FINAL VERSION

BRIEF REPORT

Intergenerational Contact in Chinese Families:

Structural and Cultural Explanations

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While the determinants of intergenerational contact have been well documented in Western countries, we know virtually nothing about the situation in China, a country that has recently experienced unprecedented socio-economic and demographic change. This study analyzed the frequency of 1) visits and 2) other contact (phone, text message etc.) in a representative sample of 16,715 adult child-parent dyads; focusing in particular on the role of migration as well as children's gender, marital status and education level. Adult children generally maintained intensive social relations with parents, although distance was a major barrier to face-to-face contact. Sons visited more often than daughters, but daughters were more likely to stay in touch by other means. Moreover, the strength of parent-daughter ties was strongly dependent on education level. These findings suggest that women's empowerment and the spread of mobile technology have created new opportunities for intergenerational solidarity.

China's recently revised Elderly Rights Law attracted international attention by requiring children to pay 'regular visits' to their aged parents (Hatton, 2013). Merely a few decades ago such a requirement would have been considered preposterous: virtually all parents lived in multi-generational households, and norms of *filial piety* ensured strong lifelong ties with sons in particular (Whyte, 2003). In recent years, however, mass internal migration has increased geographic distance between generations, and rapid socio-economic change has raised concerns about the erosion of traditional Confucian family values. The perceived decline in intergenerational family solidarity and the high prevalence of loneliness and depression among 'left-behind' elders are important issues in the Chinese public and private discourse (Silverstein, Cong, & Li, 2006; Yang & Victor, 2008).

Against this backdrop, a number of studies have addressed the current state of the family support system in China (e.g. Guo, Chi, & Silverstein, 2012; Song, Li, & Feldman, 2012), but none of them focused on social contact specifically. Social contact has a number of advantages as an indicator of the strength of family ties or *intergenerational solidarity* (Bengtson & Roberts, 1991). First, social contact (or associative solidarity) can be assumed to be an important element of parent-child relations throughout the life course, contrary to other indicators such as caregiving, which are generally needs-based. Second, contact is an objective behavioral indicator that can be measured in a relatively reliable way (Steinbach, 2013). Third, frequent social interaction is strongly correlated with the receipt of care and other types of support from children at the time of need (Lye, 1996). The latter is particularly important in the Chinese context, because public assistance for older people is often unavailable or insufficient.

Aside from these considerations, studying intergenerational contact is important because it is of great intrinsic value to families. Particularly in Confucian societies such as

China, where filial piety and family harmony are highly treasured, keeping in touch with adult children is key for the happiness and well-being of older parents (Shi, 2009).

The purpose of this study was therefore to assess the key determinants of intergenerational contact frequency in China. Thus far, intergenerational contact has mainly been studied in Western countries, whose family traditions, cultural norms and socio-economic conditions diverge widely from those observed in China. The following sections therefore shortly describe some key features of Chinese families and develop hypotheses about their implications for intergenerational contact. For more in-depth information on Chinese kinship norms and traditions, see Chu & Yu (Chu & Yu, 2010) or Whyte (2003).

THE DETERMINANTS OF INTERGENERATIONAL CONTACT IN CHINA

In analyzing social contact, it is useful to distinguish between structural and cultural explanations (Kalmijn, 2006). Structural explanations relate to the opportunities and barriers to contact, the most important being geographic proximity. Cultural explanations, on the other hand, refer to the preferences and social norms that are reflected in contact behavior. The present study focuses particularly on migration as a structural determinant of parent-child contact and gender, marriage and education level as cultural explanations.

Structural explanations

China has seen a massive growth in internal migration in recent decades, combined with a decline of the traditional multigenerational household. As a result, most older parents now live alone or with a spouse only (Zhao, Park, et al., 2013). Modernization theory (Goode, 1963) suggests that intergenerational ties inevitably weaken as the physical distance between family members increases. Similar arguments can be heard in the discourse on 'left behind' elders in rural China (see e.g. Hatton, 2013).

