebei, 6.96% in Henan and 7.45% in Anhui.

The data were then organized and transformed based on the research design and theoretical frameworks. In the survey, elders were asked to provide information about each of their children who had migrated to urban areas. The original data treated each elder as a single observation for a total of 1,443 elders. However, because the goal was to learn about how each migrated child provides care (financial and emotional care) to their elderly parents and how parents evaluate each individual child, each migrated child's information (provided by the elderly parent) were pulled out and combined with the elderly parents' information so that the new unit of analysis was created as the migrated child, not the elderly parent. This means that parents with multiple migrated children will appear on the data set multiple times (i.e., once for each child). In the recoded dataset, each parent had an identification number (which is shared with other migrated children in the same family) and a case identification number. The purpose of providing an identification number for each parent was to allow observations to be clustered around the identification number of the parent in the data analysis. This provided more accurate results of the standard errors as we might suspect the behavior of one child is having an impact on the behavior of a sibling from the same parent. All cases under the same identification number shared the same answers for variables with regard to their elderly parent (age, health, education, marital status, living arrangement, etc.) but had different answers to the variables specific to each migrated child (whether give money to parent, parent's evaluation of his/her filial piety, emotional closeness, etc.).

Excluding variables with missing values on independent variables, the operational sample was 2,027 migrated children. We clustered the results on the elders because the cases of elders with more than one migrated children would otherwise be used repetitively. By creating a cluster of children around each elder, we eliminated the potential of falsely over-counting the elderly sample.

Measurement

The primary dependent variable in this study is elderly parents' perception of normative solidarity—evaluation of migrated Child's filial piety. To capture the impact of rural–urban migration on perception, in the survey, the elders were asked “compared to before migration, how has your child's filial piety (each child

individually) changed after migration?” “Negative change, less filial” was coded as -1 . “As filial or unfilial as before” was coded as 0 . “More filial” was coded as 1 . It is important to note that the data did not have actual measurements of children’s levels of filiality before and after their migration to gain an accurate measurement of the changes on children’s filial piety. However, the author contends that the measurement of perception of change is also extremely valuable. As mentioned earlier, *xiao* could also be used as an adjective to describe a Chinese person’s behaviors and attitudes as scripted by the norm of filial piety. A person may be described as *xiao* (being filial) or not *xiao* (being unfilial), or more *xiao* (filial) or less *xiao* (filial). Rural elders’ evaluations of children’s changes of filial attitudes and behaviors greatly reflected the perception of the culture of *xiao* (as a noun) in rural China.

For the measures of functional solidarity, two variables were used to capture the mutuality of intergenerational support. Because of the absence of physical support, support from migrated children to the elderly parents was mainly based upon financial support. It was measured by actual amount of financial care received from each migrated child. The survey asked the elders how much remittance money (in Chinese Yuan) they received from each migrated child. This variable is a continuous variable. Support from the elderly parents to migrated children is mainly measured by whether they took care of grandchildren. It was a dummy variable (0 =no; 1 =yes).

To accurately assess the relationship between normative filial evaluation and intergenerational assistance, other dimensions of family solidarity (structural, associational, affectual, and consensual) potentially correlated with them must be controlled. Measures of structural solidarity include gender (0 =male; 1 =female), elder’s age (a continuous variables in years), elder’s educational level (0 =no formal education; 1 =have formal education), marital status (1 =married; 0 =not married), number of children (a continuous variable), percentage of children migrated (a continuous variable with 1 =100%, all children migrated; and 0 =no children migrated), all children migrated (0 =no; 1 =yes),¹ migrated child’s gender (0 =daughter; 1 =son), migrated child’s marital status (0 =unmarried; 1 =married), migrated child’s age (a continuous variable), length of migration (0 =less than a year; 1 =1–3 years; 2 =3–5 years; 3 =5 to 7 years; 4 =more than 7 years), and geographic distance from elderly parents (1 =close; 2 =far; 3 =very far).

Associational solidarity refers to frequency of contact and amount of interaction. The survey asked the elderly respondents how often the migrated child contacted them after their migration. “no contact” was coded 1 ; “some contact” was coded 2 ;

¹ “Percentage of children migrated” and “all children migrated” had a correlation at $.696$ ($p < .001$). Such a magnitude of correlation between these two variables, through expected, is relatively high. However, these two variables indicate different theoretical meanings when predicting life satisfaction. The former suggests the impact of having children nearby; whereas the latter suggests the impact of having no children left at home. Two separate regression analyses were conducted by alternating these two variables in the regression model. Both variables appeared to have no significant relationships with the elder’s life satisfaction. To gain a deeper understanding of the impact of rural–urban migration, only the regression with variable “all children migrated” will be shown later in the regression analysis; but the descriptive results for both variables will be presented.

“frequent contact” was coded 3. Time visiting home refers to frequencies of visiting home (0=never back; 1=once per year; 2=more than twice per year)

Affectual solidarity refers to emotional closeness. The survey asked the elders how his/her emotional relationships with the migrated children have changed since he/she has migrated. More distant was coded as 1; no difference was coded as 2. Closer was coded as 3.

