



# **Explaining parent-child proximity in Eastern and Western Europe: a micro and macro perspective**

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## **1 Introduction**

The geographic proximity between parents and their adult children is a key element of intergenerational solidarity (Bengtson & Roberts, 1991). Many studies have shown that the geographical distance between parents and their adult children is an important determinant of intergenerational support: living close by increases the support received and given. These studies treat the geographic proximity as an independent variable, as an explanation of the level of intergenerational support (Peter A. Rogerson, Burr, & Lin, 1997). However, they tend to ignore the endogenous nature of the geographic proximity (Tomassini, Wolf, & Rosina, 2003). The geographical distance between parents and adult children can itself be considered as a dimension and an expression of intergenerational solidarity (Bengtson & Roberts, 1991; Tomassini et al., 2003). It offers the opportunity structure for intergenerational support (Bengtson & Roberts, 1991; Shelton & Grundy, 2000). Furthermore, the geographic proximity may reflect well-defined choices of both parents and children to live nearby (Konrad, Künemund, Lommerud, & Robledo, 2002; Mulder & Kalmijn, 2006; Tomassini et al., 2003).

In this study, we handle the geographic proximity as the dependent variable. Our aim is to gain insight in the diversity in the geographic proximity between parents and their adult children. The reasons for this are twofold. First of all, as the geographic proximity is an important determinant of intergenerational support, it is equally important to understand who lives close to their parents and who does not (Glaser & Tomassini, 2000). Insight in this diversity is a necessary precondition to understand how the different antecedents of geographic proximity and intergenerational support interrelate and indirectly, through the geographic proximity, affect the level of intergenerational support (Lawton, Silverstein, & Bengtson, 1994). Secondly, the geographic proximity between parents and their adult children knew some major changes during the past

decades. Families are changing in form and meaning as a result of trends in divorce, remarriage and cohabitation, the ageing of the population and the declining fertility rate (Bengtson, 2001; Constanzo & Hoy, 2007; Putney & Bengtson, 2005). In addition, feelings of family obligations altered due to an increasing importance attached to privacy and autonomy (Shelton & Grundy, 2000). The geographical distance between parents and their adult children does not remain unaffected by these changes (Kalmijn, 2008). The most drastic change from the perspective of intergenerational solidarity is the decline in multigenerational households (Glaser, Tomassini, & Grundy, 2004; Goldscheider & Lawton, 1998; Kohli, Künemund, & Lüdicke, 2005; Schoeni, 1998) and the increase in people living alone, specifically at old age (Grundy, 2006; Hank, 2007; Kalmijn & Saraceno, 2008). From a pessimistic perspective, these changes would reflect *'the decline of the family'* (Silverstein, Bengtson, & Lawton, 1997). On the other hand, more optimistic studies state that *'intimate but distant'* relationships still allow for high levels of support (Goldscheider & Lawton, 1998; Hank, 2007; Rosenmayr & Kockeis, 1963). In general, this raises the question whether the geographic proximity between parents and their adult children can (still) be considered as an expression of intergenerational solidarity and if so, for whom?

By taking a snapshot of the geographic proximity and its antecedents within five Eastern and Western European countries, drawing on data from the Generations and Gender Survey (i.e. Bulgaria, Russia, Georgia, Germany and France), we aim at gaining greater insight on the intergenerational dimension of the geographical distance with these socio-cultural and demographic changes in mind. For this purpose a micro perspective, studying differences on the individual level, and a macro perspective, comparing the diversity in geographic proximity within different societies, are applied. We do not restrict ourselves to the geographical distance of adult children and parents who live separately, but also include parent-child dyads living in the same household.

With regard to the micro perspective, we focus on the different family constellations in relationship to the geographic proximity as these knew some major changes during the past decades. The family relationships tend to be characterized by long term reciprocity (Aartsen, van Tilburg, Smits, & Knipscheer, 2004). Therefore features of the family constellation of the parents *and* their adult children are taken into account as they both may play a crucial role in explaining the geographic proximity. Whereas the effect of the family constellation of the parent (e.g. parental divorce) on geographic proximity has been studied frequently (see e.g. Kalmijn, 2008), little is known about the effect of the family constellation of the adult child on the geographic proximity, specifically when it comes to newer family forms as single parent families and new constellated families (Feijten & van Ham, 2007; Mulder & Cooke, 2009). This can partly be attributed to a lack of detailed information on the specific family constellation of the respondents. Knowledge about this relationship however is crucial as these family forms are expected to win ground in the near future. The Generations and Gender Survey enables this kind of analyses (Vikat et al., 2007). In addition, the relationship between the family norms and geographic proximity is explicitly taken into account. Little is known about the association between family norms and the geographic proximity (see e.g. Bordone, 2009; Klein Ikkink, van Tilburg, & Knipscheer, 1999; Mulder, 2007). Nevertheless, the debate on the decline of the family versus the more optimistic scenario of *'intimate but distant'* relationships can be situated within the context of changing family norms (Shelton & Grundy, 2000). Recent studies have shown that feelings of intergenerational solidarity are still present, however their manifestations are expected to have changed (Daatland & Herlofson, 2003). This raises the question how family norms and geographic proximity are related in contemporary Europe.

On the macro level there is a high degree of diversity in the geographical distance between parents and their adult children across Europe (Kohli et al., 2005). Intergenerational co-residence is a well-established living arrangement in Eastern Europe (Ahmed & Emigh, 2005), whereas in Western Europe intergenerational co-residence and living close by is less likely (Hank, 2007;

Mulder & van de Meer, 2009). The most common explanation for these differences are the cultural differences between the different regions: “weak” versus “strong” family societies (Reher, 1998). Other factors on the structural level, as the socio-economic resources, the demographic constellation of a country and the general social policy are considered important as well (Hagestad & Uhlenberg, 2006; Hank, 2007). As we use the data of the Generations and Gender Survey, the macro perspective of this paper offers a unique opportunity to compare the geographic proximity and its antecedents between Eastern and Western Europe. Little research has been done on the comparison of these two regions, specifically when it comes to geographic proximity and intergenerational solidarity (Ahmed & Emigh, 2005). Since multigenerational households are expected to be much more common in Eastern than in Western Europe (Hank, 2007), the changes in family constellations occurred at a slower pace in Eastern Europe (Lesthaeghe & Surkyn, 2002) and the two regions generally differ in terms of family solidarity, the comparison of the two different regions adds to our understanding of the impact of the socio-demographic changes at the societal level on the geographic proximity as an opportunity structure for intergenerational support. Do the differences in geographic proximity between the two European regions reflect two opposites: a strong versus a weak opportunity structure for intergenerational support? Or do they reflect different but not necessarily weaker opportunity structures for support (Daatland & Herlofson, 2003; Kohli et al., 2005)?

We start this paper with an overview of the literature on geographic proximity and its antecedents. In the first paragraph of this theoretical framework, the endogenous nature of geographic proximity with respect to intergenerational family relationships is handled more in detail. The second paragraph describes the antecedents of geographic proximity on the micro level. The third part deals with the macro level.

## **2 Background and hypotheses**

### **2.1 The endogenous nature of geographic proximity: the long term reciprocity of family relations**

Generally, when studying the relationship between geographic proximity and the degree of actual support between parents and their adult children, the geographic proximity is treated as a determinant of the actual level of support (Tomassini et al., 2003). However, from the perspective of the exchange theory the dynamic nature of the geographical distance between parents and their adult children comes forward.

The exchange theory starts from the assumption that interactions are characterized by maximizing the benefits and minimizing the costs (Dowd, 1975). Changes in relationships are explained in terms of reciprocity. People would prefer relationships where the supportive transactions are in balance (Aartsen et al., 2004; Klein Ikkink & van Tilburg, 1998). When relationships are no longer 'in balance', they come under pressure. However, from the exchange perspective, family relations form a specific category. Relationships with family would imply a life long reciprocity: family members keep giving, when one no longer receives (Aartsen et al., 2004). The degree of actual support received or provided varies over time (Bengtson, 2001; Silverstein, Gans, & Yang, 2006).

Recently Tomassini et al. (2003) pointed to the importance of treating the geographic proximity as an endogenous variable with respect to the long term reciprocal nature of family relations. The geographical distance between parents and their adult children can be influenced by the wishes to receive care at present or in the future (Tomassini et al., 2003). On the one hand, children can benefit from nearby parents as, for example, low-cost sources of childcare since geographic proximity is a strong correlate of grandparent's prosperity to provide care to their grandchildren (Hank & Buber, 2009). On the other hand living close to one's parents may entail costs as it increases the likelihood of providing care to parents in time of need (Tomassini et al., 2003). With regard to co-residence,

living together can be beneficial for both generations (Velkoff, 2001). Generally, not only exchanges concerning instrumental support may affect the residential choice. Other aspects are financial exchanges, emotional considerations .... (Tomassini et al., 2003).

To sum up, intergenerational exchanges are not unidirectional (Mutchler & Burr, 1991; Putney & Bengtson, 2005). This long term reciprocity may affect the geographical distance between parents and their adult children as the geographical distance between parents and adult children depends on exchanges in the past, the present and potentially in the future (Grundy, 2005). Therefore, we expect the latent and manifest need for support to be a correlate of the geographic proximity. Within this respect both the (potential) need for support of the parents *and* their adult children are of importance. The next paragraph deals with the determinants of geographic proximity on the individual level within this respect.

## **2.2 Micro perspective: diversity in geographic proximity**

With regard to the antecedents of geographic proximity demographic, cultural and socio-economic determinants can be distinguished (Hank, 2007; Tomassini, Glaser, Broese van Groenou, & Grundy, 2004). These determinants are expected to explain a large variety in the geographic proximity between adult children and their parents.

### **2.2.1 Demographic features explaining parent-child proximity**

As mentioned in the introduction, specific attention goes to the family constellation as a demographic antecedent of geographic proximity. Both the own life events as well the parental life events may affect the geographic proximity (Shelton & Grundy, 2000). Families are rapidly changing as a result of trends in divorce, remarriage and cohabitation (Bengtson, 2001; Schmeekle, Giarusso, Feng, & Bengtson, 2006). In general, these different aspects of changes in the family constellations raise the question whether family members are still providing or willing to provide mutual support (Komter & Vollebergh,

2002). In this paper, we take it one step back and raise the question how these life events affect the geographic proximity in the first place. As Lawton (1994, p. 57) states: *'Changes in family structure, such as the increase in divorce and remarriage, may thus alter the functioning of intergenerational relationships by reshaping access to family members'*.

With regard to the marital status of the parents, widowhood can imply an increase in the need for support from children (Shelton & Grundy, 2000). Specifically for widowed mothers this may affect the geographic proximity, as the contacts and bond of mothers with their kin are generally stronger and can trigger a move towards each other (Michielin, Mulder, & Zorlu, 2008). Parental divorce on the other hand is expected to negatively affect the geographic proximity (Michielin et al., 2008). This holds specifically for the geographical distance between divorced fathers and their adult children. This tends to be larger (Peter A. Rogerson, Weng, & Lin, 1993), specifically when they divorced early in the family life cycle (Bulcroft & Bulcroft, 1991). When parents divorced while children already reached adulthood, Shapiro (2003) did not find any effect of parental divorce on the geographical distance. With regard to co-residence however, these results pointed to a negative effect on the fathers' probability of co-residence with an adult child. Shapiro (2003) explains this in terms of the gendered nature of parenting and the economic vulnerability of divorced women, which may *'act as a catalyst for adult children to co-reside with a newly unmarried mother'* (Shapiro, 2003, p. 281).

When it comes to the life events of the adult children, both the presence of children in the household in relation to the marital history and the current partner status are expected to be decisive. In general, the presence of children leads to a smaller geographic proximity. On the one hand people may prefer living close to their parents as they function as potentially support providers (Michielin & Mulder, 2007). The importance attached to a strong emotional bond between grandparents and grandchildren can trigger the geographic proximity as well (Michielin et al., 2008). With respect to the partner status of the adult

children, Bumpass and Raley (1995) report an increasing likelihood of divorced women and specifically mothers returning to live with their parents. The need for intergenerational support on different levels (financial, caring, emotional...) can be crucial in this decision (Michielin & Mulder, 2007). The interaction with the presence of children is thus expected to strengthen this effect.

A same reasoning can be made with regard to the geographical proximity of widowed children towards their parents. However, this effect is expected to be less strong as widowed children mostly keep living in their own house, whereas with divorce or separation at least one of the partners leaves the marital home (Michielin et al., 2008).

When the adult child is single, it may have less constraint on its residential choice and is therefore more likely to live further away (Michielin & Mulder, 2007; Peter A. Rogerson et al., 1993; Shelton & Grundy, 2000). On the other hand, when the parents are in need, the lower level of competing responsibilities of the single child can reduce the geographic distance. Therefore parents and single children may live closer or (still) live together. This can also meet the needs for companionship of the unmarried child (Michielin et al., 2008; Peter A. Rogerson et al., 1993).

With regard to the relationship between remarried couples and reconstituted families on the one hand and the geographic proximity on the other hand, little is known (Feijten & van Ham, 2007; Mulder & Cooke, 2009). With respect to the residential mobility, Feijten and van Ham (2007) point to a higher level of residential mobility of those in a new relationship compared to people in a first relationship: *'Finding a new partner can redirect the spatial career to a new place that has new opportunities'* (Feijten & van Ham, 2007, p. 646). However, with respect to the distance towards the parents, little is known. As these new family constellations are increasingly occurring, it is important to understand this relationship. Therefore we explicitly take into account the partner history and current partner status of the adult children.

In conclusion, a short remark on the geographic proximity of married and cohabiting couples is needful as for married or cohabiting couples not only the geographical distance to the parents but also to the parents in law is at stake. Specifically when the distance between the parents and the parents in law is high, this raises a possible competition in residential choice (Tomassini et al., 2003). The geographic proximity of married or cohabiting couples therefore not only depends on features of the parents and the adult child, but may be affected by the parents in law as well (Höllinger & Haller, 1990; Shelton & Grundy, 2000). Unfortunately, the dataset does not contain any information about the geographic proximity of the parents in law. A gender effect however is expected within this respect as the bonds of women with their family tend to be stronger (Shelton & Grundy, 2000). Therefore, we expect married or cohabiting daughters to live closer to their parents than married or cohabiting sons. On the other hand, women are generally expected to be more likely than men to move to the husband's place of residence (Michielin et al., 2008).

Besides the family constellation of the parent and the adult child, other important demographic correlates are age and the related health status, gender and the number of siblings. With respect to age, the relationship between age and geographic proximity is expected to be curvilinear (Hank, 2007). At a younger age parents and children usually co-reside (Hank, 2007). When they live separately, older adults are expected to live further away from their parents due to a higher probability of successive moves during their life span (Shelton & Grundy, 2000). However, for the oldest old increasing needs, often health problems, may positively affect the geographic proximity (Hank, 2007; Michielin & Mulder, 2007). In general, both the health status of the parents and the adult children can affect the geographic proximity as a poor health status increases the need for support (Hank, 2007). Daughters are expected to live closer to their parents than sons. First of all, women tend to be 'kin-keepers' (Lawton et al., 1994). Secondly, they more often function as support providers. As this requires geographic proximity, the geographical distance is expected to be smaller for

daughters than for sons (Peter A. Rogerson et al., 1997; Shelton & Grundy, 2000). On the other hand, women would be more likely to move for reasons of marriage (Mulder & Kalmijn, 2006). With regard to the gender of the parents, a higher level of integration is expected with mothers than with fathers, specifically for daughters (Silverstein et al., 1997). Therefore the distances towards the mother are expected to be smaller than towards the father, if both parents are alive and living separately. The presence of other siblings is expected to be decisive with respect to the geographic proximity as well. Here again the reciprocal nature of the parent-child relationship plays an important role. On the one hand, a larger family size may restrict the exchanges from parents towards their children due to competing needs of other children (Tomassini et al., 2004; Tomassini et al., 2003). On the other hand, when the number of siblings is high the obligation to support their parents is expected to be lower (Peter A. Rogerson et al., 1993) which possibly results in a larger geographical distance between the adult child and their parents (Shelton & Grundy, 2000).

