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Spatial Proximity and Contacts between Elderly Parents and Their Adult Children: A European Comparison

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Discussion Papers

510

Karsten Hank*

**Spatial Proximity and Contacts between
Elderly Parents and Their Adult Children:
A European Comparison**

Berlin, September 2005



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Spatial Proximity and Contacts between Elderly Parents and Their Adult Children: A European Comparison

Karsten Hank^a

1 September 2005

1 Abstract

Using data from the 2004 ‘Survey of Health, Ageing and Retirement in Europe’ (SHARE), this paper continues and extends recent cross-national research on the proximity and contacts of elderly parents to their adult children. To begin with, we provide a brief description of the ‘geography of the family’ in ten continental European countries. In the multivariate part of the paper we investigate into the determinants of intergenerational proximity and frequency of contact. Even when microlevel factors are controlled for, the Mediterranean peoples continue to exhibit closer family relations than their northern counterparts. We also find noteworthy systematic differences in the effects of some explanatory variables between ‘weak’ and ‘strong’ family countries. When looking at the contemporary European picture as a whole, though, we find no indication at all for a ‘crisis’ of intergenerational relations.

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2 Introduction

In the next quarter century it is likely that in western societies the proportion of elderly people with at least one child alive will be higher than in any preceding period – despite a substantial decline in fertility and as a result of decreases in mortality (cf. Murphy & Grundy, 2003).¹ Still, demographic, social, and ideational changes in the second half of the past century have triggered increasing concerns about the ability and willingness of the family to support the older generation (e.g., Himes, 1992; Ogawa & Retherford, 1997). From the microperspective of the family, the availability of kin support largely depends on geographic accessibility – which does not necessarily require coresidence – and the strength of the intergenerational bond. While Parsons (1943) maintained that the amount of interaction between children and older parents would be substantially reduced with increasing geographic distance, authors such as Litwak (1960), for example, suggested a significantly weaker association between distance and interaction. Still others argued that kinship interaction will occur despite a negative impact of the distance between parents' and children's households (see DeWit & Frankel, 1988; Smith, 1998: Section II, for reviews of this discussion). Driven by concerns about the isolation of the nuclear family, this topic has found particular attention in the US literature (e.g., Greenwell & Bengtson, 1997; Lawton, Silverstein, & Bengtson, 1994; Wolf, 1994) and – more recently – also in a number of European country studies (see e.g., Lauterbach, 1998, for Germany; Shelton & Grundy, 2000, for Great Britain; Tomassini, Wolf, & Rosina, 2003, for Italy).

¹ Murphy & Grundy (2003) show that the proportion of women aged 50 and over with a living child increased in successive 20th century birth cohorts until those born around 1945. Reflecting higher levels of childlessness among women born after World War II, it will subsequently decrease. However, for women aged 80 and over, the proportion with at least one child alive is suggested to be higher for some decades to come than for women approaching age 80 today.

Drawing on data from the 2004 ‘Survey of Health, Ageing and Retirement in Europe’ (SHARE), this paper continues and extends recent cross-national research on the proximity of parents to their adult children and intergenerational contacts (e.g., Glaser & Tomassini, 2000; Tomassini et al., 2004), providing a snap-shot of Europe’s diversity right after the turn to the 21st century. Previous investigations have shown that individuals from northern European countries are clearly less likely to live close to their parents than those from southern Europe (e.g., Kohli, Künemund, & Lüdicke, 2005). Although this pattern is likely to result from multiple factors (such as cross-country differences in parental needs or socio-economic circumstances), the role of cultural attitudes in maintaining ‘strong’ or ‘weak’ family ties has been stressed in particular (e.g., Höllinger & Haller, 1990; Reher, 1998).

So far, studies on the basis of microdata suffered from the constraint to derive comparable information on parent-child relations from different national data sources, which not only limited the set of variables available for the analysis, but also the sample of countries to be considered. Our analysis, though, is based on a single set of truly comparable microdata for currently ten countries, ranging from Scandinavia to the Mediterranean, which provides rich information on a broad set of relevant individual-level variables (such as family background, socio-economic status, or health). Moreover, while many studies focus either on proximity (e.g., Glaser & Tomassini, 2000; Lin & Rogerson, 1995) or on contacts (e.g., Grundy & Shelton, 2001; Tomassini et al., 2004), the present analysis considers both of these dimensions of intergenerational solidarity (see also Greenwell & Bengtson, 1997; Lawton et al., 1994).

3 Determinants of intergenerational proximity and contacts

This section reviews determinants of intergenerational proximity and contacts that previous studies have found to be important (e.g., Clark & Wolf, 1992; Glaser & Tomassini, 2000; Lin & Rogerson, 1995; Tomassini et al., 2004).

Demographics: The effect of age on the distance between older parents and their children has been shown to be curvilinear. That is, the probability that parents live near a child declines for the ‘young elderly’ (when adult children form their own families; cf. Billari, Philipov, & Baizán, 2001) and increases again at higher ages. Older age is more likely to be associated with greater needs for support, often resulting from declining health (e.g., Silverstein, 1995). This should trigger closer proximity to an adult child, prompt more frequent intergenerational contacts, or both (although parents with health problems may be less able to visit their children). Marital status matters, as widows – especially those in poor health – are found to be more likely than divorced or separated women to live close to a child. Moreover, particularly divorced fathers have fewer contacts to their children than married parents (see Shapiro, 2003, for a recent investigation). Family size also has a significant effect on the likelihood that older individuals live near a child, in the sense that the chance of parents to live close to at least one child increases with the number of (living) children. The same line of argumentation holds for contacts. Last but not least, gender has been recognized as an important factor associated with kin contact and proximity. Generally, mothers exhibit higher levels of contact with children than fathers. Moreover, adult daughters are under greater expectations than sons to live close to their parents and to visit and help them, especially when their mothers are widowed (e.g., Warnes, 1984).

Socio-economic status: Education and income are important mobility factors. Parent’ educational level affects proximity indirectly (through their children’s level of education) and directly, in which more highly educated individuals live further away from their offspring. Explanations for this very clear association mostly refer to greater educational and occupational opportunities for children from families with more resources, whose realization will often be accompanied by longer distance migration (e.g., Lin & Rogerson, 1995). Eventually this results in greater intergenerational separation and less frequent (face-to-face) parent-child contacts. In addition, Tomassini et al. (2004: p. 56) cite evidence that “in some countries friends rather than relatives may be more important in the social networks of the more highly educated”, explaining their fewer contacts with kin.

Several studies have found pronounced social class differences in mobility. In general, parents at the top of the class structure live further from their children than their lower class counterparts (e.g., Greenwell & Bengtson, 1997). In some countries, such as Germany, home-ownership is likely to be closely associated with social status and wealth. In other countries, such as Italy, parental ‘housing assistance’ (either through inheritance of property or financial contributions to purchase a home) “may provide [...] parents with a greater say in where adult children live, and may be one reason why a high proportion of adult children live close to or in the same building as their parents” (Glaser & Tomassini, 2000: p. 732; see also Tomassini et al., 2003).

Migration: While parents and children usually coreside during the earlier phases of the family life cycle, proximity in later life is a consequence of migration decisions, reflecting changing needs and resources of both generations over time (see Lin & Rogerson, 1995, for a detailed life course model of intergenerational mobility). Wolf (1994: p. 184) concluded from US evidence that “[a]mong the young-old, migrants are less likely than nonmigrants to live near a child, but by age 77 those who have moved within the last 5 years are more likely to live near a child than those who have not migrated.” In addition to individual characteristics, structural factors matter. People living in metropolitan areas, for example, have greater employment opportunities, and most adult children can find jobs within the area. Job markets in rural areas, though, are relatively small, and a significant share of younger generation adults may not get jobs locally. “As a result, the pooled distance between parents and adult children is likely to be shorter in urban areas than in rural areas, everything else being equal.” (Lin & Rogerson, 1995: p. 311; see also Shelton & Grundy, 2000) However, Höllinger and Haller (1990: pp. 112–113) suggest that the strength of the association between the degree of urbanization, spatial distance, and frequency of contact with relatives may also vary cross-culturally.

Socio-cultural context: Two major socio-cultural forces play an important role for the structuring of social networks (cf. Höllinger & Haller, 1990). First, family patterns rooted in pre-industrial rural society, which continue to exist until today (Reher, 1998). From a historic perspective, one may distinguish three broad European ‘cultural areas’ (Jordan, 1988): (a)

northwestern and central Europe, where – as a consequence of the specific characteristics of the rural economy – family members lived at growing distances, (b) eastern and southeastern Europe, where complex family structures (including three-generation families) were more common, and (c) southern Europe, where family bonds were especially tight, although extended family patterns were not very common. Reher (1998: p. 203), who does not consider the Slavic language area, draws an even simpler dividing line – between the center and north of Europe on the one hand, and the Mediterranean region on the other hand – to distinguish “regions where traditionally the family group has had priority over the individual, and others where the individual and individual values have had priority over everything else.” This is consistent with differences in cultural values and attitudes regarding, for example, the desirability of intergenerational contact, which are also likely to explain cross-country differences in parent-child proximity (cf. Glaser & Tomassini, 2000).