Consensual solidarity refers to the level of agreements in the household. In the survey, the elders were asked how often this migrated child discussed important life events (such as wedding, buying homes, grandchildren’s education, etc.) with you in 2003. “Rarely discuss” was coded 1; “discuss sometimes” was coded 2; “discuss often” was coded 3.

Health, living arrangement, and income may affect both the parents’ need for assistance and their ability to provide assistance to their children. Health were measured by two variables—Elders’ self-evaluation of their own health on a 5 point scale (1=very bad; 5=excellent) and severe illness (0=no; 1=yes). Living alone (0=no; 1=yes) was used to measure living arrangement. Income was measured by the elderly’s respondents’ answer of whether they had some self-earnings (1=have self-earnings; 0=have self-earnings).

Method of Analyses

The analysis started with a detailed report of the descriptive result of all variables. Two regressions were conducted for data analysis. First, an OLS regression model were used to examine whether functional support and financial support across generations was exchange-based or not. For this regression, the actual amount of financial support from the migrated child was the dependent variable and whether the elderly parent was taking care of grandchildren was the key independent variable.

Then, a logit regression model was conducted to examine the impact of intergenerational functional support on elderly parent’s evaluation of children’s filial piety. Since the dependent variable—evaluation of children’s filial piety—is an ordinal variable, it was appropriate to use an ordered logit regression model. However, a Brant test results demonstrated that five independent variables violate the parallel regression assumption. Violations were found for Gender, Elder’s Age, Education, and Discussion of Important Life Events. In order to allow for the relaxation of the parallel regression assumption with regard to these five variables, a partial generalized ordered logit model was utilized. This model allowed the authors to show the extent of variables impact on the dependent variable between categories when the impact of the independent variable is unequal between categories.

Results

Descriptive Statistics

Table 1 and Table 2 presented descriptive statistics for the dependent variable Elders’ Evaluation of Migrated Children’s Filial Piety and all independent variables. About

Table 1 Descriptive statistics of all variables

Variable	Mean	Std. Dev	Min	Max
Dependent variables				
Evaluation of migrated child's filial piety	.08	.34	-1	1
Independent variables				
Structural solidarity				
Elder's gender (Female)	.49	.50	0	1
Elder's age	67.53	6.04	54	91
Elder's education	.35	.48	0	1
Elder's marital status	.68	.47	0	1
Number of children	4.47	1.53	1	10
Percentage of children migrated	.60	.27	.1	1
All children migrated	.24	.43	0	1
Migrated child's gender (Female)	.18	.39	0	1
Migrated child's age	36.04	7.45	13	66
Migrated child's marital status	.87	.36	0	1
Distance from elderly parents	2.49	.73	1	3
Length of migration	6.85	6.13	.1	42
Functional solidarity				
Actual amount of financial care received from the migrated child	586.39	965.89	0	10,000
Taking care of grandchildren	.16	.37	0	1
Associational solidarity				
Times visiting home in 2003	1.27	.63	0	2
Frequency of contact	2.50	.68	1	3
Affectual solidarity				
Emotional closeness	2.18	.51	1	3
Consensual solidarity				
Discussion of important life events with elderly parents	2.18	.81	1	3
Other factors				
Live alone	.13	.34	0	1
Self-rated health	2.97	1.10	1	5
Income	.54	.50	0	1

2.1% of the migrated children were perceived as less filial than before their migration. The vast majority of the migrated children (87.7%) continued to be considered equally filial as before their migration by their elderly parents. About 10.2% of children were perceived as more filial than before migration. The mean score of evaluation of migrated child's filial piety (measured as -1=negative change, 0=no change, 1=positive change) was .08, which is positive. Thus, based on this descriptive analysis, I conclude that rural elders did not evaluate their children's filial piety lower after their migration than before their migration. Rather, most of the elders reported that migration had no evident effect on their children's filial behavior. A small percentage even perceived an improvement in their children's filial piety after their migration.

Table 2 Percentages of Dependent Variables and Key Independent Variables

Variables	Percent
Evaluation of migrated child's filial piety	
Less filial	2.1%
As filial as before	87.7%
More filial	10.2%
Taking care of grandchildren	
Yes	16%
No	84%
Emotional closeness	
More distant	5.5%
No difference	70.8%
Closer	23.7%
Frequency of contact	
No contact	10.4%
Some contact	29.6%
Frequent contact	60.1%
Discussion of important life events with elderly parents	
Rarely	25.2%
Sometimes	31.4%
Frequently	43.4%

The measures of structural solidarity included demographic information of the elderly parents as well as the migrated children. About 49% of the elderly parents were female. Their average age was 67.53. Only 35% of them had some formal education. 68% were married at the time of the survey. On average, the elderly respondent had 4.47 children. About 60% of their children migrated. Among all elderly respondents, 24% of them had all children migrated. With regard to the demographic background of the children, 18% of the migrated children were female. Their average age was 36.04 at the time of the survey. Their mean distance from their elderly parents was 2.49, which suggest a rather far distance. On average, the migrated children emigrated for 6.85 years.

As far as functional solidarity is concerned, on average, migrated child sent 586.39 Yuan to their elderly parent in 2003. About 16% of the rural elders took care of their grandchildren, child(ren) of migrated child.