### **2.2.2 Cultural correlates: the importance of family norms**

Little is known about the association between family norms and geographic proximity (Klein Ikkink et al., 1999). However, differences in the strength of family norms are expected to play an important role in explaining geographic proximity and in specific the incidence of co-residence (Tomassini et al., 2004; Tomassini et al., 2003). The geographic proximity and living arrangements may be determined by the expectations of family members versus current and future care provision (Mulder, 2007). Family obligations can affect the geographic proximity between parents and their adult children.

These family norms altered significantly during the past decades (Putney & Bengtson, 2005). In general people tend to desire more autonomy and self-reliance than a few decades ago (de Jong-Gierveld, de Valk, & Blommestijn, 2001) (i.e. individualization process). This general preference for more autonomy and privacy affected the residential choice as well as reflected the nuclearization of the households (Shelton & Grundy, 2000). People prefer living in the

neighbourhood, still allowing for exchange and support between family members, but living on their own (Kohli et al., 2005; Sundstöröm & Johansson, 2005). The obligation to provide housing to kin in need may be weakening (Goldscheider & Lawton, 1998). This preference to live independently applies to all ages, including old age (Grundy, 2006). Within terms of intergenerational solidarity, geographic proximity seems to replace co-residence (Kalmijn & Dykstra, 2006).

Not all people attach equal importance to family solidarity. The expectation is that stronger feelings of family obligation imply a shorter geographical distance (Tomassini et al., 2004). Within this respect we distinguish between feelings of filial obligation and feelings of parental obligation.

### **2.2.3 Socio-economic resources**

The socio-economic resources are considered an important determinant of the geographic proximity. The nuclearization of the households during the past decades in Western Europe can not be understood without the improvement of the socio-economic status of the population (Kalmijn, 2007). Economic resources are a necessary precondition for the realization of a nuclear household.

On the individual level, a good socio-economic status is hypothesized to enable residential independency and to correlate with a larger geographic distance. More specific, the educational level of both the adult child and the parent are expected to have a negative effect on the geographic proximity and co-residence (Tomassini et al., 2003). The educational level is considered a key mobility factor (Kalmijn, 2006). Highly educated adult children move further away for educational and job opportunities (Hank, 2007; Lawton et al., 1994). A low parental socio-economic status heightens the odds of multigenerational co-residence and living close by (Michielin & Mulder, 2007). Economic constraints can restrict young adults to start living on their own (Attias-Donfut, Ogg, & Wolff, 2005). On the other hand, Kalmijn and Saraceno (2008) found that children more often live with richer parents than with poorer parents. A possible reason for this

is that richer parents have more to offer in terms of living conditions than poorer parents.

Housing tenure on the other hand is expected to have a positive effect on the geographic proximity of adult children towards parents (Hank, 2007). The decision to buy a house is often well-considered. The location specific social capital, which includes the proximity of parents, may be a decisive factor within these considerations (Lawton et al., 1994; Mulder & Kalmijn, 2006). With respect to co-residence with parents however, homeownership on the household level can have an opposite effect as it may be an indicator of a good socio-economic status of the parents.

### **2.3 Macro level**

There exist strong differences in the geographic proximity between parents and their adult children within Europe. In this paper we explicitly focus on the comparison of Western and Eastern Europe. With regard to these two regions, multigenerational households are common in Eastern Europe where living in multigenerational households is less likely in Western Europe (Ahmed & Emigh, 2005; Hank, 2007). Structural and cultural factors on the macro level can account for these differences. On the structural level, a.o. the labour market and the educational system, the demography of a country, the housing conditions and housing policy and the welfare regime are of importance (Ahmed & Emigh, 2005; Mandic, 2008; Saraceno & Keck, 2008). With regard to the cultural factor, the normative beliefs concerning intergenerational co-residence may play a key role (Tomassini et al., 2004).

We do not aim to reveal all features on the societal level accounting for differences in the geographic proximity. However, we want to focus on the cultural and demographic differences on the macro level which are expected to affect and even challenge the intergenerational solidarity, and more specifically the geographic proximity. The comparison of these two regions offer the opportunity to gain insight on the impact of the socio-demographic trends at the

societal level on the geographic proximity as they strongly differ with respect to geographic proximity, specifically when it comes to multigenerational co-residence. As stated in the introduction, do the differences in geographic proximity between the two European regions reflect two opposites: a strong versus a weak opportunity structure for intergenerational support? Or do they represent different but not necessarily weaker opportunity structures for support (Daatland & Herlofson, 2003; Kohli et al., 2005)? We therefore restrict ourselves to two areas of the family relations which knew some major changes during the past decades and are often attributed a negative effect on the intergenerational solidarity: the changing family constellations and the altering feelings of family solidarity (Daatland & Herlofson, 2003; Putney & Bengtson, 2005).

### **2.3.1 Macro level: the effect of family constellations**

With regard to the family constellations, the pace at which changes occurred differs significantly between Eastern and Western Europe (Lesthaeghe & Surkyn, 2002). Where the trends towards new household formation in North and Western Europe started in the 1960s, Central and Eastern Europe have long been characterized by early patterns of marriage and premarital cohabitation (Avdeev & Monnier, 2000; Lesthaeghe & Surkyn, 2002). This changed in the late 1980s: *'The political and economic transformations of the late 1980s and early 1990s were accompanied by rapid and substantial changes in marriage, cohabitation and childbearing'* (Thornton & Philipov, 2009, p. 2). The marriage and fertility rates declined, marriages were postponed to a later age, nonmarital cohabitation increased in many countries as well as the fraction of babies born to unmarried mothers (Thornton & Philipov, 2009). Not only the transformations on the structural level account for this process. Changes in the cultural values are regarded important as well. Within this respect, Lesthaeghe and Surkyn (2002) conclude that in Central Europe, and to a smaller extent in Eastern Europe, the tolerance towards new household formations has increased during the 1990s. Nevertheless, large differences between Eastern and Western Europe remain (Kalmijn, 2007).

The question is how these differences relate to the geographic proximity in each country. Of specific interest are the new household forms due to divorce and remarriage. Here, we distinguish between the effect of the parental life events and the effect of the adult children's life events. With regard to the first Kalmijn (2008) compared the effect of parental divorce on parent-child proximity in ten Southern, Western and Northern European countries. For fathers, the negative effect of divorce was present in all countries. However, in some countries the effects were stronger than in other countries. This is explained in terms of traditional gender roles: in more traditional countries the distance increased more than in more egalitarian societies. In general, the consequences of parental divorce are expected to be stronger in more traditional societies than in egalitarian societies due to different levels of tolerance towards divorce. In line with Kalmijn (2008) we expect the higher tolerance towards newer family constellations in the Western European countries to lead to a smaller negative effect of new family constellations on geographic proximity. It is important to note however that Kalmijn (2008) only took the effect of the parental marital history into account. Where the effect of parental divorce or parental remarriage is expected to trouble the relationship between parents and adult children (de Jong-Gierveld et al., 2001) resulting in a larger geographical distances, specifically for fathers, this does not necessarily holds true for adult children's life events. In case of adult children's divorce, this event can even lead to a smaller geographical distance due to increasing needs (Bumpass & Raley, 1995; Michielin et al., 2008). The higher tolerance towards new family constellations in Western Europe is therefore hypothesized to have a more positive effect on the geographic proximity as parents may be more willing to provide support to divorced children. About the effect of new constellated families on the geographic proximity little is known (Putney & Bengtson, 2005). Here again, we start from the assumption that the higher prevalence and tolerance towards new family forms in Western Europe goes hand in hand with a less disruptive effect of these life events on the intergenerational solidarity and therefore the geographic proximity. However, as for married and cohabiting couples, the decision where to live may also depend on the distance to the parents in law (Tomassini et al.,

2003). On the other hand, for Eastern Europe it is important to keep in mind that the moment young people start living independently not only depends on their life events, as marriage. The feasibility to start living independently plays a key role as well. With regard to the timing of home-leaving, Eastern Europe tends to be similar to Southern Europe as leaving home is delayed (Aassve, Billari, Mazzuco, & Ongaro, 2000). A high proportion of young adults already has parental responsibilities while they still live in their parental home (Mandic, 2008). Besides cultural traditions, the inaccessibility of housing is expected to play a key role in this (Avdeev & Monnier, 2000; Badurashvili, 2007; Mandic, 2008) as well as low socio-economic resources due to the economic disruption (Ahmed & Emigh, 2005). Within this respect Avdeev and Monnier (2000) conclude: *'The housing crisis, which takes the form, among other things, of high costs, beyond the reach of most Russians, and the development of unemployment perhaps ultimately make conjugal life very difficult, whether in the context of marriage or outside it (Avdeev & Monnier, 2000, p. 30) .* Therefore we expect a higher proportion of couples with children or single parents to (still) live with their parents in Eastern Europe. A change in their partner status due to divorce or remarriage may therefore not necessarily affect the geographic proximity towards parents as at least one of the partners (i.e. the adult child) often still lives in the parental house.

### **2.3.2 Cultural differences: weak versus strong family societies**

Differences in geographic proximity between countries, and more specifically the tendency to live in multigenerational households, are often explained in terms of cultural differences (Höllinger & Haller, 1990; Reher, 1998). Within this regard, the norms versus parental and filial obligations play a key role (Konrad et al., 2002): *'European countries strongly differ in the importance attached to the family and the part family's play in support provision. It can therefore be considered likely that proximity is also valued differently' (Mulder, 2007, p. 270).*

In Eastern Europe, the ties with family are closer than in Western Europe, specifically when it comes to providing care (Badurashvili, 2007; Hank, 2007).

This reflects itself in a higher prevalence of extended households in Eastern Europe, where in Western Europe more individualistic norms prevail. The higher preferences for autonomy correspond with the tendency to live in nuclear households. Of course, the structural differences, as the socio-economic conditions, have a strong effect on the prevalence of multigenerational households within different societies as well. However, these cultural and structural explanations are not mutually exclusive (Ahmed & Emigh, 2005; Lesthaeghe & Surkyn, 2002) and may reinforce each other.

This preference for and the actual realization of nuclear households in Western Europe has often been suggested to reflect *'the decline of the family'*. More optimistic scenarios state that within Western Europe feeling of intergenerational solidarity are still present, however their manifestations are expected to have changed (Daatland & Herlofson, 2003). People seem to prefer to live at a small distance in separate households, still allowing for the exchange of support between family members (Kohli et al., 2005; Sundstöm & Johansson, 2005). If the latter is true, feelings of filial and parental obligations would have a significant effect on the geographical distance in Western Europe. However, it is the geographical distance outside the same household and not so much intergenerational co-residence which is expected to correlate with these feelings of family solidarity. On the other hand, if the decline of the family hypothesis holds true, feelings of family solidarity are expected to have little or no effect on the geographic proximity in Western Europe: *'If it is true that people place less emphasis on their families for support, residential decisions will more often be made independently of family concerns'* (Mulder & Kalmijn, 2006, p.47).

To sum up, because of the stronger family culture in Eastern Europe, we hypothesize a stronger effect of the parental and filial obligations on the geographic proximity in Russia, Georgia and Bulgaria than in France and Germany, specifically when it comes to living in multigenerational households. If the optimistic scenario holds true however, feelings of filial and parental obligations are expected to significantly affect the geographical distance, but not

the incidence of co-residence in France and in Germany as residential proximity is expected to have replaced co-residence as a manifestation of intergenerational solidarity (Kalmijn & Dykstra, 2006).

Besides these general cultural differences between the countries of these two different regions, some specific differences in the cultural norms with regard to geographic proximity and multigenerational households more specifically are at stake. In Georgia, for example, according to the tradition the youngest son should live with his parents to take care of them, whereas daughters, when they marry, move in with their husband's family (Badurashvili, 2007). A same cultural tradition would prevail in Bulgaria, however, some authors point to the fact that this is changing (Ahmed & Emigh, 2005)

### **3 Data & method**

For the analyses data from the Generations and Gender Survey (GGS) are used. The dataset is part of the Generations and Gender Programme of the UNECE. This program aims at improving the knowledge base for policy-making. It is a panel survey of a nationally representative sample of the 18-79 year-old resident population. In 2009 data from seven countries were available: Bulgaria, Russia, Georgia, France, Germany, Hungary and the Netherlands (United Nations Economic Commission for Europe, 2006). To two latter were omitted from the analyses. For Hungary the dataset did not contain full information on the variables included in the analyses. With regard to the Netherlands, the dependent variable, the geographical distance towards the parents, was measured in kilometres and not minutes, which makes it impossible to compare the different countries.

For the analyses, respondents were selected based on having at least one parent alive. The main respondents are thus the adult children. As we will run two analyses, one for the distance towards the mother and one for the distance towards the father, this results in two sub samples (see table 1 & 2). Respondents with both parents alive are included in both sub samples.

Table 1: Relative distribution of the sub sample with mother alive and distance known by country

	Mother alive and distance known	Mother not alive anymore	Missing data	<i>N</i>
Bulgaria	65,25	33,52	1,23	12858
Russia	52,13	46,00	1,87	11261
Georgia	52,67	36,98	10,35	10000
Germany	49,95	38,56	11,49	10017
France	60,93	36,15	2,92	10079

Table 2 : Relative distribution of the sub sample with father alive and distance known by country

	Father alive and distance known	Fahter not alive anymore	Missing data	<i>N</i>
Bulgaria	45,63	48,16	6,21	12858
Russia	31,41	61,90	6,69	11261
Georgia	37,16	51,93	10,91	10000
Germany	35,85	52,23	11,92	10017
France	45,10	51,65	3,25	10079

Separate analyses are run for each country. The method of multinomial logistic regression is applied. The dependent variable is a nominal variable with more than two categories: the distance towards the mother / father. This variable contains five categories: (1) living with mother / father, (2) living with mother / father and ever lived separately for more than 3 months, (3) living within a distance of 1 to 10 minutes away from mother / father, (4) living within a distance of 11-30 minutes away from mother / father and (5) living more than half an hour away from mother / father. This categorization is based on three variables: whether or not the respondent lives with his mother / father; if so,

whether he ever lived separately for more than 3 months<sup>1</sup>, and an interval variable measuring the minutes to the parental home if the respondents do not live with their mother or father. Combining this information into one nominal variable with five categories enables a joint analysis of all respondents whose mother / father is still alive (see also: Hank, 2007). Furthermore, this categorization counteracts the skew distribution of the geographical distance in minutes (Shapiro, 2003). The reference category of the variable is 'living within 1-10 minutes' from mother / father.

With regard to the independent variables, the life events of the parent(s) are measured by the marital status containing four categories: married / living together with biological father / mother, divorced, widowed and other situation. The latter includes, a.o. those who never lived with the biological father / mother. For Germany, the effect of the parental marital status on the geographic proximity cannot be calculated as the information on the geographic proximity is missing for this category. However, we do control for the other parental marital statuses in the multivariate analyses. With regard to the life events of the adult child a variable 'family type' is constructed combining information on the partner status, partner history and having children or stepchildren living in the same household or not. This results in nine categories: singles<sup>2</sup>, singles who ever divorced / separated, single parents, single parents who ever divorced / separated, a couple with no children living in the same household, a couple with no children living in the same household and where the adult child ever divorced / separated, a couple with their biological children living in the same household where the adult child ever divorced / separated, a new constellated family (i.e. a new partner and stepchildren living in the same household) and a couple with their biological children living in the same household. The latter serves as the

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<sup>1</sup> It is not possible to distinguish in the data whether the adult child has returned to the parental home or, in reverse, that the parent has moved in with the adult child.

<sup>2</sup> The respondents defined as singles have no partner living in the same household. Partner relationships outside the household are not taken into account as our main focus lies on the living arrangements.

reference category. Widowhood is not taken into account as the number of respondents in the sub samples who experienced widowhood is low. Furthermore, we are specifically interested in the effect of new family constellations, due to divorce and remarriage, on geographic proximity. As we expect strong gender differences within this respect, an interaction effect with gender and family type is included as a separate model in the analyses. The potential need for support is measured by the health status. For the adult children this is the subjective health status. For the parent(s) the objective health status, i.e. whether they are limited in their daily activities, is taken into account. If both parents are alive and living together, this dummy variable has the value '1' if at least of one the parents is limited. The other demographic correlates included are age measured in 5 categories<sup>3</sup>, gender and the number of siblings.