Secondly, national cultural characteristics (Peabody, 1985), such as a higher or lower orientation towards ‘public’ or ‘private’ values (that is, more vs. less permanent face-to-face contacts with kin and friends), are to be mentioned. While primary group ties (with kin) are closer in the more ‘private’ oriented nations of southern and eastern Europe, social networks with more secondary relations (friends, neighbors) have a higher prevalence in Europe’s more ‘public’ oriented northwestern parts (and even more so in the Anglo-Saxon countries). Nevertheless, “primary-group relations in public-oriented nations have only lost their character as permanent face-to-face relations, but still maintain their function in providing affective and instrumental support; in private-oriented nations, however, primary-group relations still retain the character of permanent face-to face relations.” (Höllinger & Haller, 1990: p. 107; see also Litwak & Szelenyi, 1969)

With regard to the *relationship between distance and contact*, it has often been suggested that the former is an exogenous determinant of the latter. Considering the increasing costs of contact – in terms of time and money – accompanying greater geographic distance, the frequently reported empirical finding of a strong negative correlation between distance and in-person or even telephone contacts was hence to be expected (e.g., Frankel & DeWit,

1989; Smith, 1998: Section III.3). Although the assumption that distance is determined fully independent of contact has not remained undisputed, one may still “assume that, when measured at the same time, distance affects contact but not the reverse” (Greenwell & Bengtson, 1997: p. S19).

4 Method

The data for our study are drawn from the first public release version of the 2004 ‘Survey of Health, Aging and Retirement in Europe’ (SHARE; see <http://www.share-project.org> for more information). SHARE is modeled closely after the U.S. ‘Health and Retirement Study’ (HRS) and it is the first European data set to combine extensive cross-national information on socio-economics status, health, and family relationships of the elderly population (see Börsch-Supan et al., 2005). The data contain information on some 22,000 individuals aged 50 or older from 15,000 households in ten countries (Sweden, Denmark, Germany, the Netherlands, France, Switzerland, Austria, Italy, Spain, and Greece – further data are currently being collected in Belgium and Israel), representing Europe’s economic, social, institutional, and cultural diversity from Scandinavia to the Mediterranean. Probability samples were drawn in each participating country; the average household response rate of the survey is 55 %, ranging from 38 % in Switzerland to 69 % in France (a thorough description of methodological issues is contained in Börsch-Supan & Jürges, 2005).

The *dependent variables* are derived from answers given by the so called ‘family respondent’, who is randomly selected in SHARE. To measure the respondent’s *proximity* to his or her closest living child, the originally nine answer categories from the questionnaire are collapsed into: ‘coresidence’ (i.e., living in the same household or building), ‘distance less than 25 km’ (< 15.5 miles); ‘distance between 25 and 100 km’, and ‘distance more than 100 km’ (> 62.1 miles). These categories correspond fairly well to the 10 and 50 mile thresholds applied by Glaser and Tomassini (2000) and Greenwell and Bengtson (1997), respectively. With regard to *contacts*, SHARE does not distinguish face-to-face, telephone or other modes

of contact.² Our analysis considers only that child that was most frequently contacted during the twelve months preceding the interview. Again, the original set of seven answer categories is collapsed into four groups: ‘daily’, ‘several times a week’, ‘about once a week’, and ‘less than weekly’. Coresident parent-child pairs are excluded from the analysis of contacts, because the respective question is not asked if parent and child live in the same household. One possibility to quantify contacts for these cases would have been to assign daily contacts, for example, to all of them (e.g., Tomassini et al., 2004). The frequency of contact would then have been determined entirely by proximity, though. – If there is more than one child living at the same distance from the respondent or having the same frequency of contacts, the youngest one is selected for inclusion in the analysis.

The *explanatory variables* used in the multivariate analysis cover parents’ characteristics as well as characteristics of the (closest living or most contacted) child. The former include the respondent’s *age* (measured in four categories), *sex*, *partnership status*, binary measures of *health* (self-perceived health status, two or more chronic diseases, symptoms of depression in last month), *education* (three categories based on the International Standard Classification of Educational Degrees), *housing tenure* (owner of dwelling), *migration history* (an indicator of whether the respondent moved into the present town within the last 5 years), and a binary *rural-urban indicator*. The available information on the child covers *current activity* (four categories), *siblings* (single child, youngest sibling, other sibling), *sex*, and *own parenthood* (binary indicator). For the analysis of parent-child contacts, we also use information on the child’s *proximity* to the parents (three distance categories). Table 1 provides descriptive statistics for these variables.

² The ‘contact’ question was only asked for at most four children. When there were more children, the CAPI program selected the four children as follows: sort children in ascending order by minor (0 for children aged 18 and over, 1 otherwise), proximity, and birth year, then pick the first four. When all sorting variables were equal, the CAPI program chose a child randomly. 6.6% of the SHARE ‘family respondents’ reported to have more than four children.

Given the nature of our dependent variables and following previous studies (e.g., Glaser & Tomassini, 2000; Shelton & Grundy, 2000), multinomial logistic models are estimated to assess the association between the covariates and the four categories of proximity and frequency of contact, respectively. Before presenting these multivariate results, we briefly update descriptive findings reported in Kohli et al. (2005), whose analysis was based on an earlier (internal) release of the SHARE data (cf. Table 1).

5 Results

Descriptive findings

The spatial pattern of proximity between older parents and their (nearest living) child exhibits a very clear North-South divide (Figure 1a; see Table A1 in the Appendix for details). While coresidence is the predominant living arrangement in the three Mediterranean countries (reported by 55 - 63% of the respondents), the modal distance in the other SHARE countries is 'less than 25 km', which accounts for as much as 57 - 64% of the parent-child pairs under consideration in Denmark, the Netherlands, and Sweden. The two Scandinavian countries also exhibit the lowest prevalence of coresidence (17%) and the highest proportion of parents living further than 25 km from their nearest child (about 25%, versus less than 10% in Greece, Italy, and Spain). In total, 85% of parents aged 50 or older have at least one child with whom they coreside or who lives within a 25 km radius from their own residence. This share remains fairly stable across all age groups although the role of coresidence decreases substantially in all countries (by about half on average) once the parents reached age 60. The decline in coresidence at older ages (60+) is particularly pronounced in Denmark and Sweden, where – just as in the Netherlands – another peculiarity can be observed. In contrast to the generally small gender differences in rates of coresidence, in these three countries the proportion of fathers living in the same household or building with one of their children is 1.5 to 2.5 times higher than the respective proportion of mothers. This pattern may result from significantly

higher rates of repartnering among males (cf. Gierveld, 2004, for the Netherlands), which should be paralleled by a higher prevalence of younger children in the household.

Turning to the frequency of parent-child contacts (Figure 1b; see Table A2 for details), we observe a similar North-South pattern as exhibited in Figure 1a, with even less heterogeneity between the non-Mediterranean countries, though. 33 - 44% of older parents in the 'northern' SHARE countries report several contacts per week with at least one of their children (modal category). However, in Greece, Italy, and Spain the daily contact rate among non-coresident parent-child pairs is even as high as 57 - 61%. Interestingly, Sweden and the Netherlands show similarly low shares of 'less than weekly' contacts (both 7%) as the Mediterranean countries (4 - 7%). Mothers tend to have more daily contacts with the most contacted child than fathers (42% versus 36%), particularly so in Switzerland. While the frequency of contact generally varies only little with the parent's age, daily contacts are in most countries somewhat less frequently reported by younger respondents (aged 50 - 59) (cf. Figure 1).

Multivariate analysis: Proximity

To begin with, we estimate two multinomial logistic models for ‘proximity’ (see Table 2): Model 1 includes parent and child characteristics only, whereas Model 2 is supplemented by dummy variables representing the three ‘close’ Mediterranean countries on the one hand, and the three ‘distant’ countries Denmark, the Netherlands and Sweden on the other hand (with all other SHARE countries constituting the reference category).