For associational solidarity, migrated children's frequency of visiting home and contacting their elderly parents were measured. On average, migrated children visited home 1.27 times in 2003. According to the elderly parents' perception, about 10.4% of the migrated children had no contact; 29.6% contacted their parents sometimes; 60.1% contacted frequently.

Affectual solidarity was measured by elderly parents' perception of emotional closeness with their migrated children. About 5.5% of the migrated children were perceived by their elderly parents as more emotional distant after their migration. The majority of the migrated children (70.8%) were evaluated as having no change in terms of emotional closeness with their elderly parents. About 23.7% of the

migrated children were surprisingly reported by their rural elders as emotionally closer after their migration. The mean of the independent variable emotional closeness was 2.18 on a 3 point scale.

Consensual solidarity was measured by discussion of important life events with elderly parents in 2003. According to Table 2, about 25.2% of the migrated children were reported to rarely discuss important life events. About 31.4% of the migrated children were reported to discuss important life events sometimes with their elderly parents. About 43.4% of the migrated children discussed life events with their parents frequently.

Self-rated health, living arrangement, and income were also included as control variables. On a 5-point scale, the rural elderly parents rated their health an average of 2.97. About 54% of the respondents had no self-earning at all in 2003, which might suggest they were extremely dependent on their children for financial resources. About 13% of the respondents lived alone during the time of the survey in 2003.

OLS Regression Results

Table 3 shows the results from the OLS regression, which examines whether intergenerational support between the elderly parents and migrated child was exchange-based or not. According to results from Model 3 and Model 4, elders who provided care to grandchildren received significantly more financial support from their migrated children than those who did not. Migrated sons also provided

Table 3 Unstandardized ordinary least squares regression of actual amount of financial support received from the migrated child

	Actual amount of financial care received from the migrated child			
	Model 1	Model 2	Model 3	Model 4
Elders' gender (female)	-142.18***	-156.38***	-250.63**	-353.41**
Elders' age	-23.59***	-26.97**	-22.78**	-13.61
Elders' marital Status	-67.26	-36.03	-57.4	-42.35
Number of children	-94.77	-130.14	-129.88	-121.04
Elders' percentage of children migrated	-205.53***	-259.50	-298.53	-693.86**
Self-rated health		42.30	43.90	-45.91
Severe illness		41.08	68.78	162.80
Living alone		-105.69	-37.29	-33.08
Income		-112.29	-150.54	-134.96
Taking care of grandchildren			607.71***	507.205**
Migrated child's gender				-429.12***
Migrated child's age				-20.86*
Migrated child's marital status				67.28
Length of migration				-1.70
Times visiting home in 2003				0.837
Adjusted R ²	.065	.087	.119	.226

significantly more support than migrated daughters. Interestingly, based on coefficients from Model 2, those who were in greater needs (with worse health, living alone, or have no self-earning) did not actually receive more financial support from their migrated children. The OLS results seem to suggest that the functional solidarity within Chinese rural families with migrated children was based upon exchange rather than elderly parents' need.

Ordered Logit Regression Results

Results of the coefficients from the partial generalized order logit regression on rural elder's evaluation of their migrated children's filial piety are presented in Table 4. However, it is more intuitive to interpret partial generalized ordered logit results in terms of predicted probabilities. Predicted probabilities give more nuances to the above results from the partially generalized order regression model. It is important to note that only variables that achieved statistical significance in the partial generalized ordered logit regression are reported for their probabilities. The results of probabilities are presented in Table 5.

As far as structural solidarity is concerned, according to Table 4, elder's gender and age had significant relationships with the dependent variable. It showed that female elderly parents tended to view migrated child as less filial than male elders ($b=-1.35$, $p<.05$). However, such a result is not consistent across all categories of the dependent variable. Older elders also seemed to be more likely than younger elders to hold a negative view of the changes of their migrated children's filial piety ($b=-.11$, $p<.05$). However, such a result is not consistent across all categories of the dependent variable.

Migrated child's gender had a positive relationship with the elderly parent's evaluation of filial piety. Such a result was significant and consistent across all categories of the dependent variables ($b=.63$, $p<.01$). In other words, migrated sons were perceived as less filial after migration. Probabilities across all categories provide more details to further illustrate such a significant relationship. Table 5 indicates that compared to that of sons, the probability of rural elders reporting "less filial" for daughters decreases from 7.8% to 6.4%, an overall decrease of 1.4% and a relative decrease of 17.9%; the probability of rural elders reporting "as filial as before" for their daughters decreased from 91.6% to 90.2%, an overall decrease of 1.4% and a relative decrease of 1.5%; the probability of them reporting "more filial" increased from 7.6% to 9.1%, an overall increase of 1.8% and a relative increase of 24.7%. Based on this result, migrated sons tended to be evaluated lower than migrated daughters.