In evaluating the impact of migration on intergenerational ties it is important, however, to distinguish between visits and other types of contact. Because of China's sheer size, it can be expected that the number of family visits will reduce substantially with geographic distance. In addition to the cost and difficulty involved in travelling, most Chinese workers can take extended holidays only during the Chinese New Year. Previous research has generally shown, however, that these structural constraints do not preclude the maintenance of strong and supportive ties between migrant children and their parents (Fan & Wang, 2002; Song et al., 2012). Communication technology is likely play an important role in this, because it makes interaction less dependent on physical proximity (Litwak & Kulis, 1987). In recent years, phone access has become almost universal in China: over 90 percent of parents covered in this study had either a mobile phone or a landline connection at home.

Following this reasoning, I expect higher geographic distance to lead to fewer visits (Hypothesis 1a) but also to an increase in other types of contact (Hypothesis 1b) as migrants seek to maintain close ties to their family and location of origin.

Cultural explanations

Preferences for social contact are driven by culture-specific family values and expectations (Kalmijn, 2006). For example, in the Western context, daughters have been found to maintain more intensive contact with parents than sons, a finding that is typically explained by gendered family norms that assign women the role of kin-keepers (Lye, 1996). Chinese family norms on the other hand attach particular importance to parent-son relationships. Chinese parents also spend more time and resources on male children and are more likely to provide grandchild care and other services to their adult sons (Cong & Silverstein, 2012). I therefore expect Chinese parents to have more contact with sons than with daughters (Hypothesis 2a).

This hypothesis must be conditioned in a number of ways however. First, I would expect gender differences to depend on marital status. Chinese families are mostly patrilocal: a married daughter joins her husbands' family, and is expected to follow her husband and parents-in-law (Whyte, 2003). Greenhalgh (1985) famously described Chinese daughters as 'temporary members' of their native families. Although daughters may want to stay in touch with their parents, a married couple has to divide its time and attention between the parents of both the wife and the husband. In the Chinese context, there is a strong presumption that the husband's parents will be in a privileged position. This suggests that marriage has a negative effect on daughter-parent ties (Hypothesis 2b).

Second, it must be considered that traditional norms and practices have been subject to change in China. A number of ethnographic studies have observed an erosion of gendered norms of filial piety and patrilocality and a strengthening of ties between married daughters and their natal parents. The increased importance of parent-daughter relations has been related to smaller family sizes, women's economic empowerment and an increased emphasis on affection and care in parent-child relationships (Judd, 1989; Shi, 2009; Yan, 2003, 2016; Zhang, 2009). This trend is not universal, however, and parents (in-law) continue to have different expectations from daughters and sons (Miller, 2004). I assume that women's ability to maintain close relationships with their natal parents is a function of their education level, for two reasons. First, education can be an emancipating factor, and adherence to traditional patriarchal norms is generally stronger amongst the less educated (Shi, 2009). Second, women with more education have higher earning power and are thus in a better bargaining position vis-à-vis their husband and parents-in-law (Zhang, 2009). For daughters, more education is thus expected to lead to increased contact with parents, while for sons we would expect high levels of contact regardless of their education level (Hypothesis 2c).

In addition to the abovementioned child-level explanations, existing literature suggests that contact is at least partially dependent on the needs and resources of parents. For example, we would expect single parents (most of whom were widowed) and non-coresident parents to have more contact with children, because they are likely to have a higher need for companionship. Moreover, it could be expected that the traditional patterns described above are more prevalent in rural than in urban China. Traditional norms, including son preference, are generally stronger in rural areas (Murphy, Tao, & Lu, 2011). All these factors will be controlled for in the regression analyses, as described below.

METHOD

Data and sample

All analyses were based on data derived from the National Baseline of the China Health and Retirement Longitudinal Study (CHARLS), which was conducted in 2011-2012. CHARLS is part of a family of surveys modeled on the American Health and Retirement Study (HRS), and provides a unique opportunity to study intergenerational contact in a nationally representative sample of Chinese families. It covers individuals aged 45 or above and their spouses, who were asked for information on topics such as family, health status, employment and income. Data were collected using computer-assisted face-to-face interviews, with extensive quality checks and follow-ups. The overall response rate was 80.51 percent (Zhao, Strauss, et al., 2013). CHARLS also provides a detailed demographic profile for each of the respondents' children, as well as information on face-to-face and other types of contact between respondents and each of their non-coresident children.