Three items refer to the family norms: one about the general attitude towards parental responsibility, one about the general attitude towards filial responsibility and a specific item assessing the felt obligation to co-reside with your parents when they are in need. The answers range from strongly disagree to strongly agree on a Likert-scale. For the multivariate analyses, the categories 'strongly disagree' and 'disagree' are combined due to a small numbers of respondents in these categories.

The socio-economic status is measured by home-ownership, the ability to make ends meet within the household and whether or not the respondent is working. Educational level was omitted from the analyses due to a large number of missing values for Russia. In the initial models (not shown) educational level was included. These results were compared with the model excluding educational level. No significant differences with respect to the other correlates appeared. Therefore it was opted to exclude educational level as it resulted in a significantly larger sample size for Russia.

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<sup>3</sup> As age is hypothesized to have a curvilinear effect on the geographic proximity, the interval variable is rescaled to an ordinal variable.

## 4 Results

### 4.1 Descriptive findings

Table 3 and table 4 show the relative distribution of the distance towards the mother and father by country.

Table 3: Relative distribution of distance to mother by country (Chi<sup>2</sup>=3883,7560, p<0,0001)

	Bulgaria	Russia	Georgia	Germany	France
Living in same household as mother	23,99	13,51	28,43	11,53	6,48
Living in same household as mother & ever lived separately for more than 3 months	13,58	12,95	19,77	1,80	2,18
1-10 minutes from mother's residence	17,12	13,68	7,80	23,98	25,40
11-30 minutes from mother's residence	20,54	21,07	15,65	24,84	21,32
More than 30 minutes from mother's residence	24,78	38,79	28,36	37,85	44,62
<i>N</i>	<i>8390</i>	<i>5870</i>	<i>5808</i>	<i>5004</i>	<i>6141</i>

In Bulgaria and Georgia a large proportion of the adult children (still) live with their mother / parents. In Bulgaria nearly 40% and in Georgia nearly 50% (still) lives with their mother. This proportion is much lower in Germany and France where around 13% and 9% (still) lives with their mother / parents. Russia is situated somewhere in between: 27% lives in the same household as their mother. The proportion of adult children living close to their mother on the other hand is the highest in Germany and France: around a quarter. In all countries more than 55% of the adult children live within half an hour of their mother. In Bulgaria and Georgia the proportion living nearby, within a distance of 30 minutes, is the highest: 75% and 72%. For Russia and Germany the proportions

are comparable: 61% and 62% lives within half an hour away from their mother. In France, the cumulative percentage is the lowest, around 55%.

With respect to the distance towards the father, the results are very similar (see table 4).

Table 4: Relative distribution of distance to father by country (Chi<sup>2</sup>=3035,4754, p<0,0001)

	Bulgaria	Russia	Georgia	Germany	France
Living in same household as father	25,96	11,81	29,75	11,69	6,48
Living in same household as father & ever lived separately for more than 3 months	14,08	10,12	18,13	1,50	2,15
1-10 minutes from father 's residence	15,95	14,16	7,74	29,18	25,42
11-30 minutes from father 's residence	17,39	20,77	15,18	19,79	20,46
More than 30 minutes from father 's residence	26,62	43,13	29,21	37,83	45,49
<i>N</i>	<i>5687</i>	<i>3538</i>	<i>4098</i>	<i>3592</i>	<i>4555</i>

As we are specifically interested in the effect of the family constellation on the geographic proximity and these family constellations are expected to strongly differ between the five countries, table 5 shows the distribution by family type for the population aged 18 to 79, including those whose parents do not live anymore. This variable takes into account the partner history, the current partner status and the presence of (step)children in the household, but excludes information on the presence of other household members.

Table 5: Relative distribution of the family type by country (Chi<sup>2</sup>=7088,0909, p<0,0001)

	Bulgaria	Russia	Georgia	Germany	France
Single <sup>4</sup>	24,53	19,63	31,21	24,04	21,18
Single, ever divorced / separated	2,53	8,63	1,33	7,02	11,77
Single parent	3,89	5,88	7,36	2,98	1,79
Single parent, ever divorced / separated	2,54	7,55	1,85	3,07	4,85
Couple, no children in hh	17,93	16,44	9,16	27,31	24,87
Couple, no children in hh, ever divorced / separated	0,91	3,66	0,21	3,58	4,53
Couple, own children in hh	44,17	29,76	47,70	24,37	24,24
Couple, own children in hh, ever divorced / separated	1,35	3,14	0,73	2,49	3,86
New constellated family	2,15	5,31	0,45	5,13	2,91
<i>N</i>	<i>12858</i>	<i>11261</i>	<i>11027</i>	<i>10017</i>	<i>10079</i>

In each country, the proportion of singles is quite high, between 20% and 30%. For the other types, strong differences appear. The proportion of singles who ever got divorced or separated<sup>5</sup>, is much higher in Russia, Germany and France than in Bulgaria and Georgia. The same holds true for the single parents who ever got divorced / separated, the couples with no children who ever got divorced / separated and the new constellated families. With regard to the latter, around 5% in Russia and Germany and 3% in France form a new constellated family. In Bulgaria and Georgia on the other hand, 44% and 48% forms the traditional family type of a couple with their own children. This proportion is much lower in Germany, France and also Russia. In general, the latter appears very similar to Germany and France when it comes to the family constellations.

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<sup>4</sup> As we are specifically interested in the living arrangement, the presence of a partner living outside the household is not taken into account.

<sup>5</sup> Both the dissolution of marriages and non-marital cohabiting couples are taken into account.

In all countries significant differences in relation to the geographic proximity of both the mother and the father prevail (see appendix 1, tables 1a-1j). In all countries singles more often co-reside with their parents compared to couples. This also holds true for single parents in Bulgaria, Russia and Georgia but not in Germany and France. In the latter however, adult children who experienced a divorce / separation and currently live with a new partner tend to live the furthest away, irrespective of the presence of children in the household. In Russia, the couples with no children in the household significantly live further away from their parents.

With regard to the marital status of the parents, large between-country differences prevail as well, specifically when it comes to parental divorce (see table 6). In Russia and France around a fifth of the respondents' mothers divorced or separated from the biological father. In Germany this percentage lies around 11%, whereas in Bulgaria and Georgia parental divorce is very low, almost non-existent. The results for the respondents' fathers are similar.

Table 6: Relative distribution of the marital status mother and father, if alive, by country

		Bulgaria	Russia	Georgia	Germany	France
Mother (Chi <sup>2</sup> =4496,5087, p<0,0001)	Still married / living with biological father	67,01	42,46	60,91	56,34	53,07
	Ever divorced / separated from biological father	0,71	20,18	0,14	10,93	18,11
	Other situation <sup>6</sup>	0,04	10,29	0,02	1,44	2,54
	Widowed	32,23	27,07	38,93	31,29	26,28
<i>N</i>		<i>7694</i>	<i>5723</i>	<i>5613</i>	<i>5884</i>	<i>6343</i>
Father (Chi <sup>2</sup> =2004,9544, p<0,0001)	Still married / living with biological mother	88,58	69,91	87,17	75,33	72,61
	Ever divorced / separated from biological mother	0,88	18,99	0,20	14,25	18,62
	Other situation	0,03	2,45	0,10	1,93	1,01
	Widowed	10,51	8,66	12,52	8,49	7,77
<i>N</i>		<i>5821</i>	<i>3476</i>	<i>3922</i>	<i>4407</i>	<i>4636</i>

On the bivariate level the geographic proximity significantly differs by the marital status of the parents (see appendix 1, tables 2a-2h). This holds for all countries. In Bulgaria, Russia and Georgia adult children less often live with their parents when they are widowed. An age effect can possibly explain this difference. In France, divorced mothers and specifically divorced fathers tend to live further away.

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<sup>6</sup> Never lived together or other situation

Furthermore, with respect to the feelings of parental and filial obligations the hypothesized differences between the countries are confirmed, as table 7 shows.

Table 7: Relative distribution feelings of parental and filial obligations by country, all respondents aged 18-79

		Bulgaria	Russia	Georgia	Germany	France
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> = 12904,0409, p<0,0001)	Strongly agree	9,94	9,99	24,92	6,14	15,48
	Agree	38,01	46,41	62,39	27,28	21,79
	Neither agree, nor disagree	31,26	26,65	7,22	30,73	20,97
	Disagree	18,24	15,59	5,18	26,73	19,07
	Strongly disagree	2,26	1,35	0,29	9,12	22,69
Children should take responsibility for caring for their parents when parents are in need (Chi <sup>2</sup> =8924,3499, p<0,0001)	Strongly agree	28,35	39,43	44,44	19,40	31,78
	Agree	61,46	56,32	54,27	59,12	35,36
	Neither agree, nor disagree	8,36	3,70	0,94	14,65	15,22
	Disagree	1,36	0,47	0,27	5,49	8,52
	Strongly disagree	0,21	0,09	0,08	1,35	8,92
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =12935,2570, p<0,0001)	Strongly agree	24,69	21,33	36,38	9,43	19,91
	Agree	54,78	48,82	54,32	34,66	22,28
	Neither agree, nor disagree	16,67	21,05	6,18	33,14	24,65
	Disagree	3,08	8,13	2,86	17,01	15,26
	Strongly disagree	0,37	0,68	0,26	5,75	17,90

The feelings of parental obligations are much stronger in Bulgaria, Russia and, specifically, Georgia compared to Germany and France. Where in the Eastern European countries a minority disagrees with the item referring to the parental obligation to adjust their own lives in order to help their children, this percentage is much higher in Germany and France. With respect to the filial obligations the same split appears. In the Eastern European countries 90% or more agrees with the item that children should take responsibility for their parents when they are

in need, whereas in Germany and especially in France this is lower: around 80% and 67%.

The answers to the item referring to the obligation to live with your parents when they can no longer look after themselves significantly differ between the countries as well. A large majority of the Eastern European respondents agrees with this item. In the Western European countries however a minority (44% in Germany and 42% in France) agrees.

In Bulgaria, stronger feelings of filial and parental obligations go hand in hand with a smaller geographic distance, both in terms of co-residence and living close by. In Russia and Georgia there are no or little significant differences. In Germany and France however strong differences according to the normative beliefs prevail, specifically for the relationship between filial obligations and living close by: stronger feelings of filial obligation imply a shorter distance (see appendix 1, tables 3a-3j).

#### **4.2 Multivariate analyses**

Next we turn to the results of the multivariate analyses. In the first multivariate analysis the distance towards the biological mother serves as the dependent variable (see appendix 2, table 2a). Separate models are run for each country. An additional model includes the interaction effect of gender and family type (see appendix 3, table 3c). The reference category is formed by those respondents living 1 to 10 minutes away from their mother. In general, the demographic, cultural and socio-economic correlates explain a large proportion of the variation in the geographic proximity in all countries (see appendix 2, table 2c).

Our main attention goes to the effects of the family constellations of both the parent and the adult child and the feelings of filial and parental responsibility on geographic proximity (see appendix 2, table 2a).

With respect to the marital status of the mother, little differences occur. In Bulgaria and Georgia adult children less often live with their mother when their parents are still married or living together compared to when she is widowed, whereas in France adult children tend to live closer to their mother when she is widowed<sup>7</sup>. In Russia the marital status of the mother exerts no effect on the geographical distance.

The family constellation of the adult child however strongly affects the geographic proximity in all countries. In all countries, singles more often live with their mother compared to couples with their biological children living in the household. The same holds true for singles who ever got divorced or separated. On the other hand, singles live further away from their mother than couples with children, except in Georgia. With respect to the gender differences in the effect of the family constellation (see appendix 3, table 3a), the results show that single men less often live with their mother than single women in Bulgaria, Georgia and Germany.

Single parenthood also goes hand in hand with co-residence in all countries, except in Germany (see appendix 2, table 2a). This holds for both categories of co-residence: those who still live with their mother and those who ever lived separately from their mother for more than 3 months. No gender differences occur: both single mothers and single fathers significantly more co-reside with their mother than a couple with children (see appendix 3, table 3a). On the other hand, Bulgarian and Russian single parents who ever got divorced or separated live further away from their mother when they do not co-reside.

With respect to the main effect of the new family constellations on geographic proximity, clear significant differences are only apparent in Germany and France (see appendix 2, table 2a). In both countries adult children who ever got

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<sup>7</sup> Due to missing data for the geographic proximity of divorced parents in Germany, no results for the marital status of the parents for Germany can be calculated.

divorced or separated and currently live with a new partner live further away from their mother. This holds for the couples without children in the household, but also for couples with children and / or stepchildren living in the same housing unit. In Russia this only applies for the first. On the other hand, in Russia and Germany these repartnered adult children, with no children present in the household, significantly more co-reside with their mother. No revealing gender differences arise within this respect (see appendix 3, table 3a).

The feelings of filial obligation have little effect on the geographic proximity. In Bulgaria, respondents with low feelings of filial obligation less often co-reside with their mother and tend to live further away from their mother (see appendix 2, table 2a). The latter also applies for French respondents. For Germany however, those who live far away from their mother have stronger feelings of filial responsibility than those who live within 10 minutes away from their mother. In Russia and Georgia filial responsibility exerts no effect on the geographic proximity.

In Bulgaria and Germany adult children with lower feelings of parental responsibility live further away from their mother compared to those living close by. With regard to the specific question whether children should have their parents to live with them when parents can no longer look after themselves, people who live with their mother tend to agree more with this item in all countries. This applies for adult children still living with their mother in Russia, Georgia and France and, to a lesser degree, for Bulgarian and German adult children living with their mother but ever lived separately for more than 3 months.

In Germany and France on the other hand, adult children who live within 11 to 30 minutes from their mother significantly disagree more with this item than adult children living close to their mother. The same holds true for German respondents living more than 30 minutes away from their mother.

With respect to the other demographic correlates (see appendix 2, table 2a), men more often live with their mother in Bulgaria and Georgia. They also tend to live closer to their mother in Bulgaria, Georgia, Russia and also Germany. The health status of both the mother and the adult child exerts little significant effect on the geographic proximity. In France, when the mother / father has a physical disability, adult children live closer. Younger adult children more often (still) live with their mother in all countries, whereas older adults live further away in Georgia and Germany. The hypothesized sibling effect is also apparent. In all countries, except Germany, respondents with a high number of siblings less often live with their mother. In France adult children with a high number of siblings live further away as well. However, in Bulgaria the opposite is true.

In terms of the socio-economic status, a poor socio-economic status goes hand in hand with co-residence in Bulgaria. In all countries, except for Russia, adult children more often live with their parents if the house is owned by one of the household members. In Germany, France and Russia tenants significantly live further away from their mother. On the one hand, adult children who are not at work more often live with their mother in Georgia, Germany and France. This also holds true for Bulgarian, German and French adult children who ever lived separately for more than three months. On the other hand, adult children who are not working live further away in Georgia, Germany and France.

When we turn to the results for the distance towards the father (see appendix 4 and 5), there appear little differences compared to the results for the geographic proximity of the mother. In France, divorced fathers live further away from their children than widowed fathers. No significant differences between widowed and married / cohabiting fathers were found. Where single parents in France more often (still) live with their mother, this is not the case for co-residence with their father. In addition, the negative effects of the new family constellations on the geographic proximity of the father are smaller in France and Germany. In Germany, only couples living as new constellated families live further away,

whereas in France this only holds true for repartnered men and women with no children living in the same household.

## **5 Discussion**

In general, as expected the five countries in this study strongly differ when it comes to the geographic proximity between adult children and their parents. Multigenerational co-residence is much more common in the Eastern European countries than in France and Germany (Ahmed & Emigh, 2005; Hank, 2007). However, this does not necessarily mean that adult children also live further away from their parents in the Western European countries as the proportion living within 10 minutes from their parents is the highest in these countries. At first sight this supports the thesis of residential proximity in stead of co-residence as an expression of intergenerational support in the Western European countries (Kalmijn & Dykstra, 2006). Strong differences between the different countries however remain as the proportion living within 30 minutes from their parents is the highest in Bulgaria and Georgia. However, in Russia, Germany and France more than 55% of the adult children also lives within a travelling distance of 30 minutes from their mother which points to an intact opportunity structure for intergenerational support in both the Eastern and the Western European countries for the majority of people (Hank, 2007).