Emotional closeness also appeared to have a positive relationship with the elder's evaluation of the migrated child's filial piety. Such a result is significant and consistent across all categories of the dependent variable ($b=1.60$, $p<.001$). Apparently, emotional support presented a positive effect on the elders' evaluation of filial piety for the migrated child. Such a result is consistently across all three categories. Table 5 indicates that with one standard deviation of increase in emotional closeness, the probability of rural elders reporting "less filial" for their migrated children decreases from 5% to 2.3%, an overall decrease of 2.7% and a relative decrease of 54%; the probability of rural elders reporting "as filial as before"

Table 4 Coefficients of partial generalized ordered logit regression for evaluation of migrated child's filial piety by elderly parents (*xiao*)

Variable	-1→0	0→1
Constant	2.93	2.27
Structural solidarity		
Elder's gender (Female)	-1.35*	-.26
Elder's age	-.11*	-.01
Elder's education	-2.04	-.10
Elder's marital status	-.02	-.29
Number of children	-.01	-.10
All children migrated	-.03	-.05
Migrated child's gender (Female)	.63**	.63**
Migrated child's age	.03	.01
Migrated child's marital status	.02	.02
Distance from elderly parents	.15	.15
Length of migration	.03	.03
Functional solidarity		
Actual amount of financial care received from the migrated child	.03**	.03**
Taking care of grandchildren	.34*	.34*
Associational solidarity		
Times visiting home in 2003	.16	.16
Frequency of contact	.73	.17
Affectual solidarity		
Emotional closeness	1.60***	1.60***
Consensual solidarity		
Discussion of important life events with elderly parents	.66	.21
Other factors		
Elder's self-rated health	.07	.07
Live alone	.11	.11
Income	.13	.13

$N=1,015$ clusters

Pseudo $R^2=.169$

$\text{Chi}^2=110.12^{***}$

* $<.05$, ** $p<.01$, *** $p<.001$

-1=negative change, less filial; 0=no change; 1=positive change, more filial

for their migrated children decreased from 93.8% to 95%, an overall decrease of 1.2% and a relative decrease of 1.3%; the probability of them reporting “more filial” increased from 1.2% to 2.7%, an overall increase of 1.5% and a relative increase of 125%. Thus, elderly parents' evaluations of migrated children's filial piety are positively related to migrated children's provision of emotional care.

One key independent variable—Actual Amount of Financial Care Received from the Migrated Child—was found to have positive relationship with elder's evaluation

Table 5 Absolute changes and relative changes (in parentheses) in probabilities of evaluation of migrated child's filial piety by elderly parents (*xiao*) for partially generalized ordered logit regression coefficients

Independent Variable	-1	0	1
Elder's gender (Female)	1.1% (275%)	0.8% (0.9%)	-1.9% (-21.3%)
Elder's age	1.0% (50%)	0.1% (0.1%)	-0.1% (-1.5%)
Migrated child's gender (Female)	-1.4% (-17.9%)	-1.41% (-1.5%)	1.81% (24.7%)
Actual amount of financial care received from the migrated child	-10.4% (-79.4%)	5% (6.2%)	5.4% (83.1%)
Taking care of grandchildren	-0.2% (-25.0%)	-2.5% (-2.6%)	2.6% (34.7%)
Emotional closeness	-2.7% (-54%)	1.2% (1.3%)	1.5% (125%)

For continuous and ordinal Variables this represents an increase of 1 standard deviation, for dichotomous variables it represents a one unit change from 0 to 1 with all other variables held equal to their means. Variables that failed to achieve statistical significance in the model are excluded from this table.

-1=negative change, less filial; 0=no change; 1=positive change, more filial

of the migrated child. Such a result is significant and consistent across all categories of the dependent variable as well ($b=.03$, $p<.01$). Table 5 indicates that with one standard deviation of increase in financial care, the probability of rural elders reporting "less filial" for their migrated children decreases from 13.1% to 2.7%, an overall decrease of 10.4% and a relative decrease of 79.4%; the probability of rural elders reporting "as filial as before" for their migrated children increased from 80.4% to 85.4%, an overall increase of 5% and a relative increase of 6.2%; the probability of them reporting "more filial" increased from 6.5% to 11.9%, an overall increase of 5.4% and a relative increase of 83.1%. Thus, elderly parents' evaluations of migrated children's filial piety are positively related to migrated children's financial care.

Whether the elderly parent took care of grandchildren was also founded to have a positive relationship with evaluation of the migrated child's filial piety. Such a result is significant and consistent across all categories of the dependent variable ($b=.34$, $p<.05$). Table 5 indicates that the probability of reporting "less filial" for their migrated children is 0.2% lower among those who took care of grandchildren (0.6%) than those who did not (0.8%), indicating a relative decline of 25% in probabilities; the probability of reporting "as filial as before" for their migrated children is 2.5% lower among those who took care of grandchildren (91.8%) than those who did not (89.3), indicating a relative decrease of only 2.6% in probability; the probability of reporting "more filial" for their migrated children is 2.6% higher among those who took care of grandchildren (7.5%) than those who did not (10.1), indicating a relative increase of 34.7% in probability. To better examine the impact of an exchange-based functional support system on normative solidarity of filial piety, an interaction between children's financial support and elderly parent's caregiving support for grandchildren was later added into the model. However, no statistical significance was found on such an interaction effect, which suggests that having an exchange relationship across generations (trading care for grandchildren for financial support) did not affect elderly parents' evaluation of the latter's filial piety.