As was already suggested by the descriptive statistics reported above, the probability of parents to live further away from their children is significantly larger for parents in the age groups 60 and over than for parents in their fifties. The *age* coefficients (displayed as relative risk ratios; RRR) are particularly large if coresident parent-child pairs are compared to those living more than 100 km apart. If the respondent is *female*, the relative risk ratios of living ‘less than 25 km’, ‘between 25 and 100 km’, or ‘more than 100 km’ apart are all significantly lower than 1, suggesting that the propensity of mothers to coreside with a child is higher than that of fathers. Whether the respondent lives with a *spouse or partner* seems to matter only when coresident parent-child pairs are compared to those with a ‘long-distance’ (more than 100 km) relation (RRR = 0.83**). A poor self-perceived *health status* and *symptoms of depression* are also associated with a significantly higher probability of parents to coreside with a child. In Model 2, though, the effect of depression becomes statistically insignificant.

The coefficients for parents’ *education* come out as expected. If the respondent obtained a lower degree (compared to the reference category ‘medium’), he or she is more likely to coreside, whereas the probability to live at greater distances from their children is highest for the most highly educated parents. However, the probability of ‘living in the same household or building’ versus ‘living less than 25 km away’ is not significantly affected by education anymore, once we control for the country of residence in Model 2. The outcome of the coefficients for *housing tenure* also varies between the two models. While the results of Model 1 suggest a negative association between homeownership and the probability of parents and children to live apart, the relative risk ratios in Model 2 become insignificant or even signifi-

cantly larger than 1 (RRR = 1.26** for ‘coresidence’ versus ‘distance between 25 and 100 km’). If the parents *migrated* into their present town only recently (i.e., in the past 5 years), the probability of the closest living child to live more than 25 km away increases substantially. Obviously, parents in the SHARE age group tend to move without their children (see Clark & Wolf, 1992, though). If the present residence is located in an *urban area*, the propensity of a parent-child pair to live close by (within a radius of 25 km) – versus coresidence – increases, whereas the probability to live further apart (more than 25 km) remains unaffected.

Looking at *children’s characteristics* shows that a son’s or a daughter’s *current activity* matters greatly for the propensity to coreside with parents. Compared to children who are gainfully employed, all others (those being unemployed or in education, for instance) are significantly more likely to live in their parents’ household or at least in the same building. The relative risk ratios barely differ between ‘less than 25 km’, ‘between 25 and 100 km’, and ‘more than 100 km’, which suggests that the main distinction to be made here is between those not living with their parents (irrespective of distance) and those who coreside, for example as a consequence of economic hardship. Parents of *more than one child* are significantly more likely to have the closest living child coresiding with them than their ‘single-child’ counterparts. This finding appears to be fairly independent of the birth-order of that child (see Konrad, Künemund, Lommerud, & Robledo, 2002, for a detailed discussion of this issue from the children’s perspective³). The probability of an older ‘nearest living’ sibling to reside further than 100 km away, though, is significantly larger than for the youngest one. Coresidence is less likely for *daughters* – who tend to leave the parental home earlier than sons (cf. Billari et al., 2001: Table 2) – and becomes extremely rare if the closest living child has children of his or her own (i.e., if the respondent is a *grandparent*).

The ‘Mediterranean’ *country indicator* in Model 2 takes the expected direction, clearly showing that parents and children in Greece, Italy, and Spain are much more likely to core-

³ The authors find that the residential location of second-born children depends on the first-born child’s residential choice, where the latter can shift some of the (potential) burden of providing care for the parents to the former.

side than families in the reference group of countries (Austria, Germany, France, and Switzerland). In the ‘Nordic’ populations (including the Dutch), on the other hand, we find significantly higher probabilities of living apart than elsewhere. Again, the relative risk ratios suggest that the main distinction to be made is between those not living with their children (irrespective of distance) and those who coreside (cf. Table 2).

Reviewing the sum of the findings presented above leads to a couple of immediate further questions. *First*, how do our results change, if we exclude coresident children from our definition of the ‘closest living child’? Although the fit of the models we estimated for this alternative sample turns out to be somewhat worse than for the initial sample, the direction of the coefficients is largely confirmed (see Table A3 for detailed results). Parents aged 70 or over are more likely to live further apart from their children than younger ones, so do the more highly educated and those who migrated within the last 5 years. The association between homeownership and distance is now very clear, indicating a significantly lower probability of owners to live close (i.e., within a radius of 25 km) to their children. Urbanites, however, exhibit a higher propensity to live close by. If coresident parent-child pairs are excluded, employed and unemployed children do not differ significantly anymore with regard to proximity. Those who are in education still, however, are more likely than their counterparts in the reference category to live further than 25 km (RRR = 1.91**) or even further than 100 km (RRR = 2.47**) from their parents. While having own children decreases the probability of coresidence (see above), it increases the probability of the generations to live in each other’s vicinity, which is also the case, if the closest living child has siblings. Last but not least, the coefficients of our regional indicators are much weaker than in the initial model, but continue to point to spatially closer intergenerational bonds in southern Europe and to more distant parent-child relations in the north.

Second, to investigate into possible regional differences in the strength and direction of the explanatory variables, we also ran separate regressions for each of the three country groups – ‘South’, ‘Central’, and ‘North’ – described above (see Table A4a; results of χ^2 -Tests of equality between the coefficients are presented in Table A4b). The association between

parents' age and proximity is significantly stronger in Denmark, the Netherlands, and Sweden than elsewhere. The same holds for the negative relationship between coresidence and low parental education, which is not statistically significant in the Mediterranean region. In the northern countries, though, there is no significant difference between mothers and fathers in the propensity to coreside, which was suggested by the descriptive analysis, whereas mothers living in the Mediterranean and 'central' countries are more likely to live in the same household or building with one of their children. While a poor self-perceived health status tends to reduce the probability to live apart (no matter at which distance) in Austria, France, Germany, and Switzerland, this is not the case in southern and northern Europe. However, the respective relative risk ratios are not always significantly different from each other (Table A4b). The 'central' region is also special with regard to the role of living in an urban area, which is unambiguously associated with greater distances between parent-child pairs. Particularly in the southern SHARE countries (and to some degree also in the north), however, an urban residence increases the probability of living up to 25 km away, but decreases the probability of living further away (e.g., $RRR = 0.50^{**}$ for 'coresidence' versus 'distance between 25 and 100 km'). Systematic differences are also found with regard to children's current activity, specifically if they are in education still, which increases the younger generation's likelihood of living at a distance of 25 km or more from their parents in northern and central Europe, but not so in the south. If grandchildren are present, the propensity to live apart (especially within a range of 25 km) is very high everywhere. However, the magnitude of the relative risk ratios is much higher in the Scandinavian countries and the Netherlands than in the Mediterranean, where the size of the coefficients is still significantly higher than in Austria, France, Germany, or Switzerland, though.

Multivariate analysis: Contacts

For the analysis of the frequency of contacts between (non-coresident) parent-child pairs in SHARE, we follow the same strategy as in our investigation of the determinants of proximity,

that is, we begin with a pooled sample (see Table 3) and eventually estimate separate models for the two groups of countries identified in Figure 1b (see Table A5).

Considering first demographic characteristics of the respondents, we notice that parents' *age* does not have a systematic effect on contacts, whereas *mothers* as well as those living with a *spouse or partner* are less likely to have only 'rare' contacts – that is, once a week or less often – to their (most contacted) child. Poor *health* tends to increase the likelihood of daily contacts, but not always consistently so. Model 1 suggests that parents with lower educational degrees are the most likely to have daily contacts (which is less clear from Model 2, controlling for region), whereas those with a higher than medium *education* have a greater propensity to experience fewer – but still weekly – contacts with at least one child. Fewer contacts are also more likely among parents who have recently *migrated* (e.g., RRR = 1.60** for 'daily contact' versus 'less than weekly'). *Homeownership* and an *urban residence*, on the other hand, are associated with a significantly higher probability of having daily contacts (versus less than multiple contacts per week).

Gainfully *employed children* are generally less likely to experience contacts with their parents on a daily basis than, for example, their unemployed counterparts or (to a slightly lesser extent) students. Similarly, compared to larger families, parents of a *single child* exhibit a higher propensity to have daily contacts with their (only) child. While *grandparenthood* leaves the frequency of contact unaffected, the most contacted child's sex does not: *daughters* are clearly more likely to contact (or to be contacted by) their parents (e.g., RRR = 0.49** for 'daily contact' versus 'less than weekly').

As expected, *geographical distance* is very strongly correlated with the frequency of parent-child contacts. Particularly the probability of having 'less than weekly' contacts increases drastically, if the distance between parent and child exceeds 25 km. (RRR = 7.39**) or is even greater than 100 km (RRR = 11.22**). Also significant is the dummy variable indicating residence in the *Mediterranean* area. Confirming our descriptive findings, the multivariate analysis shows that – even when controlling for individual characteristics – Greek,

Italian, and Spanish parent-child pairs are clearly more likely to have daily contacts than those living elsewhere in Europe.