The question is whether or not this geographic proximity can be considered as an expression of intergenerational solidarity. To gain more insight on the intergenerational dimension of the geographic proximity, the effect of filial and parental responsibility norms on the geographical distance was calculated. According to the pessimistic scenario there is expected to be little or no effect of these norms on geographic proximity: geographic proximity would not reflect family solidarity. This would specifically hold for the Western European countries where the incidence of multigenerational households is much lower than in Eastern Europe and family solidarity norms are expected to be less strong. However, the more optimistic view states that living nearby has replaced co-residence: family members prefer living autonomously, but at a small distance

still allowing for support (Kohli et al., 2005). Within this view, family norms are expected to correlate with geographic proximity.

Comparing the different countries, it is first of all important to note that the feelings of filial and parental responsibility are much stronger in the Eastern than in the Western European countries. As generally assumed the Eastern European countries have a stronger family culture as the Western European countries (Hank, 2007; Reher, 1998). In addition, in these countries strong feelings of family solidarity, and in specific parental responsibility, positively correlate with multigenerational co-residence. However, the family norms do significantly affect the geographic proximity in Germany and France as well. Of specific interest is the fact that the respondents agreeing with the item referring to the obligation to co-reside with parents when these are in need not only more often live with them but live *closer* to their parents as well in Germany and France. Here again, this result supports the thesis that living nearby has replaced co-residence as an expression of intergenerational solidarity in Germany and France. In these countries the item possibly serves as a proxy for the felt obligation to live close to parents when they are in need.

In general, both in the Eastern and, to a smaller extent, in the Western European countries the geographic proximity between adult children and parents appears to form an intact opportunity structure for intergenerational support as family norms and the geographical distance between adult children and their parents significantly correlate, irrespective of the other demographic and socio-economic features on the individual level. This supports the thesis that apart from structural features as housing tenure and the socio-economic resources, cultural features as the family norms correlate with the actual geographic proximity (Bordone, 2009; Tomassini et al., 2004). However, their manifestation strongly differs according to the spatial context. With regard to the differences between the two regions in terms of geographic proximity, it is nevertheless important to refer to the structural differences on the macro level which may account for larger geographical distances and less multigenerational co-residence in Germany

and France as well, apart from a weaker family culture. A stronger welfare regime, better housing conditions and more welfare in general may account for this (Saraceno & Keck, 2008).

In addition, in all countries a minority lives far away from their parents. As the geographic proximity forms the basic opportunity structure for intergenerational support it is important to understand who lives further away (Glaser & Tomassini, 2000) and whether or not these are vulnerable groups? Explicit attention went to the effect of the family constellation of both the parents and the adult child on the geographic proximity. Trends in divorce, remarriage and cohabitation generally raise concerns about the effects of this increasing diversity in family constellations on intergenerational solidarity (Komter & Vollebergh, 2002).

In general, the family constellation appears a strong determinant of the geographic proximity. However, the effect is much stronger for the family constellation of the adult child compared to that of the parents. Adult children live closer to their widowed mother, compared to the other marital statuses in France, whereas in Bulgaria and Georgia they more often co-reside with them. The increasing need for support of the widowed mother may explain this smaller distance (Michielin & Mulder, 2007). In addition, divorced fathers live further away from their adult children in France. This confirms the general finding that parental divorce is specifically negative for the relationship with the father (Peter A. Rogerson et al., 1993). In Eastern Europe no effect of parental divorce on geographic proximity was found. However, we hypothesized a stronger effect of parental divorce in these countries due to more traditional family norms and values (Kalmijn, 2008). The number of respondents who ever experienced a parental divorce is very low in Bulgaria and Georgia. Therefore the analyses do not allow any valid conclusions within this respect. For Russia however, where this number is much higher (Avdeev & Monnier, 2000), our results do not confirm the hypothesis. The parental marital status in general appears to be of little importance for the geographic proximity in Russia. For Germany we were

not able to draw any conclusions due to missing information for the divorced parents.

The family constellation of the adult child on the other hand has a strong effect on the geographic proximity in all countries. For singles, the results confirm previous findings from other studies. On the one hand singles more often (still) live with their parents, which can be explained by their stage of life (Hank, 2007). On the other hand, when living separately, they live further away. This is often attributed to the fact that singles have fewer constraints when it comes to their residential choice (Michielin & Mulder, 2007).

As little is known about the relationship between new family constellations and the geographical distance towards parents, we specifically distinguished between these different family constellations in our analyses. Not only the effect of adult children's divorce or separation but also the presence of children and stepchildren in the household and gender differences were accounted for. Within this respect, our results confirm the hypothesis that single parenthood goes hand in hand with a larger incidence of multigenerational co-residence. In all countries, except Germany, single parents more often live with their parents. The need for support may trigger co-residence in case of single parenthood (Ahmed & Emigh, 2005; Bumpass & Raley, 1995).

Adult children who ever divorced or separated and currently live with a new partner do not live further away or less often with their parents in the Eastern European countries. In Germany and France however, adult children who ever got divorced or separated and started a new partner relationship generally live at a greater distance, specifically from their mother. For these respondents, a new partner relationship may have enhanced new opportunities and therefore triggered spatial moves (Feijten & van Ham, 2007). On the macro level however, we expected to find a larger disruptive effect of adult children's divorce and repartnering in the Eastern European countries than in the Western European countries due to more traditional views on the family in these countries (Kalmijn,

2008), specifically in Bulgaria and Georgia who are expected to be strongly family centred (Badurashvili). However the Eastern European countries experienced large changes in terms of family composition during the past decades (Thornton & Philipov, 2009) which possibly leads to convergence with Western Europe in terms of tolerance towards new family constellations. Furthermore, as mentioned in the theoretical framework, multigenerational cohabitation does not end with the start of a conjugal union (Avdeev & Monnier, 2000). The housing market is expected to play a key role in this. Therefore we can assume that this also holds true for new partner relationships.

In general, an adult child's divorce does not disrupt the intergenerational solidarity in terms of geographic proximity in Bulgaria, Georgia and Russia. For single parents, who are expected to have greater needs, the effects are positive. In addition, the marital history of the parents has no negative effect on the geographical proximity in the Eastern European countries. In the Western European countries however, only single parents in France more often live with their parents. In the other cases divorce and repartnering often leads to a larger geographical distance, irrespectively of the presence of children in the household (Tomassini et al., 2003). As these family constellations are expected to win ground in the near future, this raises concerns about the availability of intergenerational support in Germany and France when needed, both for the parents *and* the adult children. This holds specifically for mothers, as the negative effects are the strongest for the distance towards the mother.

Overall the GGS-data enabled a comparison of three Eastern European countries with two Western European countries. Furthermore, detailed information on the partner status and history of both the adult child and the parents generated new insights on the effect of new family constellations on geographic proximity (Feijten & van Ham, 2007). The same holds true for the correlation between family norms and geographic proximity (Bordone, 2009). However, there are some limitations to this study. First of all, the cross-sectional nature of our data makes it impossible to draw any conclusions in terms of causality. This

specifically holds for the effect of family solidarity norms on the geographic proximity. On the one hand, people with strong family norms may choose to live close to or live with their parents. On the other hand, people who co-reside or live close to their parents may be more inclined to agree with these items or feel more obliged to support their parents (Mulder & van de Meer, 2009). Because of the cross-sectional nature of the data we were not able to test whether the residential choice actually depends on feelings of family obligations. As the GGS is designed as a longitudinal panel, future analyses can test for causality within this respect. Secondly, comparable datasets were only available for five countries. Therefore we were not able to run multilevel analyses. In the future, datasets for other European countries will be available. As there is expected to be a large variation between countries in the different European regions, both in terms of geographic proximity, but also with respect to family solidarity and family constellations, the inclusion of more European countries from different regions can also add to our understanding of the intergenerational dimension of geographic proximity. In conclusion, it is important to note that we focused on one particular family bond: between parents and their adult children. However, this is not the whole story as other family and network members might be living closer and therefore offer an additional opportunity structure for support (Mulder & van de Meer, 2009). Nevertheless, the parent-child dyad is an important relationship in terms of intergenerational solidarity, specifically in the ageing society (Hagestad & Herlofson, 2005).

## **6 Conclusion**

Our results stress the endogenous nature of geographic proximity (Tomassini et al., 2003). Most researches on intergenerational support treat the geographic proximity as an independent variable, as a determinant of the level of intergenerational support. Both in the Eastern *and* in the Western European countries however demographic and socio-economic features on the individual level explain a large part of the geographic proximity between adult children and their parents among the population. In addition, in both regions feelings of family solidarity correlate with the geographic proximity, irrespective of other features.

The geographic proximity itself can be considered as a feature of intergenerational solidarity (Bengtson & Roberts, 1991). Studies on intergenerational support have to take into account this endogenous nature.

As the geographic proximity and the family in general knew some major changes during the past decades, several studies raised concerns about the level of intergenerational solidarity between family members. Specifically for Germany and France, where the proportion living in multigenerational households declined drastically, the *'decline of the family'* has often been predicted. The past decade, several studies however have shown that intergenerational solidarity is still present in these countries, however the nature of solidarity and actual support changed (Attias-Donfut et al., 2005; Daatland & Herlofson, 2003). This study, in which countries from two European regions who strongly differ in terms of geographic proximity between family members, were compared, adds to this more optimistic view with respect to the geographic proximity between family members (see also Bordone, 2009). The geographic proximity between parents and their adult children in the Western European countries can (still) be considered as a dimension of intergenerational solidarity as it offers an intact opportunity structure for support, although its nature is different compared to the Eastern European countries: living close to each other in stead of multigenerational co-residence (Bordone, 2009; Kalmijn & Dykstra, 2006).

However, some caution is needed as those adult children living in new family constellations live further away from their parents in Germany and France. This raises concerns about the level of intergenerational support for now but also in the near future, both for older parents *and* the adult children as intergenerational support is reciprocal. For Bulgaria, Russia and Georgia however, this is not the case. Future research on intergenerational support has to keep in mind this diversity.

In general, it remains to be seen what this means in terms of actual support between parents and their adult children. Our future research aims to detect the

intermediate effect of geographic proximity between the family constellations and family norms on the one hand and the actual level of intergenerational support on the other hand.

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## 7 Bibliography

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## 8 Appendices

### 8.1 Appendix 1. Descriptive results

#### 8.1.1 Geographic proximity by family type adult child

Table 1a: Relative distribution geographic proximity of mother by family type adult child, Bulgaria (Chi<sup>2</sup>=3808,3871, p<0,0001)

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Single	58,83	25,80	2,88	4,27	8,22
Single, ever divorced	19,90	39,32	9,71	11,17	19,90
Single parent	23,94	12,77	14,36	15,96	32,98
Single parent, ever divorced	20,23	28,79	16,34	15,18	19,46
Couple, no children in hh	13,82	10,66	19,34	23,55	32,63
Couple, no children in hh, ever divorced	6,25	6,25	25,00	14,58	47,92
Couple, own children in hh	7,55	5,63	24,92	30,12	31,78
Couple, own children in hh, ever divorced	5,13	5,13	23,93	27,35	38,46
New constellated family	7,33	3,66	26,70	26,18	36,13
<i>N</i>	<i>2013</i>	<i>1139</i>	<i>1437</i>	<i>1721</i>	<i>2064</i>

Table 1b: Relative distribution geographic proximity of mother by family type adult child, Russia (Chi<sup>2</sup>=1930,6023, p<0,0001)

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Single	45,62	20,05	2,98	4,97	26,38
Single, ever divorced	10,82	35,76	8,47	13,65	31,29
Single parent	14,35	20,68	11,81	21,94	31,22
Single parent, ever divorced	7,43	21,69	14,46	17,87	38,55
Couple, no children in hh	5,50	9,00	17,83	19,33	48,33
Couple, no children in hh, ever divorced	4,64	11,26	9,93	21,85	52,32
Couple, own children in hh	5,11	4,98	18,06	29,27	42,58
Couple, own children in hh, ever divorced	1,83	9,13	16,89	27,85	44,29
New constellated family	3,24	6,73	17,96	29,93	42,14
<i>N</i>	<i>793</i>	<i>760</i>	<i>803</i>	<i>1237</i>	<i>2276</i>

Table1c: Relative distribution geographic proximity of mother by family type adult child, Georgia (Chi<sup>2</sup>=2387,5517, p<0,0001)

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Single	64,24	27,80	1,02	1,41	5,54
Single, ever divorced	25,00	48,61	5,56	8,33	12,50
Single parent	9,91	13,06	9,91	22,97	44,14
Single parent, ever divorced	23,58	45,53	6,50	9,76	14,63
Couple, no children in hh	19,77	19,77	10,17	18,90	31,40
Couple, no children in hh, ever divorced	16,67	16,67	16,67	33,33	16,67
Couple, own children in hh	11,62	14,15	11,12	22,87	40,24
Couple, own children in hh, ever divorced	2,56	20,51	12,82	20,51	43,59
New constellated family	9,68	19,35	12,90	25,81	32,26
<i>N</i>	<i>1651</i>	<i>1148</i>	<i>453</i>	<i>909</i>	<i>1647</i>

Table 1d: Relative distribution geographic proximity of mother by family type adult child, Germany (Chi<sup>2</sup>=1063,6694, p<0,0001)

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Single	35,75	4,39	12,06	14,04	33,76
Single, ever divorced	6,65	3,63	21,15	27,79	40,79
Single parent	7,65	1,18	30,00	24,12	37,06
Single parent, ever divorced	3,31	0,55	28,73	29,83	37,57
Couple, no children in hh	4,47	1,83	24,89	29,59	39,22
Couple, no children in hh, ever divorced	6,86	0,00	20,00	29,71	43,43
Couple, own children in hh	3,54	0,31	31,97	27,75	36,44
Couple, own children in hh, ever divorced	3,11	0,00	24,22	27,33	45,34
New constellated family	2,34	0,88	23,68	26,90	46,20
<i>N</i>	<i>577</i>	<i>90</i>	<i>1200</i>	<i>1243</i>	<i>1894</i>

Table 1e: Relative distribution geographic proximity of mother by family type adult child, France (Chi<sup>2</sup>=1718,2737, p<0,0001)

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Single	29,43	6,41	13,61	11,79	38,77
Single, ever divorced	2,01	5,16	23,07	21,35	48,42
Single parent	1,10	1,10	38,46	18,68	40,66
Single parent, ever divorced	0,54	0,82	33,51	22,89	42,23
Couple, no children in hh	0,38	0,76	27,34	25,07	46,45
Couple, no children in hh, ever divorced	0,00	0,39	20,93	23,64	55,04
Couple, own children in hh	0,27	0,16	32,43	23,31	43,84
Couple, own children in hh, ever divorced	0,00	0,33	21,57	28,43	49,67
New constellated family	0,00	0,00	23,11	26,67	50,22
<i>N</i>	<i>398</i>	<i>134</i>	<i>1560</i>	<i>1309</i>	<i>2740</i>

Table 1f: Relative distribution geographic proximity of father by family type adult child, Bulgaria (Chi<sup>2</sup>=2588,7721, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Single	56,71	25,12	4,31	3,13	10,72
Single, ever divorced	18,55	37,10	10,48	12,90	20,97
Single parent	24,47	18,09	13,83	17,02	26,60
Single parent, ever divorced	14,57	30,46	19,21	13,91	21,85
Couple, no children in hh	15,35	11,40	19,08	19,74	34,43
Couple, no children in hh, ever divorced	7,41	7,41	29,63	3,70	51,85
Couple, own children in hh	7,86	5,25	23,76	27,87	35,26
Couple, own children in hh, ever divorced	1,61	4,84	22,58	19,35	51,61
New constellated family	8,00	3,20	24,00	23,20	41,60
<i>N</i>	<i>1523</i>	<i>826</i>	<i>929</i>	<i>1008</i>	<i>1518</i>