Discussion

The authors attempted to understand how functional solidarity (intergenerational support) impact normative solidarity in China where rural families was undergoing massive transformation due to adult children's out-migration to urban areas. Three key questions tackled in this article were: 1. How has migration changed normative solidarity, in this case, rural elder's perception of children's filial piety, including the patrilineal tradition? 2. What is the mechanism behind intergenerational support across generations? Was it altruism-based as suggested by the tradition of filial piety or exchange-based as consistently proved by previous research? 3. How do financial support by migrated children and caring for grandchildren by the elderly parents shape elders' perceptions of migrated child's filial piety? In sum, this study revealed the following results: first, the elders did not evaluate children's filial piety lower after their migration, which suggests an adjustment on the elderly parents' part regarding the traditional expectations of filial piety. However, we also found that migrated son's filial piety was indeed evaluated lower than those of daughters, which suggests a continuation of the traditional norms of patrilineality for filial piety. It is indicated that functional support indeed had an impact on normative solidarity—first, elderly parents' evaluations of migrated children's filial piety were positively related to migrated children's provision of financial care; second, elderly parents who took care of grandchildren gave more positive evaluation of their migrated children's filial piety than those who did not. However, it was found that an exchange-based intergenerational support mechanism did not have an impact on rural elderly parents' evaluation of children's filial piety. Below, detailed analysis of each finding and its implications on family solidarity is provided.

Changing Perceptions of Normative Solidarity?—Migrated But Not Necessary Less Filial

In traditional Chinese society, the norm was that when an elderly parent was still alive, a child should not travel far. As Confucius taught, “Thou shall not travel far while your parents are still alive.” As a matter of fact, a filial child should co-reside with the elderly parent and take care of him/her financially and physically. According to this traditional expectation, in this study, the migrated children would have been condemned by their elderly parents as “less filial” due to their unavailability for an important aspect of functional solidarity—physical care and living far apart from the elderly parents. However, in this study, the majority of the rural elders continued to hold the same evaluation of their children's filial piety before and after they migrated. Migration seemed to have little influence on elderly parents' perceptions of the children's filial behavior. Most of the elders continued to view their children as filial. Why did the rural elderly parents not consider migrated children as less filial when they completely betrayed the traditional expectations of filial piety, which have guided Chinese family and society for thousands of years? With the absence of physical care, why did the elderly parents continue to view their children positively in terms of their filial piety? So, did rural elders narrowed,

broadened, or reinvented the traditional connotations of filial piety as what scholars have found in urban China and the United States (Lan 2002; Zhan et al. 2008). Answers might be found through a thorough examination of functional support across generations.

Relating Functional Solidarity to Normative Solidarity (Filial Piety)

It was found that financial care, how much money the children gave, played a crucial role in determining rural elders' evaluation of their children's filial piety. This result is rather easy to interpret as it confirmed the traditional expectations of filial piety—financial support is one of the three important obligations that an adult child needed to fulfill. However, when looking at the intergenerational functional support from a different direction—provision of care from the elderly parents to the migrated children, we discovered that elderly parents who took care of the grandchildren also gave higher evaluations to their migrated children (the parents of the grandchildren). To understand these findings and their implications to the normative solidarity of filial piety, it is important to take a careful examination of the economic context and a more thorough understanding of the historical cultural context of filial piety where the elderly parents and adults children situated.

It was found in this study that migrated children provided financial care to their elderly parents based on exchange rather than need, which echoes findings from previous literature (Cong and Silverstein 2008; Cong and Silverstein 2011a; Cong and Silverstein 2011b; Silverstein et al. 2006; Zhang 2004). It was not those rural elders with bad health conditions, lived alone, or had no self-earnings that received more financial support. Rather, it was the rural elders who provided grandchild care that received the most amount of financial support. Such an intergenerational exchange mechanism was due to economic necessities by both generations—both the migrated children and the elderly parents struggle with poverty. The young migrated children, often referred to as “floating population” lived at the very bottom of the social stratification in urban China. Studies have shown that rural–urban migration did not fundamentally solve the problem of rural poverty for migrants, even though it did improve rural migrant laborers' living conditions. Having grandparents taking care of grandchildren might be considered the most practical and inexpensive way for child care. An interlocking system of poverty among rural elders and poverty among migrant laborers may have led to an interdependent pattern of intergenerational exchange that mutually helped the survival of both parents and children.

However, such an exchange-based model of intergenerational functional support did not show significant impact on normative solidarity. According to the results from the interaction effect, rural elders did not evaluate differently between the migrated children who were engaged and those who were not involved in an “exchange relationship” with them. This may suggest that although rural elders actively adapted to the economic hardship of both generations by providing care for grandchildren, they might continue to hold the expectation for a non-exchange-based provision of financial support from their migrated adult children. In other words, rural elders in this sample might continue to prefer the traditional ideal of altruistic children giving financial support regardless whether they gave childcare support or not.