For the purpose of this study, I used the respondents' non-coresident children as the unit of analysis. The total analytical sample consisted of 16,715 non-coresident adult children,

who were linked to 7,064 parental households (the survey respondents), where a parental household consisted of a couple, a single mother or a single father. Please note that contact with children was measured jointly for coresiding couples rather than for each parent individually. Because parents aged 45 and above were observed, my sample covers almost the entire range of adult child-parent dyads. Daughters were somewhat overrepresented (55.6 percent), which is due to sons' higher propensity to coreside with parents.

A number of covariates contained missing or unknown values, the highest being parents' self-rated living-standard (4.1 percent) and child residence (1.3 percent). I therefore applied multiple imputation using chained equations, following the recommendations by Johnson & Young (2011). This procedure created 10 imputed datasets using an imputation model that included all analytical variables as well as a number of auxiliary variables. Pooled estimates were calculated using Stata's *mi* prefix (StataCorp, 2015). Cases that were missing one or more of the dependent variables (N=1,949 or 10.4 percent of the sample) were not used in the analyses, as recommended by von Hippel (von Hippel, 2007). Most of these cases (N=1,859) were missing because their contact frequency was indicated as "other" and could thus not be established. Sensitivity analysis showed that imputed results were highly similar to complete case analysis.

Measures

[Table 1 about here]

The dependent variables were derived from the response to the questions "How often do you see [child's name]?" and "How often do you have contact with [child's name] either by phone, text message, mail, or email?" in the household questionnaire. Both questions contained nine possible answer categories ranging from *Almost every day* to *Almost never*. Responses to these questions were provided by the family respondent, who could either be the main

respondent, his or her spouse, or another knowledgeable member of the household. Following previous research (e.g. Kalmijn, 2006, 2007) I recoded the nine answer categories for each dependent variable into an approximate number of visits and other contacts per year.

The key independent variables in this study were the child's gender, marital status, education level and geographic distance to parents. *Geographic distance* was defined by the child household's location relative to that of the parents: (1=*in the same community, 2=another community in the same region,* 3=*another region in the same province,* 4=*another province* and 5=*abroad.* Table 1 shows that sons were more likely to live in the same community as their parents, but they were also more likely to live in a different province. Daughters were most likely to live in a different community in the same region (in the case of urban residence, this refers to another neighborhood in the same city). *Marital status* was measured using a binary variable (0=*unmarried*, 1=*married*). Unmarried children could be widowed, divorced or never married. Divorce is still relatively uncommon in China, so most unmarried children were never married. *Child education* consisted of three levels: *up to primary school*, *middle school or higher* and *college or higher.* Compared to sons, daughters were more likely to have no or only basic education (46 versus 33 percent) and less likely to have a college degree (9 versus 13 percent).

In addition to the abovementioned variables, I the regression models included the child's number of siblings and the parent-level variables age bracket (*45-59*, *60-69*, *70-79* and *80 and above*), self-rated living standard (*relatively high*, *average* or *relatively poor*) and marital status (*couple*, *single mother* or *single father*), as well as three dummy variables indicating whether parent(s) had a need for personal care, coresided with one or more of the child's siblings or resided in an urban area. Finally, because gender differences in contact are likely to be more pronounced in rural areas, I included an interaction effect between child gender and urban origin.

Analytical strategy

I followed Jappens and van Bavel (2016) in modelling contact frequency using a Poisson regression model. Poisson models give infrequent contacts more weight than frequent contacts, as recommended by Kalmijn & de Vries (2009). Moreover, compared to the alternative log-linear model, Poisson models are more robust to heteroscedasticity and eliminate the problem of retransforming the predicted means. I used robust standard errors to avoid the Poisson assumption that the mean is equal to the variance (Cameron & Trivedi, 2009) and to account for non-independence of child-parent dyads from the same household.

In addition to the regular Poisson models, I estimated family fixed effect (FFE) Poisson models, using the *xtpoisson* command in Stata 14 (StataCorp, 2015). FFE models analyze contact frequency as a function of features that vary between siblings, such as gender, education level and geographical distance to parents. They provide a more rigorous test of the hypotheses because they control for all observed and non-observed confounders that are shared between siblings, including factors related to upbringing and parent characteristics (Wooldridge, 2008). A downside of FFE models is that they can only consider families with at least two non-coresident children, excluding 14.2 percent of the sample. They also preclude the inclusion of parent-level determinants, which can be of substantive interest. Because the results from the regular and the FFE models were substantively similar, I will mostly refer to the regular models in the discussion of the findings. The results of the FFE models are presented in Supplementary Table 2.