Table 1g: Relative distribution geographic proximity of father by family type adult child, Russia (Chi<sup>2</sup>=1122,8385, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Single	38,53	17,83	7,36	4,99	31,30
Single, ever divorced	8,74	27,67	8,25	13,11	42,23
Single parent	8,57	16,19	16,19	20,00	39,05
Single parent, ever divorced	3,75	19,58	11,25	20,42	45,00
Couple, no children in hh	4,50	6,01	16,82	19,82	52,85
Couple, no children in hh, ever divorced	3,53	7,06	10,59	10,59	68,24
Couple, own children in hh	3,62	3,48	17,63	29,99	45,27
Couple, own children in hh, ever divorced	0,88	4,42	15,93	31,86	46,90
New constellated family	1,23	5,76	20,99	26,34	45,68
<i>N</i>	<i>418</i>	<i>358</i>	<i>502</i>	<i>734</i>	<i>1522</i>

Table 1h: Relative distribution geographic proximity of father by family type adult child, Georgia (Chi<sup>2</sup>=1822,8198, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Single	64,51	25,44	1,97	1,12	6,96
Single, ever divorced	21,05	52,63	5,26	7,89	13,16
Single parent	8,57	19,05	5,71	20,95	45,71
Single parent, ever divorced	13,43	40,30	11,94	8,96	25,37
Couple, no children in hh	19,37	13,51	9,01	20,72	37,39
Couple, no children in hh, ever divorced	0,00	50,00	25,00	25,00	0,00
Couple, own children in hh	10,57	12,39	11,25	23,51	42,28
Couple, own children in hh, ever divorced	0,00	28,57	4,76	19,05	47,62
New constellated family	0,00	17,39	17,39	34,78	30,43
<i>N</i>	<i>1219</i>	<i>743</i>	<i>317</i>	<i>622</i>	<i>1197</i>

Table 1i: Relative distribution geographic proximity of father by family type adult child, Germany (Chi<sup>2</sup>=693,8741, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Single	33,26	3,61	15,86	10,72	36,54
Single, ever divorced	7,78	3,89	28,33	22,22	37,78
Single parent	4,84	0,81	32,26	21,77	40,32
Single parent, ever divorced	3,33	0,00	37,50	25,00	34,17
Couple, no children in hh	5,18	1,25	31,07	23,75	38,75
Couple, no children in hh, ever divorced	8,33	0,00	27,78	25,00	38,89
Couple, own children in hh	3,62	0,33	36,46	23,62	35,97
Couple, own children in hh, ever divorced	4,31	0,00	34,48	13,79	47,41
New constellated family	1,97	0,79	31,50	20,87	44,88
<i>N</i>	<i>420</i>	<i>54</i>	<i>1048</i>	<i>711</i>	<i>1358</i>

Table 1j: Relative distribution geographic proximity of father by family type adult child, France (Chi<sup>2</sup>=1196,7510, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Single	26,65	5,35	15,76	10,60	41,64
Single, ever divorced	1,60	7,21	22,85	20,44	47,90
Single parent	1,56	1,56	39,06	20,31	37,50
Single parent, ever divorced	0,41	1,22	32,11	24,39	41,87
Couple, no children in hh	0,46	0,30	24,24	24,54	50,46
Couple, no children in hh, ever divorced	0,00	0,00	14,62	26,32	59,06
Couple, own children in hh	0,13	0,00	32,86	23,48	43,52
Couple, own children in hh, ever divorced	0,43	0,00	26,81	23,40	49,36
New constellated family	0,00	0,00	26,45	23,87	49,68
<i>N</i>	<i>295</i>	<i>98</i>	<i>1158</i>	<i>932</i>	<i>2072</i>

### 8.1.2 Geographic proximity by marital status parents

Table 2a: Relative distribution geographic proximity of mother by marital status mother, Bulgaria ( $\chi^2=1894,2451$ ,  $p<0,0001$ )

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Still married / living with biological mother	26,39	13,54	17,70	20,09	22,29
Ever divorced / separated from biological mother	.	.	.	.	.
Other situation	.	.	.	.	.
Widowed	17,97	13,31	17,60	22,10	29,02
<i>N</i>	1838	1046	1345	1579	1863

Table 2b: Relative distribution geographic proximity of mother by marital status mother, Russia ( $\chi^2=1835,0785$ ,  $p<0,0001$ )

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Still married / living with biological mother	15,05	9,44	14,06	22,55	38,91
Ever divorced / separated from biological mother	14,09	16,00	14,17	21,30	34,43
Other situation	35,90	51,79	2,22	2,91	7,18
Widowed	0,00	0,00	18,29	27,21	54,49
<i>N</i>	737	716	798	1227	2219

Table 2c: Relative distribution geographic proximity of mother by marital status mother, Georgia (Chi<sup>2</sup>=111,9403, p<0,0001)

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Still married / living with biological mother	32,72	18,76	6,83	15,22	26,47
Ever divorced / separated from biological mother	.	.	.	.	.
Other situation	.	.	.	.	.
Widowed	20,47	21,39	9,50	16,92	31,72
<i>N</i>	1564	1107	439	887	1591

Table 2d: Relative distribution geographic proximity of mother by marital status mother, France (Chi<sup>2</sup>=735,1682, p<0,0001)

	Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
Still married / living with biological mother	8,54	2,09	24,77	20,50	44,11
Ever divorced / separated from biological mother	6,68	2,58	21,10	20,66	48,98
Other situation	29,87	24,68	9,09	9,09	27,27
Widowed	0,00	0,00	31,13	24,53	44,34
<i>N</i>	395	134	1560	1309	2740

Table 2e: Relative distribution geographic proximity of father by marital status father, Bulgaria (Chi<sup>2</sup>=140,8275, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Still married / living with biological father	29,46	15,11	14,98	16,87	23,58
Ever divorced / separated from biological father	.	.	.	.	.
Other situation	.	.	.	.	.
Widowed	16,58	10,02	17,57	24,63	31,20
<i>N</i>	1491	774	797	927	1277

Table 2f: Relative distribution geographic proximity of father by marital status father, Russia (Chi<sup>2</sup>=552,9539, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Still married / living with biological father	15,05	9,44	14,06	22,55	38,91
Ever divorced / separated from biological father	4,43	9,51	15,41	15,90	54,75
Other situation	25,88	70,59	1,18	1,18	1,18
Widowed	0,00	0,00	17,85	28,62	53,54
<i>N</i>	414	347	489	730	1438

Table 2g: Relative distribution geographic proximity of father by marital status father, Georgia (Chi<sup>2</sup>=82,1721, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Still married / living with biological father	32,72	18,76	6,83	15,22	26,47
Ever divorced / separated from biological father	.	.	.	.	.
Other situation	.	.	.	.	.
Widowed	15,80	17,05	8,11	18,09	40,96
<i>N</i>	1199	725	272	606	1102

Table 2h: Relative distribution geographic proximity of father by marital status father, France (Chi<sup>2</sup>=329,4486, p<0,0001)

	Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
Still married / living with biological father	7,98	2,00	26,66	20,97	42,39
Ever divorced / separated from biological father	1,00	2,75	19,60	17,35	59,30
Other situation	45,24	21,43	4,76	7,14	21,43
Widowed	0,00	0,00	29,30	24,23	46,48
<i>N</i>	295	98	1158	932	2072

### 8.1.3 Geographic proximity by family norms

Table 3a: Relative distribution geographic proximity of mother by family norms, Bulgaria

		Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> = 67,3410, p<0,0001)	Strongly disagree	16,83	13,94	14,42	22,60	32,21
	Disagree	20,04	13,79	18,00	20,59	27,58
	Neither agree, nor disagree	23,29	12,56	17,06	22,39	24,70
	Agree	25,81	14,71	15,81	20,00	23,67
	Strongly agree	27,69	13,03	21,18	17,04	21,05
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> = 62,0459, p<0,0001)	Strongly disagree	14,29	7,14	7,14	14,29	57,14
	Disagree	12,50	9,38	19,79	23,96	34,38
	Neither agree, nor disagree	23,79	11,52	14,70	24,70	25,30
	Agree	23,69	13,07	17,03	21,40	24,81
	Strongly agree	24,74	15,77	17,95	17,61	23,93
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> = 62,3542, p<0,0001)	Strongly disagree	22,73	9,09	18,18	4,55	45,45
	Disagree	17,15	10,04	17,57	26,78	28,45
	Neither agree, nor disagree	22,70	10,50	16,91	22,08	27,80
	Agree	23,70	13,50	17,07	20,91	24,82
	Strongly agree	25,72	16,46	17,37	18,53	21,91

Table 3b: Relative distribution geographic proximity of mother by family norms, Russia

		Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =14,5239, n.s.)	Strongly disagree	10,99	12,09	9,89	24,18	42,86
	Disagree	11,42	14,25	12,79	21,37	40,18
	Neither agree, nor disagree	14,04	12,84	13,80	20,55	38,76
	Agree	14,00	12,97	14,24	21,28	37,51
	Strongly agree	13,97	10,58	13,17	20,76	41,52
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =22,8741, n.s.)	Strongly disagree	16,67	16,67	0,00	16,67	50,00
	Disagree	4,76	9,52	0,00	38,10	47,62
	Neither agree, nor disagree	11,42	12,33	13,70	21,46	41,10
	Agree	12,78	12,99	14,57	21,90	37,75
	Strongly agree	14,80	12,99	12,54	19,70	39,97
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =35,6502, p=0,0032)	Strongly disagree	10,81	10,81	10,81	29,73	37,84
	Disagree	11,06	8,13	13,09	22,35	45,37
	Neither agree, nor disagree	14,05	12,75	14,22	20,75	38,24
	Agree	12,86	13,40	13,78	22,49	37,47
	Strongly agree	15,27	13,91	13,26	17,44	40,11

Table 3c: Relative distribution geographic proximity of mother by family norms, Georgia

		Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =21,6818, n.s.)	Strongly disagree	42,11	26,32	0,00	10,53	21,05
	Disagree	28,08	23,03	7,26	14,51	27,13
	Neither agree, nor disagree	34,44	19,95	5,70	12,83	27,08
	Agree	27,65	20,18	7,91	16,04	28,23
	Strongly agree	28,53	17,81	8,37	15,83	29,45
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =24,0694, n.s.)	Strongly disagree	0,00	0,00	0,00	50,00	50,00
	Disagree	35,71	14,29	0,00	14,29	35,71
	Neither agree, nor disagree	18,87	16,98	18,87	7,55	37,74
	Agree	28,52	19,13	7,67	16,56	28,12
	Strongly agree	28,49	20,67	7,78	14,66	28,41
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =24,9285, n.s.)	Strongly disagree	7,69	46,15	0,00	23,08	23,08
	Disagree	23,18	15,23	10,60	16,56	34,44
	Neither agree, nor disagree	27,51	20,63	6,02	12,32	33,52
	Agree	28,17	19,53	7,98	15,93	28,39
	Strongly agree	29,49	20,14	7,66	15,66	27,04

Table 3d: Relative distribution geographic proximity of mother by family norms, Germany

		Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =35,6612, p=0,0032)	Strongly disagree	6,96	1,30	27,39	25,00	39,35
	Disagree	10,99	1,73	23,36	25,09	38,84
	Neither agree, nor disagree	12,10	1,39	25,33	25,58	35,60
	Agree	13,07	2,43	22,45	25,21	36,85
	Strongly agree	10,94	3,13	21,09	19,14	45,70
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =48,2452, p<0,0001)	Strongly disagree	7,02	0,00	24,56	28,07	40,35
	Disagree	9,36	0,37	25,47	20,97	43,82
	Neither agree, nor disagree	8,64	0,71	23,94	25,07	41,64
	Agree	11,84	1,65	23,62	25,81	37,08
	Strongly agree	13,52	3,48	24,90	22,85	35,25
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =113,3048, p<0,0001)	Strongly disagree	6,56	0,41	23,36	28,28	41,39
	Disagree	5,92	0,92	24,21	26,84	42,11
	Neither agree, nor disagree	10,50	1,35	23,87	24,34	39,94
	Agree	13,77	1,97	23,26	26,10	34,90
	Strongly agree	17,11	4,95	27,42	17,73	32,78

Table 3e: Relative distribution geographic proximity of mother by family norms, France

		Living in same household as mother	Living in same household as mother & ever lived separately for more than 3 months	1-10 minutes from mother's residence	11-30 minutes from mother's residence	More than 30 minutes from mother's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =34,7611, p=0,0043)	Strongly disagree	7,18	2,09	25,02	21,16	44,55
	Disagree	7,42	2,10	22,79	20,91	46,78
	Neither agree, nor disagree	6,93	2,74	27,02	21,69	41,63
	Agree	4,56	1,52	25,11	20,88	47,93
	Strongly agree	5,03	2,45	28,94	22,01	41,58
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =87,2134, p<0,0001)	Strongly disagree	1,93	1,16	29,01	25,53	42,36
	Disagree	2,96	1,18	25,44	26,43	43,98
	Neither agree, nor disagree	5,54	1,30	26,60	23,02	43,54
	Agree	7,61	1,85	24,03	20,34	46,17
	Strongly agree	7,68	3,59	25,71	18,95	44,06
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =132,5530, p<0,0001)	Strongly disagree	1,77	0,99	27,48	28,15	41,61
	Disagree	5,26	1,34	23,04	22,37	47,99
	Neither agree, nor disagree	5,56	1,91	27,90	20,86	43,77
	Agree	8,43	2,76	22,72	20,72	45,37
	Strongly agree	9,74	3,33	25,89	16,64	44,40

Table 3f: Relative distribution geographic proximity of father by family norms, Bulgaria

		Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =59,4996, p<0,0001)	Strongly disagree	18,18	15,38	14,69	16,78	34,97
	Disagree	21,38	14,13	17,05	18,73	28,71
	Neither agree, nor disagree	25,42	12,91	16,06	18,47	27,14
	Agree	27,67	15,24	14,96	17,30	24,83
	Strongly agree	33,71	14,67	18,29	12,57	20,76
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =52,5216, p<0,0001)	Strongly disagree	8,33	0,00	0,00	8,33	83,33
	Disagree	15,15	7,58	22,73	21,21	33,33
	Neither agree, nor disagree	22,96	13,09	16,74	20,60	26,61
	Agree	26,06	14,04	15,28	18,48	26,14
	Strongly agree	27,42	15,38	17,36	14,14	25,69
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =42,1258, p=0,0004)	Strongly disagree	28,57	7,14	7,14	0,00	57,14
	Disagree	20,13	9,74	18,83	20,13	31,17
	Neither agree, nor disagree	23,79	12,06	16,67	19,19	28,29
	Agree	25,75	14,24	15,83	18,19	26,00
	Strongly agree	28,84	16,22	16,01	14,53	24,40

Table 3g: Relative distribution geographic proximity of father by family norms, Russia

		Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =28,1004, p=0,0308)	Strongly disagree	12,28	8,77	12,28	17,54	49,12
	Disagree	8,84	12,41	14,55	19,83	44,37
	Neither agree, nor disagree	11,32	11,90	13,44	20,21	43,13
	Agree	13,45	8,62	14,93	21,65	41,35
	Strongly agree	12,34	6,49	13,31	21,43	46,43
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =14,8165, n.s.)	Strongly disagree	20,00	20,00	0,00	0,00	60,00
	Disagree	7,69	0,00	0,00	30,77	61,54
	Neither agree, nor disagree	6,98	10,85	16,28	23,26	42,64
	Agree	11,66	9,75	14,63	21,47	42,48
	Strongly agree	12,46	10,67	13,61	19,56	43,70
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =22,9704, n.s.)	Strongly disagree	4,35	0,00	13,04	34,78	47,83
	Disagree	10,26	9,60	14,90	18,87	46,36
	Neither agree, nor disagree	11,70	10,54	14,78	19,92	43,06
	Agree	10,77	10,18	14,38	22,49	42,19
	Strongly agree	15,16	10,15	12,99	18,13	43,57

Table 3h: Relative distribution geographic proximity of father by family norms, Georgia

		Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =17,8932, n.s.)	Strongly disagree	43,75	31,25	0,00	0,00	25,00
	Disagree	29,39	22,81	8,33	12,72	26,75
	Neither agree, nor disagree	33,78	18,39	6,69	13,38	27,76
	Agree	29,19	18,47	7,75	15,59	29,00
	Strongly agree	29,80	15,97	7,98	15,48	30,77
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =16,2281, n.s.)	Strongly disagree	0,00	0,00	0,00	100,00	0,00
	Disagree	37,50	0,00	12,50	25,00	25,00
	Neither agree, nor disagree	16,67	19,44	11,11	11,11	41,67
	Agree	29,72	17,57	7,90	15,93	28,88
	Strongly agree	30,02	18,90	7,45	14,23	29,41
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =27,6785, p=0,0345)	Strongly disagree	0,00	37,50	0,00	25,00	37,50
	Disagree	24,19	13,71	14,52	19,35	28,23
	Neither agree, nor disagree	27,53	19,43	6,88	10,12	36,03
	Agree	29,62	18,39	7,81	15,53	28,65
	Strongly agree	30,97	17,78	7,22	15,07	28,96