To understand the elders' continued preference to the traditional ideal of filial piety, it is also important to have a thorough grasp of normative solidarity in traditional Chinese family. As one of the central values of Chinese culture, filial piety, has strictly defined individuals' positions and roles within the family. However, it is essential to note that besides regulating children's respect and care for the old, the tradition of filial piety also clearly articulates the expectations and obligations for the old to fulfill in order to maintain the harmony and stability of the family (Chou and Chi 1999). Traditionally, older men, as the powerful patriarchs, provided advice, knowledge, and wisdom to the young and educate the younger generations such as grandchildren. Older women, on the other hand, continued to play the affective role by providing some childcare for grandchildren, passing on social/family rituals, and maintaining family networks. Essentially, they served as "kin keepers" for the family (Chou and Chi 1999). Placing these values of filial piety within the context of rural–urban migration, even though migrated children held obligations toward their elderly parents, elderly parents, on the other hand, also held some levels of obligations toward their migrated children for the solidarity of the family. Providing child care has been traditionally considered as a grandparents', especially elderly women's responsibility. Thus, it seemed to be reasonable that rural elderly parents did not devalue their migrated children's filial piety because they had to provide child care support. Or it is possible that rural elders did not perceive their provision of care for grandchildren as an exchange for financial support as a return. They may also prefer it as a manifestation of their contribution to the collectivist solidarity of the entire family.

Compounding analyses of structural constraints faced by both parents and children and consideration of cultural expectations toward elderly parents, we argue that rural elders continued to adhere to the traditional values of filial piety even though the provision of elder care was exchange-based rather than need-based. The rural elders may prefer to believe the financial care from their children as an expression filial altruism rather than a reciprocal return of their grandchild care activities. The rural elders prefer their provision of childcare as an expression of familial normative solidarity. It echoes with the Confucian expectations of filial piety toward the elders to maintain the overall stability and continuation in the family when the children are geographically distant and physically unavailable. In sum, the traditional values of filial piety continue to hold some ground among the rural elderly respondents in this study.

Gendered Expectations of Filial Piety

Lastly, it is also indicated that migrated daughters were more likely to receive positive evaluation of their filial piety than migrated sons, although migrated sons give more financial support to their elderly parents (429.12 RMB) than migrated daughters (average 157.25RMB). This finding of a gender gap in the provision of financial care is different from results from previous research which suggest that in urban areas, daughters actually provided more financial support than sons (Xie and Zhu 2009). However, it echoed Shi's finding (2009) that rural elderly parents considered their daughters as more filial than sons due to a potential shift in the rural elders' emphasis on emotional care from their adult children. The more positive

evaluation of migrated daughters' filial piety may due to their provision of emotional support (affectual solidarity) and the continuation of the patrilineal tradition which holds higher expectations on sons and daughters. However, it is essential to point out that female children started to play a more active role in financial provision for elderly parents.

According to the patrilineal tradition, sons were deemed to be the ones to provide financial, emotional, and physical care on a daily basis for their elderly parents. Daughters did not have any formal obligations for their elderly parents; but for their parents-in-law. Therefore it is reasonable to understand that elderly parents perceived the migrated daughters' financial provision as behaviors of filial piety because these daughters went above and beyond the normative expectations of filial piety for daughter. Such a result may also be related to rural elders' more emphasis on emotional support from their migrated children. It was found that emotional closeness had a significant impact on rural elders' evaluation of migrated children's filial piety. Shi (2009) discovered an increased desire of rural elders for emotional bond with their adult children. This may also explain the better evaluation of filial piety for daughters than sons in this study.

Will the higher evaluation of daughters' filial piety improve daughters' status within rural families? By providing financial support and emotional support for elderly parents, will daughters gain power over other important life events like as more freedom in choosing marital partners, pursuing higher education, etc.? With the increasing number of no-son families as consequence of the one-child policy, will daughters be expected to fulfill all the responsibilities that were defined as sons', in both rural and urban areas? Will the meanings of filial piety go beyond the boundary of gender and apply to both genders? These questions all deserve examinations in future studies.

Conclusion: Continuation and Changes of Filial Piety in Rural Families

This study presented many intriguing findings related to the role of functional solidarity in shaping the changing dynamics of normative solidarity—filial piety, as the massive process of rural–urban migration took place in China. An in-depth analysis of intergenerational solidarity in rural Chinese family was provided by closely examining the important economic, cultural and familial context the elderly parents and migrated children situated. Findings revealed that functional solidarity (mutual assistance) was highly related to normative solidarity (elderly parents' filial responsibility expectations for their adult children), in two ways—continuation and change. As far as continuation is concerned, the exchange-based model of intergenerational support had no impact on rural elders' perception of children's filial piety. Rural elders continued to evaluate children's filial piety according to the latter's provision of financial care as well as their own contribution to familial solidarity. As far as change is concerned, migrated children continued to be evaluated positively by their elderly parents, even when physical care was unavailable, which was a deviation from the traditional expectation of filial norm. The result that migrated daughters were evaluated higher than sons regarding their filial piety suggests both continuation and change—sons continued to be held higher

expectations as indicated by the patrilineal tradition; whereas daughters' provision of financial and emotional care were given recognition by their elderly parents. All of the above findings may lead to a final conclusion—under the social context of massive rural–urban migration, the traditional culture of filial piety was not under erosion. Rather, it was undergoing many crucial transformations.