To check the robustness of the findings, I replicated the abovementioned analyses with ordered logit models using the original ordinal scale of the dependent variables. Because results were relatively similar, I decided to present the more easily interpretable continuous contact scale. I also conducted separate models for sons and daughters as well as for rural and urban parents, and included additional control variables: child income, parental education and

presence of grandchildren. Finally, by including children living in the parental household as daily contacts, I checked whether selection into co-residence affected my results. The results (available upon request) did not give reason to modify the conclusions presented in this paper.

RESULTS

Contact patterns

In order to compare contact frequency in China to what has been observed in other countries, I calculated the percentage of children that had at least weekly face-to-face contact to parents, adding coresident children to the weekly contact category. The findings indicate that 56% of Chinese children saw their parent(s) at least weekly. This is similar to what has been observed in the US (55%) and Japan (56%), but lower than Italy (86%) (calculations by author based on the ISSP data (2003)). CHARLS data also suggest that in 2.7% of all child-parent dyads there was (almost) no face-to-face contact, and in 1.1% there was (almost) no contact of any kind, which relatively low from an international perspective.

Descriptive analysis by geographic distance (presented in Supplementary Table 2) shows that most children with infrequent contact lived far away from their parents. Children who lived in a different province typically visited once a year at most (74%). In contrast, about half of the children who lived in the same community saw their parent(s) every day. Most migrant children contacted their parents regularly by other means, however: 75% did so at least on a monthly basis, and 41% at least weekly.

Determinants of contact

[Table 2 about here]

Table 2 presents the results from the Poisson models for visits (Model 1) and other contacts (Model 2). The coefficients have been exponentiated so that they can be interpreted as incidence rate ratios (irr): the rate of change in contact resulting from a unit change in the respective predictor. Models 1A and 2A show the main effect of each variable. Models 1B and 2B add interactions between child gender and marital status, education level and urban origin. These interaction effects show to what extent the effect of marriage, education and urban origin differed between daughters and sons.

As expected, geographic proximity was a strong predictor of the number of visits (Hypotheses 1a). For example, children living in a different community in the same region saw their parents much less often than children that lived in the same community as their parents ($irr = 0.31$, $p<0.001$), and visits declined ever further when children lived in a different region or province. Hypothesis 1b suggested that distant children would compensate for a lack of visits by increasing other types of contact. Table 2 shows that this was not the case: other contacts also declined somewhat with distance, possibly as a result of higher charges for domestic long-distance calls.

Given the cultural preference for sons in China, I had expected sons to have more contact with parents than daughters (Hypothesis 2a). The models without interaction terms show that, controlling for distance and other covariates, daughters visited parents less frequently ($irr = 0.76$, $p<0.001$), but were slightly more likely to contact their parents by other means ($irr = 1.12$, $p<0.001$). These models also show that marriage had an overall positive effect on both types of contact. Hypothesis 2b suggested that marriage would decrease parental contact for daughters, because they divert their time and attention to their family-in-law. Model 1B shows that this was not the case for visits: the positive impact of marriage is roughly the same for daughters and sons. It does appear, however, that marriage

increased other types of contact in parent-son dyads more than in parent-daughter dyads (Model 2B).

A particularly striking result is the interaction between education level and gender for both types of contact. To facilitate their interpretation, these interactions have been plotted in Figure 1 (visits) and Figure 2 (other contact). Figure 1 indicates that gender differences in visiting were strongly dependent on education level. Among children with little formal education, sons paid more visits to parents than daughters. This gender gap was reduced for children that completed middle school and eliminated among college-educated children. Model 2A shows that education had an overall positive effect on other contact, which is probably due to the positive relation between education and the use of electronic devices. The significant interaction term in Model 2B indicates, however, that the effect of college education was stronger for daughters than for sons (also see Figure 2). Overall, the findings show that gender differences in intergenerational contact were moderated by education level. The results therefore support Hypothesis 2c.

[Figure 1 & Figure 2 about here]

Furthermore, it is evident that children with few or no siblings maintained more frequent contact with their parents (or, conversely, received more attention from parents). It did not matter, however, whether parents shared a household with any of the child's siblings.