When comparing the estimates of the separate regressions for the Mediterranean countries and the non-Mediterranean countries, respectively (see Table A5), only two variables appear to have a significantly different effect in these two regions. First, while southern European parents with lower education are more likely than the medium educated to be in touch with their children ‘about once a week’ or less often (versus having daily contacts), the reverse is true for their northern counterparts. Second, the negative relationship between living apart more than 100 km and the frequency of contacts is significantly stronger in Greece, Italy, and Spain than elsewhere (see the discussion in the next section) (cf. Table 3).

6 Discussion

Our analysis of spatial proximity and contacts between elderly parents and their adult children generally confirms the results of previous studies, but for a larger sample of ten European countries and on the basis of a single set of cross-nationally comparable microdata. A general impression that can be derived from the study of the SHARE data is that – independent of most of parents’ and children’s individual characteristics considered in the analysis – the Mediterranean peoples continue to behave differently from their counterparts living further north when making decisions about proximity and contacts, thereby reinforcing longstanding ‘familistic’ socio-cultural patterns of intergenerational relations (e.g., Höllinger & Haller, 1990; Reher, 1998). We still find some noteworthy systematic differences in the effects of some explanatory variables between those European regions that are usually identified as ‘weak’ or ‘strong’ family countries.

First, the negative association between geographic distance (> 100 km) and frequency of contact is more pronounced in the Mediterranean countries than in Scandinavia or ‘central’ countries such as France or Germany. An explanation for this result might be that living far

away from each other in the south is correlated with a poorer quality of the parent-child relation, whereas in the northern European countries living at greater distances is a more common arrangement, which is mostly unrelated to affection and thus has a somewhat weaker impact on contacts between older parents and their adult children (see Lawton et al., 1994, for a general discussion).

Second, the negative association between parents' age and probability of parent-child pairs to coreside is significantly stronger in Denmark, the Netherlands, and Sweden than elsewhere. This is consistent with comparative research on the transition to adulthood which shows that the "Nordic countries are the most age-graded, and there seems to be little space for individual choice in the age at leaving home. In contrast, in 'more traditional' Southern European countries leaving home appears to much more subject to preferences and constraints." (Billari et al., 2001: p. 354) Studies suggest that institutional settings, such as a country's labor market or educational system (e.g., Aassve, Billari, Mazzuco, & Ongaro, 2002), interact with social norms about age-appropriate behavior (cf. Settersten & Hägestad, 1996) in shaping the transition out of the parental home. In line with our finding that the propensity of parents and children who are in education still to live at a distance of 25 km or more increases in northern and central Europe, but not so in the south, Billari et al. (2001: pp. 348-349), for example, show that leaving home in order to continue education in Nordic countries is pursued by a large majority of young adults.

Although we acknowledge that the frequently applied rough north-south divide (which is sometimes supplemented by a group of 'in-between' countries such as France or Germany), tends to simplify a heterogeneous European experience (Reher, 1998: p. 212), we also think that a broader look at the commonalities rather than the idiosyncrasies of the countries in our study provides useful insights. When looking at the European picture as a whole, we find no indication at all for a 'crisis' of intergenerational relations right after the turn to the 21st century. 85% of parents aged 50 or older have at least one child with whom they coreside or who lives within a 25 km radius from their own residence and Sweden as well as the Netherlands show similarly low shares of 'less than weekly' parent-child contacts than, for example, Spain

(all 7%). However, our study is limited to only two of the six dimensions of intergenerational solidarity put forward by Bengtson (2001: p. 8), namely ‘structural solidarity’ (i.e., geographic proximity) and ‘associational solidarity’ (i.e., frequency of contact). Unfortunately, SHARE does not allow us to consider the ‘affectual’, ‘consensual’, or ‘normative’ dimensions of solidarity, but recent analyses of family support and transfers (Attias-Donfut, Ogg, & Wolf, 2005a, 2005b) draw a picture of ‘functional solidarity’ which supports an optimistic perspective on the future of intergenerational bonds in Europe (see also Tomassini et al., 2004).

Future studies should ideally address a number of further issues to turn the sketch presented here into a full painting of the cross-national diversity of intergenerational relationships. For example, the SHARE ‘one-shot’ question does not allow to analyze various modes of parent-child contact (like face-to-face versus telephone) and their differential connection to distance (cf. Frankel & DeWit, 1989). Related to this and as already mentioned above, additional information on the perceived quality of the relationship between parents and children would also be highly desirable (e.g., Kaufman & Uhlenberg, 1998). And finally, longitudinal SHARE data will allow a better understanding of relevant developmental factors than can possibly be achieved with the currently available cross-sectional information (e.g., Lin & Rogerson, 1995). Clearly, the ‘longer years of shared lives across generations’ (Bengtson, 2001) not only bring about manifold opportunities and challenges for the family – but also for current and future generations of social scientists.

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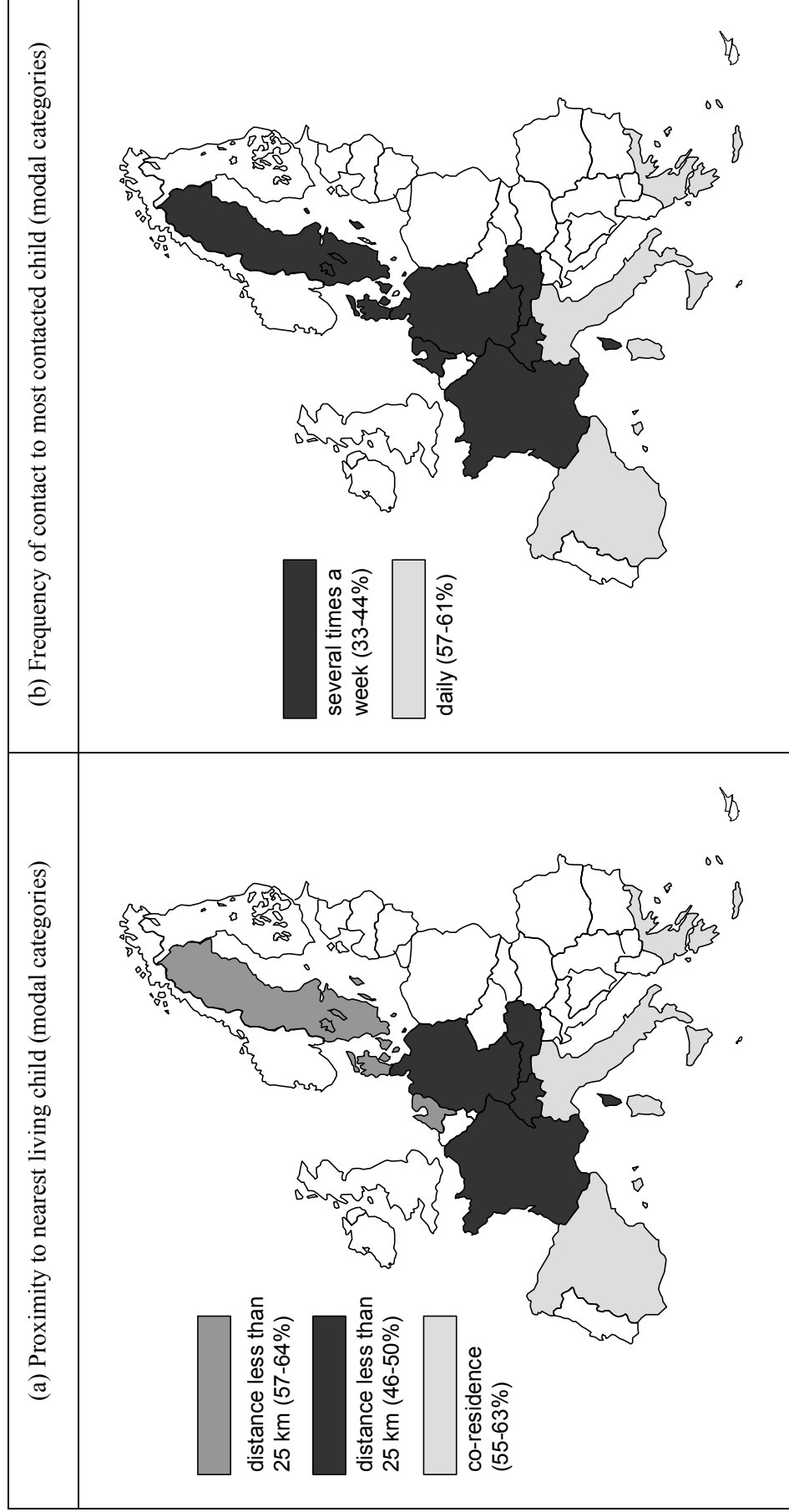
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9 Supplement
Figures & Tables

Figure 1: Spatial pattern of proximity and contacts between parents and their children in Europe



Source: SHARE 2004 (Release 1), author's representation. See Tables A1 and A2 for details.