Limitations

Future research may benefit from overcoming two limitations in this research. First, this study used a cross-sectional dataset. A longitudinal dataset will better capture the changes regarding normative solidarity and functional support before and after children's migration. However, we believe this article offers valuable interpretations to the study of intergenerational solidarity among Chinese families by examining perceptions of changes. Second, normative solidarity (filial piety) was measured by only one single item and functional solidarity was measured by only two items. Future research will benefit greatly by adopting multiple-item measure of both variables to capture the complexity of the theoretical meanings of normative solidarity and functional solidarity within the context of rural China.

Nevertheless, we believe the strengths of this study outweigh the limitations. This study echoes and challenges existing theories and empirical work (in US, other Asian countries, and urban China). In addition, the dataset utilized in this study is unique because it has information on each child (the child's migration status, self-reports of the effect of the child's migration on filial piety, etc.) as well as the elderly parent. This extensive collection of information is rare in social science data from China. The utilization of the proper sampling strategies also makes the results from this article generalizable to China on a national level. Findings from this study not only enrich the current literature on family and elder care in China, they also provide valuable insights for policymakers to provide better welfare support for rural families.

References

- Atkinson, M. P., Kivett, V. R., & Campbell, R. T. (1986). Intergenerational solidarity: an examination of a theoretical model. *Journal of Gerontology*, *41*, 408–416.
- Bengtson, V. L., & Roberts, R. E. L. (1991). Intergenerational solidarity in aging families: an example of formal theory construction. *Journal of Marriage and the Family*, *53*, 856–870.
- China Law Education. (2011) <http://www.chinalawedu.com/falvfagui/fg21752/29797.shtml>, retrieved on April 12, 2011.
- China's Ministry of Labor and Security. (2007) <http://www.molss.gov.cn/index/index.htm>. Retrieved on April 12, 2011.
- Chou, K.L. & Chi, I. (1999) Determinants of life satisfaction in Hong Kong Chinese elderly: A longitudinal study *Ageing & Mental Health* 1999; 3(4): 328–335
- Cong, Z., & Silverstein, M. (2008). Intergenerational time-for-money exchanges in rural China: does reciprocity reduce depressive symptoms of older grandparents? *Research in Human Development*, *5* (1), 6–25.
- Cong, Z., & Silverstein, M. (2011a). Caring for grandchildren and intergenerational support in rural China: a gendered extended family perspective. *Ageing & Society*, *1*–26. doi:10.1017/S0144686X11000420.
- Cong, Z., & Silverstein, M. (2011b). Intergenerational exchange between parents and migrant and nonmigrant sons in rural China. *Journal of Marriage and Family*, *73*, 93–104.