The parent-level covariates suggest that the number of other contacts was highest for middle-aged parents (aged 45-59), while visits remained relatively constant across parent age cohorts. They also show that single fathers received fewer visits than couples or single mothers. Couples also had higher levels of other contact with their non-coresident children than single parents. This is somewhat surprising, as I had expected that children would compensate for the absence of a spouse. For widowed fathers, the findings might be explained

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by the absence of mothers' kin-keeping activities. I also found that rural parents and comparatively poor parents had significantly less contact with children, both in person and by other means. Finally, the significant interaction term in Model 1B shows that the gender gap in visits was somewhat smaller in urban areas.

Finally, Appendix Table 2 presents the results of the family fixed effect models, which contain the same child-level variables and interactions as the regular Poisson models. The results largely confirm the findings described above. In particular, they show that both visits and other types of contact were negatively related to distance and that gender differences were moderated by education level. This demonstrates that the presented results were not affected by unobserved family-level confounders.

DISCUSSION

Merely a few decades ago, most Chinese families would be well characterized by the classic extended family model: collectivist, living in close proximity and bound together by strongly familialistic and patriarchal norms. Although elements of this traditional family model remain, it has been profoundly challenged by the socio-cultural and demographic changes that took place in post-reform China, notably a shifting intergenerational and intra-marital power balance and the large-scale outmigration of younger age cohorts. Against this backdrop, I analyzed contemporary patterns of social contact between Chinese parents and their adult children, using a recent, nationally representative dataset. Social contact has remained virtually unstudied in the Chinese context, even though its importance, both intrinsically and as an enabling factor for family support, is well known.

The findings show that visits rapidly decreased when children did not live in the same community or region as their parents. Whereas most children who lived in the same village or

neighborhood saw their parents every day, those who lived in a different province normally visited their parents only once a year. A similar contact pattern has been observed for migrant children in Thailand (Knodel, Kespichayawattana, Saengtienchai, & Wiwatwanich, 2010) and likely reflects the costs of travelling as well as the scarcity of holidays for most Chinese workers. Most migrant children regularly stayed in touch with their parents by phone or other electronic means, however, reflecting the importance of the *mobile revolution* in expanding the opportunity structure for intergenerational solidarity.

I also analyzed the cultural determinants of contact, focusing in particular on differences between daughters and sons. Because of the persistent impact of filial piety as well as higher parental investment in sons, I expected sons to have more interaction with parents than daughters. Son-parent dyads indeed displayed higher levels of face-to-face contact, which is a unique feature of Confucian societies. Daughters, however, were more likely to contact their parents by phone and other electronic means, which is in line with what has been observed in the West (Hank, 2007). One could speculate that this difference in the means of contact reflects the gendered nature of intergenerational support in China: while sons provide more practical types of support requiring physical contact, daughters are seen as providers of emotional care, which can be delivered remotely (Shi, 2009).

In line with the traditional Chinese family model, I had expected marriage to reduce contact between daughters and their natal parents. Instead, I observed that marriage increased contact for daughters as well as sons. These findings are consistent with a number of ethnographic studies that have reported a strengthening of the bond between married daughters and their natal parents in post-reform China (Miller, 2004; Shi, 2009; Yan, 2003; Zhang, 2009). The observation that most married women maintained frequent contact with their natal parents reflects the loosening of patriarchal norms and women's increased autonomy vis-à-vis their husbands and parents-in-law: "[in the traditional situation] a married

woman transferred her loyalty from her natal family to her husband's family only because she was pressured by the institutional arrangements of Chinese kinship, by the cultural constraints of traditional ethics, and by her husband" (Yan, 2003, p. 181).

The substantial impact of daughters' education on parental contact suggests that this autonomy is closely linked to women's social status and income-earning opportunities. The findings thus support Shi's assertion that "women's emerging filial practice with their natal parents (…) is derived from women's recently obtained decision-making power in marriage and greater economic leverage" (2009, p. 359). From the parents' perspective, the reduction in family sizes has increased the need to rely on daughters as well as sons for support. Finally, the anthropologist Yunxiang Yan suggests that the strengthening of parent-daughter ties also reflects a shift towards 'intergenerational intimacy': a more egalitarian parent-child relationship that emphasizes emotional bonds rather than filial obligations (2016).