Table 1: Pooled descriptive sample statistics, all countries (unweighted percentages)

	Proximity: Closest living child	Contact: most contacted child
<i>Demographics & Health</i>		
Age 50-59	36	31
Age 60-69	32	34
Age 70-79	22	24
Age 80+	10	11
Female respondent	56	56
Living with spouse/partner	69	67
Less than good health	39	40
Chronic diseases (2+)	42	44
Depression	25	25
<i>Education & SES</i>		
Low education	53	53
Medium education	30	29
High education	17	17
Owner of dwelling	63	61
<i>Residence</i>		
Migrated in past 5 years	4	4
Urban area	49	49
<i>Child characteristics</i>		
Working	67	76
Unemployed	5	4
In education	10	6
Other activity	17	15
Single child	20	17
Youngest sibling	54	44
Other than youngest sibling	26	39
Daughter	49	56
Own children	53	63
Distance less than 25 km	--	68
Distance 25 to 100 km	--	15
Distance more than 100 km	--	17
<i>N</i>	<i>13,641</i>	<i>11,643</i>

Source: SHARE 2004 (Release 1), author's calculations.

Table 2: Multinomial logistic regression results for dependent variable 'proximity' – relative risk ratios (standard errors in parentheses), N = 13,630

	<i>Model 1: Coresidence vs. ...</i>			<i>Model 2: Coresidence vs. ...</i>		
	... less than 25 km	... between 25 and 100 km	... more than 100 km	... less than 25 km	... between 25 and 100 km	... more than 100 km
<i>Demographics^a</i>						
Age 60-69	1.59** (8.23)	1.50** (4.35)	2.15** (7.86)	1.88** (10.38)	1.84** (6.27)	2.47** (9.07)
Age 70-79	1.50** (5.83)	1.81** (5.34)	2.12** (6.22)	1.82** (8.03)	2.30** (7.19)	2.49** (7.38)
Age 80+	1.28** (2.73)	1.73** (3.75)	2.33** (5.55)	1.47** (3.98)	2.01** (4.64)	2.59** (6.15)
Female respondent	0.85** (3.39)	0.94 (0.79)	0.71** (4.28)	0.83** (3.59)	0.91 (1.18)	0.69** (4.50)
Living with partner	1.05 (0.83)	0.97 (0.32)	0.83* (2.13)	1.04 (0.73)	0.96 (0.48)	0.83* (2.05)
Less than good health	0.76** (5.17)	0.80** (2.65)	0.73** (3.55)	0.81** (3.77)	0.88 (1.45)	0.77** (2.97)
Chronic diseases (2+)	1.10 (1.91)	0.97 (0.34)	0.91 (1.16)	1.14* (2.49)	1.01 (0.10)	0.93 (0.79)
Depression	0.84** (3.10)	0.73** (3.40)	0.99 (0.11)	1.00 (0.03)	0.90 (1.07)	1.14 (1.41)
<i>Education & SES^a</i>						
Low education	0.68** (7.36)	0.46** (9.07)	0.42** (9.57)	0.93 (1.27)	0.72** (3.66)	0.58** (5.60)
High education	1.20* (2.54)	1.61** (4.77)	1.96** (6.80)	1.12 (1.57)	1.49** (3.85)	1.85** (6.09)
Owner of dwelling	0.66** (8.93)	0.80** (2.92)	0.84* (2.21)	0.95 (1.08)	1.26** (2.91)	1.17 (1.84)
<i>Residence</i>						
Migrated, past 5 years	1.68** (4.19)	3.24** (7.53)	3.57** (8.24)	1.51** (3.13)	2.83** (6.34)	3.26** (7.41)
Urban area	1.52** (9.41)	0.95 (0.66)	1.08 (0.98)	1.47** (7.98)	0.92 (1.16)	1.07 (0.89)
<i>Child characteristics^a</i>						
Unemployed	0.35** (11.43)	0.32** (6.36)	0.33** (5.81)	0.39** (9.44)	0.37** (5.30)	0.37** (5.09)
In education	0.24** (16.81)	0.42** (6.69)	0.59** (4.27)	0.19** (18.13)	0.33** (8.29)	0.50** (5.60)
Other activity	0.52** (9.28)	0.40** (7.28)	0.55** (4.85)	0.61** (6.67)	0.50** (5.33)	0.63** (3.63)
Youngest sibling	0.82** (3.28)	0.54** (7.06)	0.37** (11.89)	0.73** (4.99)	0.46** (8.58)	0.34** (12.67)
Other than youngest sibling	1.10 (1.35)	0.48** (7.05)	0.14** (14.95)	0.88 (1.77)	0.36** (9.43)	0.12** (16.16)
Daughter	1.28** (5.37)	1.41** (4.79)	1.33** (3.76)	1.33** (5.99)	1.49** (5.32)	1.39** (4.24)
Own children	5.03** (30.64)	3.80** (15.79)	3.43** (13.78)	4.67** (27.50)	3.44** (14.18)	3.21** (12.81)
<i>Country group^a</i>						
Greece, Italy, Spain	--	--	--	0.36** (16.72)	0.18** (13.99)	0.35** (9.79)
Denmark, Netherlands, Sweden	--	--	--	3.19** (18.05)	3.84** (15.08)	2.67** (10.45)
<i>Pseudo-R²</i>		0.16			0.21	

^a Reference categories: age 50-59; medium education; child – working; single child; all other countries.

Significance: * p < .05; ** p < .01.

Source: SHARE 2004 (Release 1), author's calculations.

Table 3: Multinomial logistic regression results for dependent variable 'frequency of contact', core-sident parent-child pairs excluded – relative risk ratios (standard errors in parentheses), N = 11,632

	<i>Model 1: Daily contact vs. ...</i>			<i>Model 2: Daily contact vs. ...</i>		
	<i>... several times a week</i>	<i>... about once a week</i>	<i>... less than weekly</i>	<i>... several times a week</i>	<i>... about once a week</i>	<i>... less than weekly</i>
<i>Demographics^a</i>						
Age 60-69	0.94 (0.99)	1.06 (0.71)	0.88 (1.32)	0.97 (0.60)	1.08 (0.95)	0.90 (1.12)
Age 70-79	1.01 (0.22)	1.41** (3.80)	0.99 (0.10)	1.04 (0.61)	1.45** (4.05)	1.02 (0.16)
Age 80+	1.07 (0.78)	1.22 (1.69)	0.67** (2.81)	1.08 (0.89)	1.22 (1.64)	0.67** (2.75)
Female respondent	0.95 (0.98)	0.76** (4.31)	0.45** (9.79)	0.94 (1.25)	0.74** (4.58)	0.45** (9.91)
Living with partner	0.99 (0.24)	0.68** (5.48)	0.42** (10.23)	1.00 (0.00)	0.69** (5.26)	0.42** (10.01)
Less than good health	0.83** (3.57)	0.88 (1.80)	1.28** (2.90)	0.87** (2.59)	0.94 (0.90)	1.35** (3.45)
Chronic diseases (2+)	0.90* (2.10)	0.79** (3.56)	0.75** (3.45)	0.93 (1.53)	0.82** (2.98)	0.77** (3.05)
Depression	0.87* (2.53)	0.98 (0.29)	1.17 (1.71)	0.96 (0.80)	1.11 (1.35)	1.30** (2.87)
<i>Education & SES^a</i>						
Low education	0.68** (7.33)	0.55** (8.53)	0.62** (5.41)	0.90 (1.89)	0.80** (3.09)	0.87 (1.54)
High education	1.24** (3.05)	1.31** (3.08)	0.96 (0.39)	1.23** (2.87)	1.29** (2.84)	0.94 (0.55)
Owner of dwelling	0.77** (5.58)	0.62** (7.76)	0.45** (10.14)	0.95 (1.05)	0.81** (3.21)	0.58** (6.69)
<i>Residence</i>						
Migrated, past 5 years	1.06 (0.46)	1.42* (2.51)	1.60** (3.01)	1.00 (0.00)	1.33* (2.06)	1.52** (2.66)
Urban area	1.02 (0.47)	0.89* (2.02)	0.78** (3.28)	1.06 (1.29)	0.93 (1.14)	0.81** (2.70)
<i>Child characteristics^a</i>						
Unemployed	0.72** (2.86)	0.59** (3.22)	0.97 (0.16)	0.73** (2.75)	0.60** (3.14)	0.98 (0.12)
In education	0.94 (0.61)	0.79 (1.69)	0.69* (2.12)	0.89 (1.05)	0.75* (2.07)	0.66* (2.38)
Other activity	0.75** (4.22)	0.63** (4.58)	1.13 (1.06)	0.84* (2.57)	0.72** (3.19)	1.26* (2.04)
Youngest sibling	0.86* (2.31)	0.67** (4.82)	0.52** (6.64)	0.90 (1.61)	0.71** (3.98)	0.55** (5.92)
Other than youngest sibling	0.91 (1.26)	0.72** (3.30)	0.57** (4.56)	0.89 (1.45)	0.71** (3.37)	0.57** (4.59)
Daughter	0.80** (4.95)	0.60** (8.46)	0.49** (9.27)	0.76** (5.79)	0.56** (9.30)	0.46** (9.86)
Own children	1.07 (1.30)	1.08 (1.13)	1.10 (1.05)	1.08 (1.38)	1.08 (1.08)	1.09 (0.98)
Distance 25 to 100 km	2.12** (10.56)	3.76** (15.48)	7.39** (19.56)	1.99** (9.59)	3.48** (14.38)	6.92** (18.75)
Distance over 100 km	2.43** (12.49)	4.76** (18.52)	11.22** (24.51)	2.56** (13.04)	5.12** (18.99)	12.03** (24.86)
<i>Country group^a</i>						
Greece, Italy, Spain	--	--	--	0.39** (17.03)	0.25** (16.40)	0.30** (11.61)
<i>Pseudo-R²</i>		0.08			0.09	