Table 3i: Relative distribution geographic proximity of father by family norms, Germany

		Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =33,1934, p<0,0070)	Strongly disagree	7,23	1,16	30,64	21,10	39,88
	Disagree	10,76	1,26	28,88	20,45	38,66
	Neither agree, nor disagree	11,28	1,49	30,59	21,07	35,58
	Agree	15,20	1,93	27,14	18,70	37,03
	Strongly agree	10,31	2,06	29,38	12,37	45,88
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =28,7872, p=0,0254)	Strongly disagree	8,33	0,00	36,11	16,67	38,89
	Disagree	7,45	0,53	28,72	21,28	42,02
	Neither agree, nor disagree	8,42	0,62	28,13	19,10	43,74
	Agree	12,46	1,40	29,40	20,16	36,58
	Strongly agree	12,73	2,66	29,37	19,02	36,22
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =47,8386, p<0,0001)	Strongly disagree	7,98	0,61	28,22	22,09	41,10
	Disagree	7,69	1,25	27,65	20,37	43,04
	Neither agree, nor disagree	10,02	1,13	29,56	19,79	39,50
	Agree	14,13	1,48	29,12	20,61	34,66
	Strongly agree	14,56	3,57	31,04	15,11	35,71

Table 3j: Relative distribution geographic proximity of father by family norms, France

		Living in same household as father	Living in same household as father & ever lived separately for more than 3 months	1-10 minutes from father's residence	11-30 minutes from father's residence	More than 30 minutes from father's residence
If their adult children were in need, parents should adjust their own lives in order to help them (Chi <sup>2</sup> =19,0886, n.s.)	Strongly disagree	6,63	2,04	26,36	19,22	45,75
	Disagree	6,21	2,01	23,11	20,44	48,23
	Neither agree, nor disagree	7,50	2,60	26,30	22,40	41,20
	Agree	5,00	2,26	25,24	20,36	47,14
	Strongly agree	6,51	1,52	26,90	19,74	45,34
Children should take responsibility for caring for their parents where parents are in need (Chi <sup>2</sup> =48,0045, p<0,0001)	Strongly disagree	2,42	0,91	29,31	20,85	46,53
	Disagree	3,58	0,83	26,45	23,69	45,45
	Neither agree, nor disagree	6,64	1,73	25,54	23,67	42,42
	Agree	6,63	1,90	24,50	20,04	46,93
	Strongly agree	7,98	3,45	25,46	18,33	44,79
Children should have their parents to live with them when parents can no longer look after themselves (Chi <sup>2</sup> =20,9105, p<0,0001)	Strongly disagree	2,63	1,31	27,09	25,45	43,51
	Disagree	4,82	1,20	23,49	22,89	47,59
	Neither agree, nor disagree	5,59	2,27	26,82	20,10	45,22
	Agree	7,36	2,13	23,60	19,70	47,20
	Strongly agree	10,26	3,23	25,98	16,95	43,59

## 8.2 Appendix 2 Results 1: Logistic regression on distance to mother by country (Main effects model)

Table 2a: Odds ratio's of multinomial logistic regression on distance to mother by country - model with main effects<sup>8</sup>

			Bulgaria	Russia	Georgia	Germany	France
Living in same household as mother (ref. living 1 to 10 minutes from mother)	Marital status mother (ref. mother widowed)	Still married / living with biological father	0,446***	.	0,698*		.
		Ever divorced / separated from biological father	.	.	.		.
		Other situation	.	.	1,530		.
	Gender (ref. daughters)	Sons	1,296**	0,917	2,671***	1,059	1,174
	Family type (ref. couple, own children in hh)	Single	44,778***	40,035***	43,543***	11,387***	125,356***
		Single, ever divorced	9,342***	5,716***	6,480**	2,848**	13,258***
		Single parent	6,729***	5,376***	2,181*	1,626	3,469
		Single parent, ever divorced	4,808***	2,232**	5,615***	0,575	7,018*
		Couple, no children in hh	2,216***	1,007	1,531	1,204	1,391
		Couple, no children in hh, ever divorced	0,812	2,778*	1,006	2,678*	0,000
		Couple, children in hh ever divorced	0,818	0,325	0,250	1,380	0,000
		New constellated family	0,908	0,599	0,806	0,904	0,000
	If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	0,942	0,877	0,975*	1,244	1,382
		Neither agree, nor disagree	1,148	1,104	1,79	1,309	1,158
		Agree	1,588**	1,216	1,007*	1,817	0,843
	Children should take responsibility	(Strongly) disagree	0,414	.	.	1,172	1,004

<sup>8</sup> Due to a small number of respondents in some categories, this results in extremely large odds-ratios. In this case the odds-ratio's are replaced by a '.' as no valid interpretation is possible.

			Bulgaria	Russia	Georgia	Germany	France
	for caring for their parents when parents are in need	Neither agree, nor disagree	1,061	0,823	0,257*	1,443	0,725
		Agree	1,024	0,782	1,039	1,220	1,304
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,637	0,474**	0,443*	0,556	0,446**
		Neither agree, nor disagree	0,594**	0,623*	0,929	0,746	0,478**
		Agree	0,809	0,687*	0,803	0,952	1,059
	Subjective health (ref. (very) bad)	Very good	1,081	1,198	0,686	0,501	1,194
		Good	1,113	1,386	0,706	0,413*	1,418
		Fair	1,364	1,559	0,575*	0,500	1,615
	Mother / parents with limited disability (ref. yes)	No	0,812	3,240***	1,430	.	72,664***
	HH owns home (ref. yes)	No	0,114***	0,892	0,494**	0,492***	0,069***
	HH able to make ends meet (ref. (very) easily)	With great difficulty	1,853*	1,222	1,289	0,926	1,362
		With difficulty	1,664*	1,317	1,430	0,731	1,724
		With some difficulty	1,446	1,429	1,312	1,206	1,161
		Fairly easily	1,186	0,875	1,559	0,993	1,899
	At work (ref. yes)	No	1,224	1,320	1,367*	2,056***	3,121***
	Age (ref. 20 or <)	50+	0,061***	0,171***	0,147***	0,408**	0,030***
		41-50	0,070***	0,181***	0,195***	0,170***	0,037***
		31-40	0,169***	0,232***	0,460*	0,122***	0,027***
		21-30	0,396**	0,463**	0,917	0,222***	0,183***
	Siblings	Number of siblings	0,798***	0,880*	0,722***	1,028	1,165**
Living with mother, ever lived separately for more than 3	Marital status mother (ref. mother widowed)	Still married / living with biological father	0,503***	.	0,708*		.
		Ever divorced / separated from biological father	.	.	.		.
		Other situation	.	.	.		.

			Bulgaria	Russia	Georgia	Germany	France
months (ref. living 1 to 10 minutes from mother)	Gender (ref. daughters)	Sons	1,980***	1,165	5,058***	1,263	1,196
	Family type (ref. couple, own children in hh)	Single	39,188***	21,005***	31,033***	56,663***	71,923***
		Single, ever divorced	20,936***	15,602***	10,334***	37,124***	63,209***
		Single parent	6,052***	8,321***	3,251***	4,479	8,353
		Single parent, ever divorced	11,700***	6,704***	14,445***	5,857	16,171**
		Couple, no children in hh	2,292***	1,391	1,553	9,872**	2,901
		Couple, no children in hh, ever divorced	0,778	4,285**	0,500	0,000	3,472
		Couple, children in hh ever divorced	1,036	1,189	1,289	0,000	1,685
		New constellated family	0,815	1,331	1,588	6,284*	0,000
		If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,522*	1,447	1,330	1,076
	Neither agree, nor disagree		1,378	1,331	1,586	0,688	1,371
	Agree		2,024***	1,247	1,232	1,827	0,857
	Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree	0,561	.	.	0,211	0,711
		Neither agree, nor disagree	0,911	1,120	0,218*	0,728	0,374*
		Agree	0,937	0,965	0,849	0,625	0,666
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,535	0,459**	0,672	0,306*	0,543
		Neither agree, nor disagree	0,508***	0,666	1,246	0,454	0,606
		Agree	0,797	0,796	0,933	0,590	0,936
	Subjective health (ref. (very) bad)	Very good	1,660	0,519	1,071	0,852	0,643
		Good	1,723	0,832	1,014	0,748	0,760
		Fair	1,948*	0,907	0,947	0,469	1,147
	Mother / parents with limited disability (ref. yes)	No	0,814	1,380	1,008	.	.
	HH owns home (ref. yes)	No	0,122***	0,865	0,660	0,336***	0,106***

			Bulgaria	Russia	Georgia	Germany	France
	HH able to make ends meet (ref. (very) easily)	With great difficulty	2,100**	0,788	1,084	0,284	0,614
		With difficulty	2,106**	0,777	1,236	0,570	1,127
		With some difficulty	1,759*	0,859	1,231	0,901	1,203
		Fairly easily	1,140	0,714	1,626	1,266	1,097
	At work (ref. yes)	No	1,283*	1,305	1,087	2,169**	2,730***
	Age (ref. 20 or <)	50+	0,340**	0,472*	0,964	4,891**	0,186**
		41-50	0,405**	0,364**	1,475	2,12	0,126***
		31-40	0,599	0,390**	2,850**	2,485	0,123***
		21-30	1,242	0,597	2,821**	2,473	0,614
	Siblings	Number of siblings	0,720***	0,918	0,770***	0,988	1,004
Living 11 – 30 minutes from mother (ref. living 1 to 10 minutes from mother)	Marital status mother (ref. mother widowed)	Still married / living with biological father	0,931	1,099	1,248		1,244*
		Ever divorced / separated from biological father	0,874	1,030	.		1,390**
		Other situation	1,273	0,860	2,929		1,335
	Gender (ref. daughters)	Sons	0,500***	0,719**	0,370***	0,840*	0,930
	Family type (ref. couple, own children in hh)	Single	1,212	1,059	0,528	1,223	1,151
		Single, ever divorced	0,995	1,004	0,612	1,307	1,280
		Single parent	0,771	1,005	0,848	0,759	0,714
		Single parent, ever divorced	0,603*	0,670*	0,618	0,983	1,023
		Couple, no children in hh	0,972	0,657**	0,829	1,287*	1,107
		Couple, no children in hh, ever divorced	0,500	1,390	0,913	1,483	1,476
		Couple, children in hh ever divorced	0,917	1,090	1,088	1,334	1,846*
	New constellated family	0,930	1,034	1,026	1,336	1,589*	
	If their adult children were in need, parents should adjust their own	(Strongly) disagree	1,270	1,074	1,078	0,824	1,048
Neither agree, nor disagree		1,402*	0,920	1,180	0,800	0,990	

			Bulgaria	Russia	Georgia	Germany	France
	lives in order to help them	Agree	1,418*	0,920	1,035	0,912	1,013
	Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree	1,288	.	.	0,801	1,139
		Neither agree, nor disagree	1,821***	0,932	0,269*	1,071	1,128
		Agree	1,267*	0,872	1,289	1,090	1,052
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,912	1,414	0,634	1,857**	1,394**
		Neither agree, nor disagree	0,872	1,238	0,826	1,670**	1,069
		Agree	0,879	1,389*	0,768	1,773**	1,361*
	Subjective health (ref. (very) bad)	Very good	1,412	1,504	1,185	1,644	1,207
		Good	1,500	1,332	1,478	1,356	1,252
		Fair	1,644*	1,140	1,212	1,295	1,060
	Mother / parents with limited disability (ref. yes)	No	1,114	1,336*	1,171	0,953	1,083
	HH owns home (ref. yes)	No	0,954	1,054	0,852	1,607***	0,986
	HH able to make ends meet (ref. (very) easily)	With great difficulty	1,356	1,062	0,544	1,115	0,758
		With difficulty	1,341	0,996	0,643	0,958	0,893
		With some difficulty	1,364	0,953	0,628	1,203	0,996
		Fairly easily	1,202	0,837	0,855	1,024	1,117
	At work (ref. yes)	No	0,929	1,009	1,099	0,925	1,337**
	Age (ref. 20 or <)	50+	1,741	1,542	2,550*	1,902*	1,542
		41-50	1,470	1,521	1,702	1,643	1,327
		31-40	1,229	1,168	1,833	1,506	1,137
		21-30	1,254	1,255	1,502	1,311	1,310
	Siblings	Number of siblings	0,876***	1,010	0,936	0,949	1,008
Living more than 30	Marital status mother (ref. mother)	Still married / living with biological father	0,842*	1,026	1,242		1,374***

			Bulgaria	Russia	Georgia	Germany	France
minutes from mother (ref. living 1 to 10 minutes from mother)	widowed)	Ever divorced / separated from biological father	0,729	0,943	1,904		1,659***
		Other situation	0,824	1,112	2,357		2,158*
	Gender (ref. daughters)	Sons	0,417***	0,668***	0,389***	0,900	0,915
	Family type (ref. couple, own children in hh)	Single	2,410***	3,950***	1,196	2,103***	1,574***
		Single, ever divorced	1,713	1,477	0,505	1,358	1,332*
		Single parent	1,309	0,898	0,867	0,866	0,690
		Single parent, ever divorced	0,654	0,871	0,526	0,904	0,864
		Couple, no children in hh	1,178	1,111	0,786	1,294*	1,052
		Couple, no children in hh, ever divorced	1,476	2,142*	0,230	1,656*	1,627**
		Couple, children in hh ever divorced	1,308	1,117	1,121	1,781**	1,746**
		New constellated family	1,331	0,923	0,647	1,719**	1,465*
	If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,536**	1,152	1,053	0,530**	1,263*
		Neither agree, nor disagree	1,402*	1,072	1,242	0,461***	1,029
		Agree	1,484**	0,980	0,995	0,569**	1,325*
	Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree	1,333	.	.	1,229	0,943
		Neither agree, nor disagree	1,145	0,928	0,543	1,455*	1,030
		Agree	1,013	0,858	1,010	1,246	1,082
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,974	1,201	0,850	1,759**	1,036
		Neither agree, nor disagree	1,110	0,990	1,476	1,754***	0,895
		Agree	1,021	1,015	0,956	1,508**	1,125
	Subjective health (ref. (very) bad)	Very good	1,349	1,461	1,086	1,855*	1,314
		Good	1,422	1,272	1,021	1,429	1,292
		Fair	1,460	1,123	0,968	1,381	1,079

			Bulgaria	Russia	Georgia	Germany	France
	Mother / parents with limited disability (ref. yes)	No	1,085	1,066	1,119	1,097	1,292**
	HH owns home (ref. yes)	No	1,147	1,850***	1,096	2,146***	1,406***
	HH able to make ends meet (ref. (very) easily)	With great difficulty	0,951	0,684	0,494	0,826	0,511***
		With difficulty	0,898	0,767	0,620	0,798	0,643***
		With some difficulty	0,940	0,880	0,501	0,985	0,706**
		Fairly easily	0,769	0,890	0,661	0,921	0,879
	At work (ref. yes)	No	0,929	1,141	1,417**	1,293**	1,398***
	Age (ref. 20 or <)	50+	1,535	1,779	2,819*	2,058*	0,949
		41-50	1,160	1,577	2,078	1,942*	0,887
		31-40	0,841	1,142	2,185*	1,610	0,646
		21-30	0,698	0,896	1,382	1,423	0,729
	Siblings	Number of siblings	0,909**	1,167***	0,995	1,041	1,044**

\* p<0,05 \*\* p<0,01 \*\*\* p<0,001

Table 2b: Model fitting information by country

Country	Model	Model Fitting Criteria	Likelihood ratio tests		
		-2 Log Likelihood	Chi-Square	df	Sig.
Bulgaria	Intercept Only	22.525,464			
	Final	17.418,917	5.106,546	144	0,000
Russia	Intercept Only	16.858,143			
	Final	12.951,824	3.906,319	144	0,000
Georgia	Intercept Only	16.309,388			
	Final	12.224,892	4.084,495	144	0,000
Germany	Intercept Only	12.454,677			
	Final	10.949,564	1.505,114	144	0,000
France	Intercept Only	15.351,712			
	Final	12.780,627	2.571,084	144	0,000