Although the focus of this study was on child-level variation, it can also serve to identify groups of parents with comparatively weaker ties to children. These include widowed parents (fathers in particular), relatively poorer parents and parents living in rural areas. Perhaps unsurprisingly, these groups broadly coincide with the main risk factors for loneliness and depression (Silverstein et al., 2006; Yang & Victor, 2008). These findings are particularly worrisome because they highlight the multifaceted nature of inequality and disadvantage in contemporary China, which is not only expressed in the economic domain but also in the inability to maintain supportive family networks. The finding that urban parents and wealthier parents have more contact with children (controlling for distance) is consistent with what has been observed in Western countries (Lye, 1996).

The size and representativeness of the CHARLS sample ensures that findings can be generalized to Chinese parents aged 45 and above and their adult children. Nevertheless, a number of limitations should be taken into account when interpreting the results. Firstly, it has

been observed that distance is not completely exogenous to contact (Hank, 2007). For example, the fact that sons lived closer to parents may reflect their cultural preference for frequent contact. By controlling for distance, I may thus underestimate the role of cultural factors. Secondly, confirmation and recollection bias may have affected parents' reports on the frequency of interaction with their children. It has been shown, however, that bias in contact estimates is generally low compared to other indicators of intergenerational solidarity (Steinbach, 2013). Finally, it could be argued that a high level of interaction does not necessarily guarantee a satisfying relationship. For example, it has been observed that some Chinese parents derived more emotional value from interaction with daughters, even though they saw them less often than sons (Shi, 2009). Due to data limitations I could not relate contact frequency to the perceived strength of emotional bonds. The interaction between these dimensions constitutes an important area for future research in the Chinese context.

These limitations notwithstanding, this study contributes to our understanding of contemporary Chinese families in a number of ways. First, the findings suggest that concerns about the decline of intergenerational solidarity in a context of mass internal migration may be overstated. The widespread availability of (mobile) phone connections, even in the most remote rural areas, allows parents and their migrant children a degree of connectivity that would have been unimaginable merely one or two decades ago. Second, the classic description of Chinese daughters as temporary members of their natal families (Greenhalgh, 1985) appears outdated. Instead, the findings show that daughters generally maintain intensive social relations with their natal parents, although notable gender differences persist amongst the least educated. Those remaining differences are likely to be reversed as the Chinese population becomes more educated and affluent, with important implications for son preference and old age security. In Taiwan, which has a comparable Confucian legacy but higher education levels, son preference has virtually disappeared already (Lin, 2009).

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Table 1: Descriptive statistics for the dependent and independent variables, by gender

	Daughter M (SD)	Son M (SD)	Total M (SD)	*p*-value
Annual face-to-face contacts (visits)	58 (99)	96 (128)	74 (114)	.000
Annual other contacts	71 (95)	64 (96)	68 (96)	.001
Child is married	92.54	84.78	89.10	.000
Child's highest education				
Up to primary school	46.07	32.98	40.27	
Middle school or higher	44.58	53.64	48.60	.000
College or higher	9.35	13.38	11.14	
Child's distance to parent				
In the same community	23.38	44.68	32.83	
In the same region or city	51.33	22.13	38.38	
In the same province	12.85	13.80	13.27	.000
Different province	12.13	19.08	15.21	
Abroad	0.32	0.31	0.31	
Child's number of siblings				
No siblings	3.01	5.01	3.89	
One sibling	19.14	21.86	20.35	
Two siblings	23.70	24.47	24.04	.000
Three or more siblings	54.15	48.66	51.71	
Parent(s) coreside with sibling	46.89	30.80	39.75	.000
Parent(s) marital status				
Couple	72.71	71.79	72.31	
Single father	7.36	7.61	7.47	.445
Single mother	19.93	20.59	20.22	
Parent(s) age bracket				
45-59	28.23	26.13	27.30	
60-69	34.51	33.06	33.87	
70-79	27.48	30.06	28.62	.000
80 and above	9.78	10.76	10.21	
Any parent has care need	26.53	26.24	26.40	.875
Parent(s) living standard				
(Relatively) high	3.14	2.90	3.03	
Average	47.02	48.35	47.61	.446
(Relatively) poor	49.84	48.75	49.36	
Parent(s) live in urban area	42.97	43.40	43.16	.963
Number of observations	9334	7381	16715	

Note: Weighted percentages and means, unweighted N. *p* values refer to a simple logistic regression of the respective variable on gender.