- Du, Y. (1997). *Leaving the villages: An analysis of rural labor migration in China*. Economic and Science Press. (In Chinese.)
- Elvin, M. (1984). Female virtue and the state in China. *Past and Present*, 104, 111–152.
- Fairbank, J. K., Reischauer, E., & Craig, A. (1978). *East Asia: Tradition and transformation*. Boston: Houghton Mifflin.
- Feng, N. & Xiao, N. (2007). Population Aging in China as Reflected by the Results of the 2005 Population Sample Survey. *23rd Population Census Conference: Utilization of the 2000 and 2005 Rounds of Asia-Pacific Censuses*.
- Giles, J. & Mu, R. (2007). Elderly parent health and the migration decisions of adult children: Evidence from Rural China. *Demography*, 44(2), 265–288.
- Greenhalgh, S. (1985). exual stratification: the other side of “growing with equity” in east Asia. *Population and Development Review*, 11, 265–314.
- Harwood, J., Clement, R., Pierson, H., & Fox, S. (1994). Perceived vitality of age groups in California and Hong Kong. *Journal of Multilingual and Multicultural Development*, 13, 311–318.
- Harwood, J., Ota, H., Pierson, H., Gallois, C., Ng, S.H., Lim, T-S., Maher, J., Somera, J., & Ryan, E.B. (1996). Trait rating of three age groups among the Pacific Rim. *Journal of Cross Cultural Gerontology*.
- He, W., Sengupta, M., Zhang, K., & Guo, P. (2007) US Census Bureau, International Population Reports, P95/07-2 *Health and Health Care of the Older Population in Urban and Rural China: 2000*. US Government Printing Office, Washington DC.
- Ho, D. Y.-F. (1994). Filial piety, authoritarian moralism, and cognitive conservatism in Chinese societies. *Genetic, Social, and General Psychology Monographs*, 120, 347–365.
- Ho, D. Y.-F. (1996). Filial piety and its psychological consequences. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 155–165). Hong Kong: Oxford University Press.
- Jacka, T. (2006). *Rural women in urban China: gender, migration, and social change*. New York: M.E. Sharpe, Inc.
- Jin, X., Li, S. and Feldman, M. (2006). The effects of rural-urban migration on intergenerational financial transfer in China: A gender-based perspective. *Population Association of America 2006 Annual Meeting*. Los Angeles.
- Johnson, K. A. (1983). *Women, the family and peasant revolution in China*. Chicago: The University of Chicago Press.
- Lan, P. (2002). Subcontracting filial piety: elder care in ethnic Chinese immigrant families in California. *Journal of Family Issues*, 23(7), 812–835.
- Lawrence, R. H., Bennett, J. M., & Markides, K. S. (1992). Perceived intergenerational solidarity and psychological distress among older Mexican Americans. *Journal of Gerontology: Social Sciences*, 47, S55–S65.
- Lee, G. R., Netzer, J. K., & Coward, R. T. (1994). Filial responsibility expectations and patterns of intergenerational assistance. *Journal of Marriage and the Family*, 56, 559–565.
- Lee, Y., & Xiao, Z. (1998). Children’s support for elderly parents in urban and rural China: results from a national survey. *Journal of Cross-Cultural Gerontology*, 13, 39–62.
- Li, Q. (2001). Rural-urban migrants and their remittance in China. (In Chinese). *Sociology Studies* (4): 64–76.
- Liu, H. W. (1959). *The traditional Chinese clan rules*. New York: J.J. Augustin Incorporate Publisher, Locus Valley.
- Mancini, J. A., & Blieszner, R. (1989). Aging parents and adult children: research themes in intergenerational relations. *Journal of Marriage and the Family*, 51, 275–290.
- Miller, E. T. (2004). Filial daughters, filial sons: Comparisons from rural North China. In C. Ikels (Ed.), *Filial piety: Practice and discourse in contemporary East Asia* (pp. 34–52). Stanford: Stanford University Press.
- Morgan, D. L., Schuster, T. L., & Butler, E. W. (1991). Role reversals in the exchange of the social support. *Journal of Gerontology: Social Sciences*, 46, S278–S287.
- Ng, S. H. (1998). Social psychology in an ageing world: ageism and intergenerational relations. *Asian Journal of Social Psychology*, 1, 99–116.
- Population Reference Bureau. <http://www.prb.org/DataFinder/Geography/Data.aspx?loc=241> Data retrieved on October 20, 2011.
- Seelbach, W. C. (1977). Gender differences in expectations for filial piety. *Gerontologist*, 17, 421–425.
- Seelbach, W. C. (1984). Filial responsibility and the care of aging family members. In W. H. Quinn & G. A. Hughston (Eds.), *Independent aging: Family and social system perspectives* (pp. 92–105). Rockville: Aspen Systems.
- Shanghai Research Center on Aging. http://www.shrca.org.cn/sub02_1_2.html?page=2 . retrieved on April 12, 2011.

- Shi, L. (2009). Little quilted vests to warm parents' hearts: redefining the gendered practice of filial piety in Rural North-eastern China. *China Quarterly*, 198, 348–363.
- Silverstein, M., Cong, Z., & Li, S. (2006). Intergenerational transfers and living arrangements of older people in rural China: consequences for psychological well-being. *Journal of Gerontology: Social Sciences*, 61B, S256–S266.
- Stacey, J. (1983). *Patriarchy and socialist revolution in China*. Berkeley and Los Angeles: University of California Press.
- Sung, K. T. (2000). An Asian perspective on aging east on west: Filial piety and changing families. In Bengtson et al (Eds.), *Aging in East and West: Families, states, and the elderly* (pp. 41–56). Springer Publishing Company
- Taylor, J. E. (2001). Microeconomics of globalization: Evidence from Mexico, China, El Salvador, and the Galapagos Islands. *Report to the Latin America and Caribbean Regional Office of the World Bank*.
- Wang, D. (2004). Ritualistic coresidence and the weakening of filial practice in Rural China. In C. Ikels (Ed.), *Filial piety, practice and discourse in contemporary East Asia* (pp. 16–33). Stanford: Stanford University Press.
- Xie, Y., & Zhu, H. (2009). Do sons or daughters give more money to parents in urban China? *Journal of Marriage and Family*, 71, 174–186.
- Yang, D. L. (1996). *Calamity and reform in China: State, rural society and institutional*. California: Stanford University Press.
- Yao, C. & Yu, H. (2005). The impact of rural-urban migration on rural elder care system. (In Chinese) *Market and Demography*. 11, 2.
- Zhang, H. (2005). Bracing for an uncertain future: A case study of new coping strategies of rural parents under China's birth control policy. *China Journal*, 54, 53–76.
- Zhan, H. J. (1996). Chinese femininity and social control: gender-role socialization and the state. *Journal of Historical Sociology*, 9(3), 269–289.
- Zhan, H. J., Feng, X., & Luo, B. (2008). Is placing elder parents in institutions an abandonment of filial piety? *Research on Aging*, 30(5), 543–571.
- Zhang, X. (1998). Some Legal and Social Issues Concerning the Rural Labor Migration in China. Unpublished paper.
- Zhang, H. (2004). Living alone and the rural elderly: Strategy and agency in Post-Mao Rural China. In C. Ikels (Ed.), *Filial Piety: Practice and discourse in contemporary East Asia* (pp. 63–87). Stanford: Stanford University Press.
- Zimmer, Z., & Kwong, J. (2003). Family size and support of older adults in urban and rural China: current effects and future implication. *Demography*, 40(1), 23–44.

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