Table 2c: Pseudo R-square by country

Bulgaria	Cox and Snell	0,495
	Nagelkerke	0,516
	McFadden	0,215
Russia	Cox and Snell	0,497
	Nagelkerke	0,523
	McFadden	0,229
Georgia	Cox and Snell	0,519
	Nagelkerke	0,544
	McFadden	0,239
Germany	Cox and Snell	0,275
	Nagelkerke	0,295
	McFadden	0,120
France	Cox and Snell	0,349
	Nagelkerke	0,378
	McFadden	0,167

### 8.3 Appendix 3 Results 2: Logistic regression on distance to mother by country (Interaction effect model)

Table 3a: Odds ratio's of multinomial logistic regression on distance to mother by country <sup>9</sup>

			Bulgaria	Russia	Georgia	Germany	France
Living in same household as mother (ref. living 1 to 10 minutes from mother)	Marital status mother (ref. mother widowed)	Still married / living with biological father	0,440***	.	0,679**		.
		Ever divorced / separated from biological father	.	.	.		.
		Other situation	.	.	.		.
	Gender (ref. daughters)	Sons	2,180***	0,992	5,531***	1,524	3,043
	Family type (ref. couple, own children in hh)	Single	93,952***	34,647***	198,716***	18,133***	205,250***
		Single, ever divorced	19,481***	6,928***	16,204**	3,241*	20,082**
		Single parent	8,294***	5,337***	2,815*	1,108	8,601
		Single parent, ever divorced	7,221***	2,160**	10,359***	0,855	15,869**
		Couple, no children in hh	2,510***	1,407	1,196	1,414	2,471
		Couple, no children in hh, ever divorced	2,192	1,455	0,000	4,683**	0,000
		Couple, children in hh ever divorced	2,576	0,135	2,679	0,500	0,000
		New constellated family	0,371	0,702	1,971	1,356	0,000
	Family type x gender	Single x sons	0,272***	1,254	0,056***	0,429*	0,432
		Single, ever divorced x sons	0,301	0,713	0,229	0,721	0,476
		Single parent x sons	0,859	2,136	1,129	3,962	0,000
		Single parent, ever divorced x sons	0,303	7,387	0,157	0,000	0,000

<sup>9</sup> Due to a small number of respondents in some categories, this results in extremely large odds-ratio's. In this case the odds-ratio's are replaced by a '.' as no valid interpretation is possible.

		Bulgaria	Russia	Georgia	Germany	France
	Couple, no children in hh x sons	0,798	0,381	1,748	0,678	0,307
	Couple, no children in hh, ever divorced x sons	0,000	2,912	.	0,285	0,330
	Couple, children in hh ever divorced x sons	0,116*	3,953	0,000	6,115	0,410
	New constellated family x sons	3,579	0,750	0,000	0,224	0,598
If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	0,903	0,872	0,900	1,228	1,417
	Neither agree, nor disagree	1,123	1,108	1,769	1,292	1,199
	Agree	1,565**	1,228	0,961	1,786	0,871
Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree	0,443	.	.	1,180	0,997
	Neither agree, nor disagree	1,064	0,822	0,298*	1,519	0,737
	Agree	1,036	0,778	1,043	1,226	1,309
Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,630	0,481*	0,443*	0,551	0,441**
	Neither agree, nor disagree	0,600**	0,629*	0,927	0,737	0,467**
	Agree	0,821	0,696	0,824	0,950	1,052
Subjective health (ref. (very) bad)	Very good	1,019	1,189	0,643	0,490	1,244
	Good	1,057	1,386	0,677	0,404*	1,491
	Fair	1,313	1,547	0,565*	0,488	1,691
Mother / parents with limited disability (ref. yes)	No	0,797	3,190***	1,355	.	74,689***
HH owns home (ref. yes)	No	0,110***	0,884	0,487**	0,484***	0,068***
HH able to make ends meet (ref. (very) easily)	With great difficulty	1,806*	1,229	1,284	0,963	1,366
	With difficulty	1,652*	1,345	1,387	0,718	1,763
	With some difficulty	1,433	1,443	1,317	1,178	1,181
	Fairly easily	1,207	0,878	1,556	1,014	1,906*
At work (ref. yes)	No	1,223	1,316	1,588**	2,130***	3,102***

			Bulgaria	Russia	Georgia	Germany	France
	Age (ref. 20 or <)	50+	0,060***	0,167***	0,104***	0,403**	0,030***
		41-50	0,069***	0,175***	0,159***	0,171***	0,037
		31-40	0,177***	0,226***	0,404*	0,123***	0,026***
		21-30	0,422**	0,463**	0,906	0,224***	0,180***
	Siblings	Number of siblings	0,796***	0,874*	0,707***	1,023	1,159**
Living with mother, ever lived separately for more than 3 months (ref. living 1 to 10 minutes from mother)	Marital status mother (ref. mother widowed)	Still married / living with biological father	0,501***	.	0,695**		.
		Ever divorced / separated from biological father	.	.	.		.
		Other situation	.	.	.		.
	Gender (ref. daughters)	Sons	3,445***	1,026	8,164***	.	4,931
	Family type (ref. couple, own children in hh)	Single	85,819***	14,835***	111,900***	.	157,227***
		Single, ever divorced	39,199***	15,693***	32,299***	.	124,834***
		Single parent	10,597***	7,805***	6,360***	.	45,570*
		Single parent, ever divorced	20,585***	6,169***	23,663***	.	52,333**
		Couple, no children in hh	3,679***	1,513	1,824	.	9,490
		Couple, no children in hh, ever divorced	1,280	3,563	0,000	3,120	0,000
		Couple, children in hh ever divorced	1,251	0,536	3,175	1,639	0,000
	New constellated family	1,473	2,148*	3,691	1,326	0,000	
	Family type x gender	Single x sons	0,284***	1,834	0,088***	0,000	0,275
		Single, ever divorced x sons	0,398	1,013	0,166	0,000	0,311
		Single parent x sons	0,218	1,389	0,201	0,000	0,000
		Single parent, ever divorced x sons	0,208**	3,187	0,206	0,000	0,000
		Couple, no children in hh x sons	0,510	0,785	1,075	0,000	0,097
Couple, no children in hh, ever divorced x sons		0,479	1,376	.	0,000	.	
Couple, children in hh ever divorced x sons		0,654	3,819	0,332	0,000	.	

			Bulgaria	Russia	Georgia	Germany	France
		New constellated family x sons	0,393	0,200*	0,357	5,295	0,213
	If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,462*	1,483	1,255	1,092	1,131
		Neither agree, nor disagree	1,353	1,347	1,558	0,717	1,421
		Agree	1,999***	1,268	1,194	1,931	0,896
	Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree	0,578	.	.	0,235	0,696
		Neither agree, nor disagree	0,930	1,074	0,247*	0,730	0,398*
		Agree	0,950	0,956	0,853	0,648	0,666
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,522	0,481*	0,664	0,306*	0,535
		Neither agree, nor disagree	0,510***	0,682	1,267	0,457	0,587
		Agree	0,807	0,815	0,947	0,582	0,944
	Subjective health (ref. (very) bad)	Very good	1,623	0,502	1,045	0,872	0,778
		Good	1,702	0,834	0,998	0,765	0,937
		Fair	1,936*	0,892	0,945	0,474	1,408
	Mother / parents with limited disability (ref. yes)	No	0,812	1,355	0,997	.	.
	HH owns home (ref. yes)	No	0,120***	0,859	0,652	0,326***	0,101***
	HH able to make ends meet (ref. (very) easily)	With great difficulty	2,063**	0,802	1,021	0,289	0,628
		With difficulty	2,103**	0,793	1,153	0,555	1,176
		With some difficulty	1,760*	0,875	1,177	0,914	1,239
		Fairly easily	1,171	0,725	1,549	1,286	1,103
	At work (ref. yes)	No	1,286*	1,280	1,218	2,410**	2,686***
	Age (ref. 20 or <)	50+	0,348**	0,482	0,799	4,697*	0,190**
		41-50	0,414**	0,352**	1,276	2,211	0,128***
		31-40	0,633	0,371**	2,607	2,842	0,117***

			Bulgaria	Russia	Georgia	Germany	France
		21-30	1,325	0,582	2,776**	2,580	0,601
	Siblings	Number of siblings	0,718***	0,911	0,763***	0,979	0,995
Living 11 – 30 minutes from mother (ref. living 1 to 10 minutes from mother)	Marital status mother (ref. mother widowed)	Still married / living with biological father	0,938	1,100	1,266		1,239*
		Ever divorced / separated from biological father	0,799	1,030	.		1,398**
		Other situation	1,105	0,863	3,117		1,339
	Gender (ref. daughters)	Sons	0,434***	0,764*	0,342***	0,752*	0,846
	Family type (ref. couple, own children in hh)	Single	1,149	1,092	0,720	1,346	1,042
		Single, ever divorced	0,585	1,363	0,622	1,265	1,033
		Single parent	0,696	1,015	0,809	0,746	0,609
		Single parent, ever divorced	0,572*	0,659*	0,626	1,002	1,074
		Couple, no children in hh	0,752	0,685	0,641	1,098	1,144
		Couple, no children in hh, ever divorced	0,374	1,606	0,312	1,276	1,149
		Couple, children in hh ever divorced	1,543	1,020	1,181	1,245	1,692*
		New constellated family	0,564	1,147	0,474	1,202	1,367
	Family type x gender	Single x sons	1,401	0,879	1,266	0,924	1,263
		Single, ever divorced x sons	2,573	0,564	1,418	1,107	1,496
		Single parent x sons	1,793	1,353	1,721	0,863	2,042
		Single parent, ever divorced x sons	1,435	4,176	1,496	0,701	0,524
		Couple, no children in hh x sons	1,791*	0,914	1,914	1,444	0,903
		Couple, no children in hh, ever divorced x sons	1,877	0,784	.	1,364	1,761
		Couple, children in hh ever divorced x sons	0,410	1,094	1,023	1,218	1,198
New constellated family x sons		3,037*	0,785	8,977	1,322	1,379	
If their adult children were in need, parents should adjust their own	(Strongly) disagree	1,286	1,078	1,048	0,819	1,060	
	Neither agree, nor disagree	1,412*	0,922	1,182	0,797	0,994	

			Bulgaria	Russia	Georgia	Germany	France
	lives in order to help them	Agree	1,423*	0,922	1,034	0,914	1,023
	Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree	1,277	.	.	0,809	1,137
		Neither agree, nor disagree	1,802**	0,924	0,259*	1,077	1,117
		Agree	1,264*	0,876	1,268	1,093	1,050
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,908	1,402	0,649	1,866**	1,391**
		Neither agree, nor disagree	0,871	1,229	0,827	1,680**	1,063
		Agree	0,881	1,389*	0,780	1,783**	1,350*
	Subjective health (ref. (very) bad)	Very good	1,416	1,486	1,191	1,653	1,202
		Good	1,498	1,339	1,494	1,360	1,248
		Fair	1,637*	1,145	1,203	1,304	1,059
	Mother / parents with limited disability (ref. yes)	No	1,091	1,339*	1,155	0,951	1,082
	HH owns home (ref. yes)	No	0,976	1,054	0,860	1,607***	0,982
	HH able to make ends meet (ref. (very) easily)	With great difficulty	1,379	1,081	0,541	1,105	0,770
		With difficulty	1,353	1,014	0,641	0,953	0,909
		With some difficulty	1,381	0,970	0,624	1,202	1,016
		Fairly easily	1,224	0,844	0,842	1,023	1,128
	At work (ref. yes)	No	0,932	1,017	1,093	0,923	1,321**
	Age (ref. 20 or <)	50+	1,735	1,533	2,538*	1,872*	1,540
		41-50	1,478	1,522	1,702	1,628	1,304
		31-40	1,210	1,180	1,791	1,488	1,117
		21-30	1,218	1,275	1,445	1,296	1,278
	Siblings	Number of siblings	0,874***	1,010	0,939	0,949	1,008
Living more than 30	Marital status mother (ref. mother)	Still married / living with biological father	0,847	1,024	1,260		1,374***

			Bulgaria	Russia	Georgia	Germany	France
minutes from mother (ref. living 1 to 10 minutes from mother)	widowed)	Ever divorced / separated from biological father	0,664	0,937	1,749		1,652***
		Other situation	0,840	1,127	2,612		2,160*
	Gender (ref. daughters)	Sons	0,385***	0,610***	0,341***	0,868	0,848
	Family type (ref. couple, own children in hh)	Single	2,738***	3,200***	1,666	2,936***	1,409*
		Single, ever divorced	1,639	1,723	0,246	1,417	1,277
		Single parent	1,279	0,846	0,832	0,814	0,646
		Single parent, ever divorced	0,660	0,808	0,541	0,903	0,856
		Couple, no children in hh	1,047	1,074	0,600	1,080	0,937
		Couple, no children in hh, ever divorced	0,846	2,435	0,142	1,617	1,553*
		Couple, children in hh ever divorced	1,920	0,859	1,468	1,707*	1,877**
		New constellated family	1,038	0,847	0,354	1,539*	1,579
	Family type x gender	Single x sons	0,992	1,531	1,224	0,604*	1,278
		Single, ever divorced x sons	1,145	0,794	5,703	0,955	1,085
		Single parent x sons	1,017	1,736	1,247	1,362	1,306
		Single parent, ever divorced x sons	1,020	4,316	1,006	0,994	0,928
		Couple, no children in hh x sons	1,276	1,108	1,960	1,515	1,296
		Couple, no children in hh, ever divorced x sons	3,182	0,836	15,534	1,069	1,104
		Couple, children in hh ever divorced x sons	0,586	1,656	0,759	1,137	0,876
		New constellated family x sons	1,668	1,255	5,978	1,343	0,847
	If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,541**	1,151	1,042	0,524**	1,267*
		Neither agree, nor disagree	1,405*	1,071	1,261	0,460***	1,032
		Agree	1,484**	0,980	0,999	0,572**	1,327*
	Children should take responsibility for caring for their parents when	(Strongly) disagree	1,329	.	.	1,255	0,941
Neither agree, nor disagree		1,132	0,914	0,524	1,476*	1,026	

			Bulgaria	Russia	Georgia	Germany	France
	parents are in need	Agree	1,012	0,858	0,994	1,252*	1,082
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,957	1,200	0,874	1,771**	1,030
		Neither agree, nor disagree	1,106	0,986	1,480	1,761***	0,889
		Agree	1,022	1,018	0,969	1,519**	1,119
	Subjective health (ref. (very) bad)	Very good	1,359	1,428	1,106	1,887*	1,320
		Good	1,431	1,272	1,047	1,445	1,300
		Fair	1,467	1,122	0,972	1,400	1,082
	Mother / parents with limited disability (ref. yes)	No	1,074	1,069	1,106	1,103	1,298***
	HH owns home (ref. yes)	No	1,161	1,853	1,110	2,138***	1,415***
	HH able to make ends meet (ref. (very) easily)	With great difficulty	0,959	0,685	0,496	0,831	0,509***
		With difficulty	0,900	0,770	0,622	0,791	0,647**
		With some difficulty	0,945	0,882	0,501	0,983	0,705**
		Fairly easily	0,776	0,886	0,658	0,919	0,879
	At work (ref. yes)	No	0,932	1,146	1,401**	1,308**	1,388***
	Age (ref. 20 or <)	50+	1,535	1,789	2,797*	2,006*	0,946
		41-50	1,167	1,578	2,034	1,940*	0,877
		31-40	0,834	1,150	2,071	1,618	0,634
		21-30	0,689	0,896	1,287	1,422	0,717
	Siblings	Number of siblings	0,907**	1,166	0,999	1,041	1,044**