Table 2: Results from Poisson models for visits and other contact (incidence rate ratios)

	Model 1: Visits		Model 2: Other contact	
	A	B	A	B
Child characteristics:				
Daughter	0.76***	0.62***	1.13***	1.20*
Married	1.17**	1.18**	1.16***	1.24***
Daughter * Married		0.98		0.87*
Education (ref: Up to primary)				
Middle school or higher	1.04	0.97	1.39***	1.34***
College or higher	1.07	0.86*	1.69***c	1.46***
Daughter * Middle school		1.17***		1.05
Daughter * College		1.57***c		1.28***c
Distance (ref: Same community)				
Same region	0.31***	0.32***	0.89***	0.90**
Same province	0.08***c	0.08***c	0.71***c	0.72***c
Different province	0.03***c	0.03***c	0.63***c	0.63***c
Abroad	0.01***c	0.01***c	0.49**	0.48**
Sibsize (ref: no siblings)				
One sibling	0.90*	0.90	0.88**	0.88**
Two siblings	0.73***c	0.74***c	0.71***c	0.71***c
Three or more siblings	0.71***	0.72***	0.59***c	0.59***c
Parent characteristics:				
Coreside with sibling	0.98	0.98	0.99	1.00
Marital status (ref: couple)				
Single father	0.82***	0.82***	0.58***	0.58***
Single mother	0.98c	0.98c	0.79***c	0.79***c
Age bracket (ref: 45-59)				
60-69	1.04	1.04	0.92*c	0.92*
70-79	1.02	1.02	0.76***c	0.76***c
80 and above	1.06	1.05	0.73***	0.73***
Any parent has care need	1.02	1.02	0.93	0.93
Living standard (ref: (rel.) high)				
Average	0.93	0.93	0.72***	0.72***
(Relatively) poor	0.87*c	0.86*c	0.58***c	0.58***c
Urban	1.41***	1.28***	1.48***	1.49***
Daughter * Urban		1.26***		0.98
Observations	16715	16715	16715	16715

Note: Robust standard errors not shown. Other contact includes phone, text message, mail and email. Ref.: Reference category. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. c Statistically different from preceding category at the .05 level (for factor variables with more than two levels).

Online Supplement Table 1: Frequency of contact between parents and their non-coresident adult children, by location of child

	Same community	Same region	Same province	Different province	Abroad
Visits:					
(Almost) never	2.1	2.0	4.6	11.2	30.8
Once a year	8.6	9.6	28.2	62.4	64.6
Several times a year	10.4	25.7	43.6	21.6	1.3
(At least) monthly	12.9	31.8	18.0	3.1	3.3
(At least) weekly	19.4	22.9	3.9	0.5	0.0
Daily	46.6	8.1	1.8	1.2	0.0
Other contact:					
(Almost) never	43.7	20.1	11.7	7.7	15.9
Once a year	1.1	0.8	1.1	1.8	0.0
Several times a year	3.9	6.8	9.4	10.9	6.7
(At least) monthly	14.4	26.8	31.2	38.4	31.6
(At least) weekly	21.0	35.2	36.8	36.5	29.8
Daily	15.9	10.3	9.7	4.8	16.0

Note: Weighted percentages reflecting the highest applicable category. Other contact includes phone, text message, mail and email.

Online Supplement Table 2: Results from family fixed effect (FFE) Poisson models for visits and other contact (incidence rate ratios)

	Model 1: Visits		Model 2: Other contact	
	A	B	A	B
Child characteristics:				
Daughter	0.75***	0.73*	1.05	1.12
Married	1.02	1.06	1.09	1.15*
Daughter * Married		0.90		0.90
Education (ref: up to primary)				
Middle school or higher	0.92*	0.85***	1.13***	1.12*
College or higher	0.85*	0.70***	1.24***c	1.11
Daughter * Middle school		1.21**		1.01
Daughter * College		1.57***c		1.22**c
Distance (ref: Same community)				
Same region	0.28***	0.29***	0.89***	0.90**
Same province	0.08***c	0.08***c	0.70***c	0.70***c
Different province	0.03***c	0.03***c	0.66***	0.66***
Abroad	0.01***c	0.01***c	0.52	0.51
Observations	14244	14244	12256	12256

Note: Robust standard errors not shown. Other contact includes phone, text message, mail and email. Ref.: Reference category. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. c Statistically different from preceding category at the .05 level (for factor variables with more than two levels).