^a *Reference categories:* age 50-59; medium education; child – working; single child; distance less than 25 km; all other countries.

Significance: * p < .05; ** p < .01.

Source: SHARE 2004 (Release 1), author's calculations.

10 Appendix

Table A1: Proximity to nearest living child (weighted percentages)

	Total	Men	Women	Age 50-59	Age 60-69	Age 70-79	Age 80+
Austria (n=1,224)							
- coresidence	38.8	37.9	39.5	50.3	34.1	29.6	37.5
- less than 25 km	46.4	46.0	46.7	38.7	47.7	54.4	47.4
- between 25 and 100 km	7.5	7.4	7.6	5.2	7.8	10.3	7.2
- more than 100 km	7.4	8.7	6.1	5.8	10.3	5.8	7.9
Germany (n=1,696)							
- coresidence	35.1	35.5	34.9	50.6	24.7	29.5	33.4
- less than 25 km	46.2	43.3	48.3	32.0	53.4	54.0	49.6
- between 25 and 100 km	8.6	9.3	8.1	7.1	11.7	6.5	8.0
- more than 100 km	10.1	11.9	8.8	10.4	10.2	10.0	9.0
Sweden (n=1,939)							
- coresidence	17.5	22.5	13.4	39.9	5.9	2.5	2.8
- less than 25 km	57.7	54.9	60.1	39.6	67.5	67.4	72.0
- between 25 and 100 km	12.8	10.9	14.5	10.0	12.6	18.1	13.4
- more than 100 km	12.0	11.7	12.1	10.4	14.1	12.1	11.9
Netherlands (n=1,706)							
- coresidence	24.7	31.3	19.2	47.2	13.7	6.7	2.6
- less than 25 km	63.3	58.3	67.6	42.2	74.3	81.3	81.2
- between 25 and 100 km	8.3	6.9	9.5	7.4	8.1	8.7	10.7
- more than 100 km	3.7	3.7	3.7	3.2	3.9	3.4	5.6
Spain (n=1,565)							
- coresidence	55.7	56.5	55.0	74.9	50.7	41.7	42.7
- less than 25 km	36.5	35.7	37.0	18.5	40.7	49.7	48.9
- between 25 and 100 km	2.6	2.3	2.8	2.4	3.1	2.0	2.8
- more than 100 km	5.3	5.5	5.2	4.2	5.5	6.6	5.6

Table A1 continued next page ...

Table A1 (cont'd.): Proximity to nearest living child (weighted percentages)

	Total	Men	Women	Age 50-59	Age 60-69	Age 70-79	Age 80+
Italy (n=1,562)							
- coresidence	63.0	61.5	64.2	84.7	56.2	48.1	50.7
- less than 25 km	30.9	30.5	31.2	12.2	36.9	44.3	40.2
- between 25 and 100 km	2.8	2.9	2.6	1.1	3.1	2.2	8.0
- more than 100 km	3.4	5.0	2.0	2.1	3.9	5.4	1.1
France (n=1,013)							
- coresidence	26.9	28.9	25.0	46.9	17.3	9.8	18.7
- less than 25 km	49.8	45.1	53.9	34.1	54.6	63.0	61.2
- between 25 and 100 km	10.6	11.6	9.8	7.5	12.8	15.0	7.8
- more than 100 km	12.8	14.4	11.3	11.5	15.3	12.2	12.3
Denmark (n=1,028)							
- coresidence	16.6	24.3	9.8	31.4	8.1	3.9	6.6
- less than 25 km	60.9	51.8	68.9	46.7	71.6	72.6	65.2
- between 25 and 100 km	15.1	15.9	14.5	16.1	11.6	15.7	18.8
- more than 100 km	7.4	8.1	6.8	5.8	8.7	7.7	9.4
Greece (n=1,308)							
- coresidence	56.6	59.5	54.3	80.9	54.9	41.1	34.5
- less than 25 km	33.9	29.7	37.3	12.8	35.6	47.6	51.9
- between 25 and 100 km	2.6	3.0	2.2	0.9	2.4	4.1	4.2
- more than 100 km	6.9	7.8	6.3	5.4	7.2	7.1	9.5
Switzerland (n=600)							
- coresidence	34.0	35.4	32.5	53.3	19.4	20.8	24.8
- less than 25 km	49.5	49.9	49.0	34.6	66.8	56.9	46.7
- between 25 and 100 km	10.2	8.7	11.6	8.1	8.0	14.9	13.3
- more than 100 km	6.4	6.0	6.9	4.0	5.8	7.4	15.2
Total (N=13,641)							
- coresidence	42.0	42.9	41.2	60.4	33.8	30.4	32.0
- less than 25 km	43.3	40.9	45.2	27.2	49.4	54.3	52.7
- between 25 and 100 km	6.9	7.1	6.7	5.4	8.2	7.0	7.6
- more than 100 km	7.9	9.1	6.9	7.0	8.6	8.2	7.7

Source: SHARE 2004 (Release 1), author's calculations.

Table A2: Frequency of contact to most contacted child, coresiding parent-child pairs excluded (weighted percentages)

	Total	Men	Women	Age 50-59	Age 60-69	Age 70-79	Age 80+
Austria (n=1,075)							
- daily	28.6	24.8	32.0	30.1	25.6	28.6	33.0
- several times a week	33.5	33.6	33.4	32.4	36.4	32.0	31.9
- about once a week	20.9	22.0	20.0	20.0	22.8	21.8	16.1
- less than weekly	17.0	19.5	14.7	17.5	15.2	17.6	19.1
Germany (n=1,482)							
- daily	25.7	23.9	27.0	20.0	29.4	25.4	28.4
- several times a week	39.7	38.2	40.8	42.1	37.9	38.1	42.5
- about once a week	19.7	21.3	18.6	20.6	22.8	20.5	17.7
- less than weekly	14.9	16.6	13.7	17.4	15.2	16.0	11.4
Sweden (n=1,851)							
- daily	33.4	31.8	34.7	33.0	33.2	32.3	36.1
- several times a week	43.4	43.2	43.5	46.1	44.1	41.9	38.4
- about once a week	16.0	15.6	16.3	13.5	16.1	18.7	17.5
- less than weekly	7.2	9.3	5.5	7.3	6.6	7.2	8.1
Netherlands (n=1,560)							
- daily	34.4	31.7	36.5	34.1	40.0	31.7	27.6
- several times a week	43.2	42.5	43.7	44.2	40.1	43.3	47.2
- about once a week	15.3	16.7	14.1	12.9	15.7	16.7	18.2
- less than weekly	7.2	9.1	5.7	8.8	4.2	8.4	7.1
Spain (n=1,254)							
- daily	57.8	52.8	61.5	56.9	57.9	58.9	57.3
- several times a week	27.7	29.8	26.1	25.4	29.2	27.3	28.9
- about once a week	7.8	9.1	6.8	9.7	6.5	8.6	5.5
- less than weekly	6.8	8.3	5.7	8.0	6.4	5.3	8.2
Italy (n=1,100)							
- daily	60.3	57.1	62.8	55.2	60.7	64.0	59.0
- several times a week	27.9	30.2	26.1	30.0	29.7	24.2	28.4
- about once a week	6.8	6.2	7.4	6.8	4.5	8.5	8.9
- less than weekly	5.0	6.6	3.8	8.1	5.0	3.4	3.7

Table A2 continued next page ...

Table A2 (cont'd.): Frequency of contact to most contacted child, coresiding parent-child pairs excluded (weighted percentages)

	Total	Men	Women	Age 50-59	Age 60-69	Age 70-79	Age 80+
France (n=912)							
- daily	30.9	26.6	34.7	26.4	30.6	33.8	37.0
- several times a week	38.4	39.9	37.2	42.0	40.1	35.4	32.4
- about once a week	18.7	19.2	18.2	19.0	15.9	19.5	21.6
- less than weekly	12.0	14.4	9.9	12.7	13.3	11.3	9.0
Denmark (n=985)							
- daily	30.5	28.5	32.1	31.6	27.0	31.2	33.7
- several times a week	39.1	36.4	41.4	42.0	45.4	32.2	27.6
- about once a week	21.3	22.7	20.2	17.0	20.0	26.9	28.3
- less than weekly	9.1	12.4	6.4	9.4	7.7	9.7	10.3
Greece (n=907)							
- daily	58.5	57.4	59.3	53.6	65.0	55.4	56.4
- several times a week	30.4	31.3	29.7	34.6	26.6	30.4	33.1
- about once a week	7.4	7.5	7.3	7.7	4.6	10.0	7.8
- less than weekly	3.8	3.8	3.8	4.0	3.8	4.2	2.7
Switzerland (n=517)							
- daily	22.9	16.7	29.22	24.4	27.1	15.6	23.4
- several times a week	36.0	36.3	35.7	32.7	39.1	40.5	28.5
- about once a week	25.6	26.6	24.6	29.1	18.3	27.5	29.2
- less than weekly	15.5	20.5	10.5	13.8	15.5	16.4	18.9
Total (N=11,643)							
- daily	39.3	36.1	41.7	34.0	41.1	41.8	41.3
- several times a week	35.5	36.0	35.1	37.9	35.6	32.9	34.9
- about once a week	15.0	15.7	14.4	15.9	13.5	15.6	15.1
- less than weekly	10.3	12.2	8.9	12.1	9.8	9.7	8.7

Source: SHARE 2004 (Release 1), author's calculations.

Table A3: Results of multinomial logistic regression for dependent variable 'proximity', coresiding parent-child pairs excluded – relative risk ratios (standard errors in parentheses), n = 11,657

	<i>Model 1:</i> Less than 25 km vs. ...		<i>Model 2:</i> Less than 25 km vs. ...	
	... between 25 and 100 km	... more than 100 km	... between 25 and 100 km	... more than 100 km
<i>Demographics</i> ^a				
Age 60-69	0.92 (1.11)	1.05 (0.64)	0.94 (0.81)	1.04 (0.48)
Age 70-79	1.20* (2.04)	1.14 (1.40)	1.22* (2.29)	1.13 (1.28)
Age 80+	1.33* (2.43)	1.50** (3.43)	1.33* (2.43)	1.51** (3.46)
Female respondent	1.05 (0.85)	0.92 (1.28)	1.05 (0.75)	0.93 (1.18)
Living with partner	0.94 (0.94)	0.90 (1.54)	0.93 (0.97)	0.90 (1.42)
Less than good health	1.06 (0.80)	0.91 (1.29)	1.10 (1.34)	0.89 (1.55)
Chronic diseases (2+)	0.91 (1.40)	0.85* (2.43)	0.92 (1.23)	0.85* (2.44)
Depression	0.91 (1.30)	1.15 (1.87)	0.95 (0.63)	1.13 (1.64)
<i>Education & SES</i> ^a				
Low education	0.67** (5.91)	0.66** (5.78)	0.77** (3.66)	0.63** (6.05)
High education	1.30** (3.21)	1.60** (5.80)	1.28** (2.99)	1.62** (5.96)
Owner of dwelling	1.19** (2.74)	1.20** (2.88)	1.32** (4.34)	1.15* (2.18)
<i>Residence</i>				
Migrated, past 5 years	1.91** (5.16)	2.28** (6.84)	1.83** (4.79)	2.34** (7.02)
Urban area	0.69** (6.34)	0.81** (3.46)	0.68** (6.27)	0.82** (3.19)
<i>Child characteristics</i> ^a				
Unemployed	0.88 (0.80)	1.04 (0.23)	0.90 (0.63)	1.03 (0.17)
In education	1.91** (5.61)	2.47** (8.42)	1.84** (5.29)	2.52** (8.59)
Other activity	0.79* (2.31)	1.12 (1.19)	0.85 (1.61)	1.09 (0.91)
Youngest sibling	0.67** (5.30)	0.54** (8.72)	0.67** (5.17)	0.54** (8.57)
Other than youngest sibling	0.43** (9.39)	0.13** (17.73)	0.41** (9.78)	0.14** (17.43)
Daughter	1.07 (1.14)	1.02 (0.34)	1.07 (1.09)	1.02 (0.34)
Own children	0.73** (4.75)	0.62** (6.80)	0.72** (4.87)	0.63** (6.68)
<i>Country group</i> ^a				
Greece, Italy, Spain	--	--	0.58** (6.04)	1.17 (1.87)
Denmark, Netherlands, Sweden	--	--	1.18* (2.44)	0.85* (2.22)
<i>Pseudo-R</i> ²	0.07		0.08	

^a *Reference categories:* age 50-59; medium education; child – working; single child; all other countries.

Significance: * p < .05; ** p < .01.

Source: SHARE 2004 (Release 1), author's calculations.

Table A4a: Results of multinomial logistic regression for dependent variable 'proximity', separate models for three groups of countries^a – relative risk ratios (standard errors in parentheses)

	South: Coreidence vs. ...			Central: Coreidence vs. ...			North: Coreidence vs. ...		
	... less than 25 km	... between 25 and 100 km	... more than 100 km	... less than 25 km	... between 25 and 100 km	... more than 100 km	... less than 25 km	... between 25 and 100 km	... more than 100 km
<i>Demographics^b</i>									
Age 60-69	1.66** (4.59)	1.58 (1.62)	1.75** (2.62)	1.64** (5.07)	1.84** (3.98)	2.10** (4.92)	2.69** (7.59)	2.41** (5.28)	4.03** (7.53)
Age 70-79	1.65** (3.94)	1.86 (1.88)	1.87* (2.41)	1.42** (2.92)	2.01** (3.83)	1.95** (3.50)	3.61** (6.18)	4.43** (6.23)	5.56** (6.47)
Age 80+	1.38* (2.03)	2.08 (1.86)	1.49 (1.22)	1.07 (0.45)	1.45 (1.49)	2.02** (2.89)	2.93** (3.93)	4.06** (4.49)	6.35** (5.51)
Female respondent	0.77** (2.96)	0.86 (0.72)	0.64** (2.65)	0.79** (2.74)	0.84 (1.33)	0.65** (3.37)	1.08 (0.76)	1.21 (1.44)	0.92 (0.55)
Living with partner	1.22* (2.09)	1.06 (0.24)	0.66* (2.30)	0.97 (0.30)	1.12 (0.81)	0.91 (0.67)	0.82 (1.49)	0.68* (2.41)	0.69* (2.09)
Less than good health	0.96 (0.43)	1.03 (0.11)	0.99 (0.03)	0.69** (4.15)	0.64** (3.25)	0.66** (3.05)	0.83 (1.46)	1.07 (0.46)	0.81 (1.19)
Chronic diseases (2+)	1.16 (1.71)	0.93 (0.34)	0.74 (1.77)	1.14 (1.51)	1.07 (0.53)	0.90 (0.74)	1.16 (1.30)	1.00 (0.02)	1.12 (0.70)
Depression	0.96 (0.43)	0.61* (2.05)	1.04 (0.20)	1.12 (1.14)	1.24 (1.47)	1.41* (2.31)	0.95 (0.37)	0.79 (1.36)	1.03 (0.13)
<i>Education & SES^b</i>									
Low education	1.04 (0.35)	0.97 (0.11)	0.81 (0.95)	0.81* (2.32)	0.81 (1.48)	0.64** (2.94)	0.77* (2.12)	0.50** (4.56)	0.37** (5.69)
High education	0.93 (0.35)	1.15 (0.30)	1.87* (2.28)	1.27* (2.29)	1.66** (3.31)	2.04** (4.90)	0.95 (0.36)	1.28 (1.49)	1.63** (2.76)
Owner of dwelling	1.20 (1.93)	1.40 (1.34)	1.23 (1.09)	0.94 (0.81)	1.28* (1.98)	1.24 (1.70)	0.83 (1.68)	1.21 (1.38)	1.09 (0.55)
<i>Residence</i>									
Migrated, past 5 years	0.65 (1.36)	2.03 (1.29)	2.70** (2.74)	1.99** (3.18)	2.59** (3.22)	3.82** (5.21)	1.86** (2.65)	3.92** (5.35)	4.04** (5.14)
Urban area	1.20* (2.28)	0.50** (3.30)	0.80 (1.40)	2.17** (9.34)	1.35* (2.34)	1.46** (3.03)	1.29* (2.44)	0.86 (1.14)	0.99 (0.09)

Table A4a continued next page ...

Table A4a (cont'd.): Results of multinomial logistic regression for dependent variable 'proximity', separate models for three groups of countries^a – relative risk ratios (standard errors in parentheses)

	South: Coreidence vs. ...			Central: Coreidence vs. ...			North: Coreidence vs. ...		
	... less than 25 km	... between 25 and 100 km	... more than 100 km	... less than 25 km	... between 25 and 100 km	... more than 100 km	... less than 25 km	... between 25 and 100 km	... more than 100 km
<i>Child characteristics</i> ^b									
Unemployed	0.29** (6.87)	0.16* (2.56)	0.43* (2.37)	0.51** (4.02)	0.65 (1.65)	0.56* (1.99)	0.43** (3.86)	0.32** (3.51)	0.25** (3.36)
In education	0.13** (6.91)	0.77 (0.68)	1.42 (1.40)	0.20** (10.77)	0.25** (5.70)	0.39** (4.66)	0.17** (12.71)	0.30** (6.56)	0.36** (4.90)
Other activity	0.68** (3.51)	0.68 (1.36)	0.51** (2.71)	0.56** (4.59)	0.47** (3.60)	0.72 (1.66)	0.52** (3.08)	0.40** (3.38)	0.59 (1.90)
Youngest sibling	0.63** (4.56)	0.40** (4.18)	0.44** (4.85)	0.81* (2.21)	0.55** (4.25)	0.40** (7.05)	0.79 (1.54)	0.41** (5.09)	0.24** (8.01)
Other than youngest sibling	0.73** (2.74)	0.29** (4.24)	0.21** (5.94)	0.97 (0.32)	0.44** (4.96)	0.15** (9.58)	0.97 (0.16)	0.32** (5.45)	0.07** (10.33)
Daughter	1.20* (2.22)	1.35 (1.47)	1.54** (2.74)	1.60** (6.00)	1.67** (4.31)	1.32* (2.33)	1.22* (1.97)	1.41** (2.69)	1.40* (2.37)
Own children	6.31** (20.12)	3.17** (4.93)	3.64** (6.61)	3.01** (12.42)	2.18** (5.80)	1.93** (4.78)	9.31** (13.32)	7.89** (10.78)	7.80** (9.93)
Pseudo-R ²		0.18			0.13			0.23	

^a South: Greece, Italy, Spain; n = 4,433. Central: Austria, France, Germany, Switzerland; n = 4,525. North: Denmark, Netherlands, Sweden; n = 4,672.

^b Reference categories: age 50-59; medium education; child – working; single child. – Significance: * p < .05; ** p < .01.

Source: SHARE 2004 (Release 1), author's calculations.

Table A4b: Results of χ^2 -Tests testing equality of regression coefficients in 'South', 'Central', and 'North'

	χ^2 -Test South vs. Central		χ^2 -Test Central vs. North		χ^2 -Test North vs. South	
	... less than 25 km	... between 25 and 100 km	... less than 25 km	... between 25 and 100 km	... less than 25 km	... between 25 and 100 km
<i>Demographics</i> ^b						
Age 60-69	0.92	0.64	0.00	0.23	0.01	0.21
Age 70-79	0.39	0.83	0.00	0.01	0.00	0.03
Age 80+	0.27	0.43	0.00	0.01	0.01	0.18
Female respondent	0.84	0.94	0.02	0.05	0.01	0.18
Living with partner	0.10	0.85	0.30	0.03	0.02	0.14
Less than good health	0.01	0.08	0.23	0.01	0.33	0.87
Chronic diseases (2+)	0.88	0.60	0.87	0.71	0.31	0.80
Depression	0.26	0.01	0.34	0.05	0.94	0.37
<i>Education & SES</i> ^b						
Low education	0.09	0.60	0.74	0.02	0.08	0.05
High education	0.16	0.44	0.09	0.24	0.94	0.82
Owner of dwelling	0.05	0.75	0.37	0.76	0.01	0.61
<i>Residence</i>						
Migrated, past 5 years	0.01	0.70	0.84	0.31	0.01	0.28
Urban area	0.00	0.00	0.00	0.01	0.57	0.03
<i>Child characteristics</i> ^b						
Unemployed	0.01	0.07	0.54	0.09	0.14	0.38
In education	0.20	0.02	0.37	0.58	0.45	0.03
Other activity	0.23	0.28	0.73	0.64	0.23	0.16
Youngest sibling	0.08	0.22	0.90	0.16	0.22	0.95
Other than youngest sibling	0.09	0.23	0.98	0.22	0.19	0.85
Daughter	0.01	0.35	0.04	0.32	0.87	0.85
Own children	0.00	0.13	0.00	0.00	0.04	0.00

Table A5: Results of multinomial logistic regression for dependent variable 'frequency of contact', separate models for two groups of countries^a – relative risk ratios (standard errors in parentheses)

	South: Daily contact vs. ... several times a week ... about once a week ... less than weekly	Central-North: Daily contact vs. ... several times a week ... about once a week ... less than weekly	χ^2 -Test South vs. Central-North several times a week ... about once a week ... less than weekly
<i>Demographics^a</i>			
Age 60-69	1.07 (0.59)	0.96 (0.65)	0.36 (0.83)
Age 70-79	1.12 (0.85)	1.05 (0.57)	0.63 (0.67)
Age 80+	1.23 (1.26)	1.06 (0.55)	0.39 (2.22)
Female respondent	0.89 (1.28)	0.96 (0.70)	0.44 (9.41)
Living with partner	0.80* (2.21)	1.09 (1.37)	0.01 (9.04)
Less than good health	1.01 (0.12)	0.82** (3.15)	0.07 (2.81)
Chronic diseases (2+)	0.89 (1.28)	0.94 (1.08)	0.64 (3.25)
Depression	1.83 (1.84)	1.00 (0.01)	0.15 (2.62)
<i>Education & SES^a</i>			
Low education	1.19 (1.33)	0.84** (2.85)	0.02 (2.95)
High education	0.95 (0.22)	1.28** (3.20)	0.18 (0.10)
Owner of dwelling	0.87 (1.36)	0.94 (1.03)	0.47 (6.05)
<i>Residence</i>			
Migrated, past 5 years	0.75 (0.84)	1.01 (0.09)	0.43 (1.53)
Urban area	1.37** (3.69)	0.98 (0.43)	0.00 (2.84)

Table A5 continued next page ...

Table A5 (cont'd.): Results of multinomial logistic regression for dependent variable 'frequency of contact', separate models for two groups of countries^a – relative risk ratios (standard errors in parentheses)

	South: Daily contact vs. several times a week ... about once a week ... less than weekly	Central-North: Daily contact vs. several times a week ... about once a week ... less than weekly	χ^2 -Test South vs. Central-North ... several times a week ... about once a week ... less than weekly
<i>Child characteristics</i> ^a			
Unemployed	0.95 (0.23)	0.67** (3.03)	0.20
In education	1.23 (0.76)	0.85 (1.42)	0.23
Other activity	1.00 (0.04)	0.76** (3.21)	0.06
Youngest sibling	0.90 (0.80)	0.65** (4.45)	0.62
Other than youngest sibling	0.76* (2.02)	0.89 (1.46)	0.96
Daughter	0.75** (3.20)	0.76** (4.85)	0.86
Own children	0.89 (1.09)	1.14* (2.07)	0.05
Distance 25 to 100 km	1.03 (0.03)	1.97 (1.74)	0.25
Distance over 100 km	2.19** (5.23)	3.12** (15.88)	0.02
<i>Pseudo-R²</i>	<i>0.09</i>	<i>0.07</i>	--

^a South: Greece, Italy, Spain; n = 3,259. Central-North: Austria, Denmark, France, Germany, Netherlands, Sweden, Switzerland; n = 8,373.

^b Reference categories: age 50-59; medium education; child – working; single child; distance less than 25 km.

Significance: * p < .05; ** p < .01.

Source: SHARE 2004 (Release 1), author's calculations.