\* p<0,05 \*\* p<0,01 \*\*\* p<0,001

Table 3b: Model fitting information by country

Country	Model	Model Fitting Criteria	Likelihood ratio tests		
		-2 Log Likelihood	Chi-Square	df	Sig.
Bulgaria	Intercept Only	22.525,464			
	Final	17.308,726	5.216,738	176	0,000
Russia	Intercept Only	16.858,143			
	Final	12.917,462	3.940,681	176	0,000
Georgia	Intercept Only	16.309,388			
	Final	12.027,251	4.282,137	176	0,000
Germany	Intercept Only	12.454,677			
	Final	10.906,338	1.548,340	176	0,000
France	Intercept Only	15.351,712			
	Final	12.751,082	2.600,630	176	0,000

Table 3c: Pseudo R-square by country

Bulgaria	Cox and Snell	0,502
	Nagelkerke	0,524
	McFadden	0,219
Russia	Cox and Snell	0,500
	Nagelkerke	0,526
	McFadden	0,231
Georgia	Cox and Snell	0,535
	Nagelkerke	0,562
	McFadden	0,251
Germany	Cox and Snell	0,281
	Nagelkerke	0,302
	McFadden	0,123
France	Cox and Snell	0,352
	Nagelkerke	0,381
	McFadden	0,169

### 8.4 Appendix 4 Results 3: Logistic regression on distance to father by country (Main effects model)

Table 4a: Odds ratio's of multinomial logistic regression on distance to father by country - model with main effects<sup>10</sup>

			Bulgaria	Russia	Georgia	Germany	France
Living in same household as father (ref. living 1 to 10 minutes from father)	Marital status father (ref. father widowed)	Still married / living with biological mother	0,559**	.	0,871		1,708
		Ever divorced / separated from biological mother	.	.	.		0,762
		Other situation	.	.	.		385,201
	Gender (ref. daughters)	Sons	1,443**	0,783	3,683***	1,107	1,048
	Family type (ref. couple, own children in hh)	Single	49,201***	19,683***	60,221***	13,416***	19,494***
		Single, ever divorced	8,119***	9,437***	5,284*	3,093**	3,185**
		Single parent	6,358***	3,633**	5,128**	1,966	2,231
		Single parent, ever divorced	3,948***	2,220	2,666	1,524	2,469
		Couple, no children in hh	2,195***	1,090	1,741	1,181	1,634
		Couple, no children in hh, ever divorced	0,774	2,247	0,000	2,332	2,813
		Couple, children in hh ever divorced	0,178	0,377	0,000	1,247	1,812
		New constellated family	0,989	0,439	0,000	0,562	1,941
	If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	0,635*	0,659	1,166	1,254	0,913
		Neither agree, nor disagree	0,856	1,024	1,903	1,418	0,922
		Agree	1,194	1,283	1,113	2,028	0,879
	Children should take responsibility	(Strongly) disagree	0,698	.	0,111	0,923	1,215

<sup>10</sup> Due to a small number of respondents in some categories, this results in extremely large odds-ratios. In this case the odds-ratio's are replaced by a '.' as no valid interpretation is possible.

			Bulgaria	Russia	Georgia	Germany	France
	for caring for their parents when parents are in need	Neither agree, nor disagree	0,745	0,827	0,280	1,616	1,061
		Agree	1,367*	1,205	0,926	1,183	1,113
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,672	0,278***	0,428*	0,755	0,610*
		Neither agree, nor disagree	0,584*	0,405**	0,692	0,767	0,548**
		Agree	0,828	0,447**	0,916	1,053	0,789
	Subjective health (ref. (very) bad)	Very good	1,421	1,646	0,348*	0,251**	1,513
		Good	1,267	1,828	0,486	0,227**	1,762
		Fair	1,770	2,189	0,397*	0,218**	1,475
	Father / parents with limited disability (ref. yes)	No	0,978	3,271**	0,957	.	2,019**
	HH owns home (ref. yes)	No	0,083***	0,856	0,506*	0,464***	0,208***
	HH able to make ends meet (ref. (very) easily)	With great difficulty	1,871*	1,313	1,274	0,316*	0,542
		With difficulty	1,919*	1,921	1,296	0,511*	0,974
		With some difficulty	1,591	1,639	1,218	0,910	0,763
		Fairly easily	1,587	1,001	1,399	0,927	1,114
	At work (ref. yes)	No	1,298	1,208	1,583*	2,347***	2,085***
	Age (ref. 20 or <)	50+	0,055***	0,106**	0,122***	0,514	0,050***
		41-50	0,061***	0,113***	0,210***	0,131***	0,065***
		31-40	0,184***	0,228***	0,453*	0,089***	0,061***
		21-30	0,487*	0,558*	1,058	0,165***	0,192***
	Siblings	Number of siblings	0,874*	0,980	0,870*	1,096	1,078
Living with father, ever lived separately for more than 3 months (ref. living 1	Marital status father (ref. father widowed)	Still married / living with biological mother	0,863	.	0,931		1,298
		Ever divorced / separated from biological mother	.	.	.		2,064
		Other situation	0,359	.	.		445,163

			Bulgaria	Russia	Georgia	Germany	France
to 10 minutes from father)	Gender (ref. daughters)	Sons	1,993***	1,045	6,975***	1,451	1,259
	Family type (ref. couple, own children in hh)	Single	49,151***	10,995***	43,845***	61,350***	11,375***
		Single, ever divorced	20,280***	24,528***	12,860**	57,255***	46,715***
		Single parent	7,746***	8,789***	11,361***	0,000	3,532
		Single parent, ever divorced	15,043***	11,420***	11,420***	0,000	4,443*
		Couple, no children in hh	2,774***	1,523	1,413	9,974**	1,240
		Couple, no children in hh, ever divorced	1,552	3,167	1,685	0,000	2,606
		Couple, children in hh ever divorced	0,958	1,104	4,232	0,000	1,620
		New constellated family	0,842	1,918	0,778	4,230	1,614
		If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,094	1,768	1,777	1,132
	Neither agree, nor disagree		1,029	2,222*	1,703	1,210	1,929
	Agree		1,555	1,712	1,341	2,326	2,419*
	Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree	0,558	.	0,000	0,250	0,610
		Neither agree, nor disagree	0,765	1,249	0,516	0,560	0,503*
		Agree	1,271	1,097	0,795	0,575	0,605*
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,492	0,433*	0,550	0,530	0,891
		Neither agree, nor disagree	0,563*	0,576*	1,136	0,323*	0,869
		Agree	0,810	0,697	1,094	0,410	0,695
	Subjective health (ref. (very) bad)	Very good	2,619*	0,646	0,603	0,594	2,215
		Good	2,558*	1,150	0,727	0,790	2,292
		Fair	2,570*	1,165	0,755	0,495	2,528
	Father / parents with limited disability (ref. yes)	No	1,055	1,743*	0,876	.	1,991*
	HH owns home (ref. yes)	No	0,076***	1,023	0,587	0,168***	0,221***

			Bulgaria	Russia	Georgia	Germany	France
	HH able to make ends meet (ref. (very) easily)	With great difficulty	2,280**	0,691	1,388	0,643	0,361*
		With difficulty	2,731**	0,922	1,306	1,179	0,642
		With some difficulty	2,130*	0,923	1,378	1,530	0,838
		Fairly easily	1,488	0,895	1,828	1,098	0,741
	At work (ref. yes)	No	1,235	1,183	1,117	1,867	2,062**
	Age (ref. 20 or <)	50+	0,443	0,337	1,548	0,909	0,258*
		41-50	0,449*	0,371**	1,717	2,184	0,490
		31-40	0,582	0,485*	2,759*	1,520	0,628
		21-30	1,355	0,810	3,270**	2,120	3,802**
	Siblings	Number of siblings	0,791***	0,933	0,897	1,099	1,082
Living 11 – 30 minutes from father (ref. living 1 to 10 minutes from father)	Marital status father (ref. father widowed)	Still married / living with biological mother	0,806	1,116	1,162		0,998
		Ever divorced / separated from biological mother	0,761	0,756	2,138		1,130
		Other situation	0,838	0,599	3,733		.
	Gender (ref. daughters)	Sons	0,502***	0,798	0,432***	0,887	0,862
	Family type (ref. couple, own children in hh)	Single	1,122	0,497**	0,575	1,138	1,071
		Single, ever divorced	0,909	1,129	0,497	1,194	1,269
		Single parent	0,719	0,687	1,182	0,928	0,679
		Single parent, ever divorced	0,515*	1,016	0,351	0,790	1,108
		Couple, no children in hh	0,854	0,640*	1,226	1,054	1,362*
		Couple, no children in hh, ever divorced	0,128	0,571	0,260	1,206	2,378**
		Couple, children in hh ever divorced	0,609	1,263	2,506	0,620	1,212
	New constellated family	0,978	0,808	0,880	1,064	1,215	
	If their adult children were in need,	(Strongly) disagree	1,173	0,821	1,012	1,519	1,014

			Bulgaria	Russia	Georgia	Germany	France
parents should adjust their own lives in order to help them	Neither agree, nor disagree		1,270	0,916	1,417	1,477	1,087
	Agree		1,419	0,830	1,150	1,461	1,047
Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree		1,739	.	2,613	0,814	0,988
	Neither agree, nor disagree		1,669*	0,983	0,543	0,922	1,213
	Agree		1,619***	0,990	1,169	0,953	1,027
Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree		0,972	1,064	0,628	1,405	1,398*
	Neither agree, nor disagree		0,886	1,071	0,591	1,346	1,050
	Agree		0,896	1,246	0,783	1,411	1,229
Subjective health (ref. (very) bad)	Very good		2,537*	1,718	0,671	3,313*	2,007*
	Good		2,427*	1,413	0,859	3,073*	2,072*
	Fair		3,129**	1,193	0,871	2,306	2,063*
Father / parents with limited disability (ref. yes)	No		1,136	1,333	1,146	0,876	1,106
HH owns home (ref. yes)	No		0,892	1,126	0,676	1,416**	1,090
HH able to make ends meet (ref. (very) easily)	With great difficulty		1,410	1,604	0,699	0,803	0,578*
	With difficulty		1,490	1,752	0,711	1,185	0,799
	With some difficulty		1,516	1,381	0,610	1,300	0,709*
	Fairly easily		1,552	1,311	0,732	1,267	0,872
At work (ref. yes)	No		0,858	0,816	1,252	1,112	1,089
Age (ref. 20 or <)	50+		1,708	3,733**	6,075**	1,870	2,576*
	41-50		1,324	1,832	3,975**	1,491	3,302**
	31-40		1,052	1,531	2,948*	1,198	2,447*
	21-30		1,274	1,699	2,648*	1,075	2,827**
Siblings	Number of siblings		0,878**	0,949	1,004	0,952	1,032

			Bulgaria	Russia	Georgia	Germany	France
Living more than 30 minutes from father (ref. living 1 to 10 minutes from father)	Marital status father (ref. father widowed)	Still married / living with biological mother	0,966	1,008	0,931		0,995
		Ever divorced / separated from biological mother	.	1,311	.		1,785**
		Other situation	1,470	0,303	1,213		0,575
	Gender (ref. daughters)	Sons	0,405***	0,672**	0,398***	0,900	0,843*
	Family type (ref. couple, own children in hh)	Single	2,706***	1,847**	1,504	2,258***	1,540**
		Single, ever divorced	0,988	2,134*	0,385	1,127	1,393*
		Single parent	0,864	0,854	1,368	1,063	0,539*
		Single parent, ever divorced	0,554	1,327	0,513	0,731	0,871
		Couple, no children in hh	1,152	1,191	1,158	1,169	1,334*
		Couple, no children in hh, ever divorced	1,286	2,520*	0,000	1,244	2,392***
		Couple, children in hh ever divorced	1,554	1,169	3,082	1,497	1,402
		New constellated family	1,494	0,831	0,332	1,440*	1,235
	If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,317	0,904	1,086	0,728	1,044
		Neither agree, nor disagree	1,291	0,987	1,461	0,626*	0,881
		Agree	1,354	0,838	1,072	0,768	1,122
	Children should take responsibility for caring for their parents when parents are in need	(Strongly) disagree	1,719	.	0,688	1,145	0,981
		Neither agree, nor disagree	0,924	0,837	0,771	1,527*	1,027
		Agree	1,286*	1,041	0,978	1,169	1,053
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	1,080	0,952	0,621	1,533*	1,138
		Neither agree, nor disagree	1,072	0,889	1,272	1,422	1,044
		Agree	0,948	0,922	0,862	1,206	1,201
Subjective health (ref. (very) bad)	Very good	1,878*	1,430	0,677	1,277	2,063**	
	Good	1,573	1,107	0,810	1,206	1,951**	

			Bulgaria	Russia	Georgia	Germany	France
		Fair	1,885*	1,000	0,786	1,120	1,672
	Father / parents with limited disability (ref. yes)	No	1,252	1,256	0,957	1,185	1,036
	HH owns home (ref. yes)	No	1,203	2,125***	0,931	2,023***	1,522***
	HH able to make ends meet (ref. (very) easily)	With great difficulty	0,923	0,869	0,773	0,604*	0,443***
		With difficulty	0,946	1,217	0,811	0,732	0,504***
		With some difficulty	1,096	1,186	0,632	0,830	0,611***
		Fairly easily	0,880	1,287	0,685	0,875	0,778*
	At work (ref. yes)	No	1,022	1,169	1,716**	1,509***	1,294*
	Age (ref. 20 or <)	50+	2,309*	2,758**	5,035**	1,851*	1,022
		41-50	1,662	1,790*	3,327**	1,787*	1,232
		31-40	1,025	1,435	2,672*	1,320	0,905
		21-30	0,902	1,139	1,743	1,083	1,059
	Siblings	Number of siblings	0,930	1,099*	1,073	1,076**	1,057*

\* p<0,05 \*\* p<0,01 \*\*\* p<0,001

Table 4b: Model fitting information by country

Country	Model	Model Fitting Criteria	Likelihood ratio tests		
		-2 Log Likelihood	Chi-Square	df	Sig.
Bulgaria	Intercept Only	15.278,462			
	Final	11.250,067	4.028,395	144	0,000
Russia	Intercept Only	9.836,334			
	Final	7.963,234	1.873,100	144	0,000
Georgia	Intercept Only	11.205,389			
	Final	7.994,895	3.210,494	144	0,000
Germany	Intercept Only	9.019,990			
	Final	7.690,526	1.329,464	144	0,000
France	Intercept Only	11.286,329			
	Final	10.248,285	1.038,044	144	0,000

Table 4c: Pseudo R-square by country

Bulgaria	Cox and Snell	0,544
	Nagelkerke	0,569
	McFadden	0,249
Russia	Cox and Snell	0,423
	Nagelkerke	0,447
	McFadden	0,188
Georgia	Cox and Snell	0,561
	Nagelkerke	0,590
	McFadden	0,273
Germany	Cox and Snell	0,326
	Nagelkerke	0,349
	McFadden	0,146
France	Cox and Snell	0,208
	Nagelkerke	0,226
	McFadden	0,091

## 8.5 Appendix 5 Results 4: Logistic regression on distance to father by country (Interaction effect model)

Table 5a: Odds ratio's of multinomial logistic regression on distance to father by country <sup>11</sup>

			Bulgaria	Russia	Georgia	Germany	France
Living in same household as father (ref. living 1 to 10 minutes from father)	Marital status father (ref. father widowed)	Still married / living with biological mother	0,539**	.	0,956		.
		Ever divorced / separated from biological mother	.	.	5,349		.
		Other situation <sup>12</sup>	.	.	1,929		.
	Gender (ref. daughters)	Sons	2,374***	0,792	4,855***	1,663	1,261
	Family type (ref. couple, own children in hh)	Single	110,525***	16,719***	117,621***	20,150***	182,890***
		Single, ever divorced	14,041***	9,033**	1,967	4,294*	19,495*
		Single parent	8,808***	3,623**	4,135*	1,375	17,218
		Single parent, ever divorced	4,766***	2,148	3,064	2,066	16,087
		Couple, no children in hh	2,432**	1,301	1,004	1,404	3,815
		Couple, no children in hh, ever divorced	0,846	2,211	0,000	4,037*	0,000
Couple, children in hh ever divorced		0,000	0,000	9,325	0,668	0,000	
New constellated family	0,238	0,260	0,187	0,656	0,000		
Family type x gender	Single x sons	0,243***	1,294	0,116***	0,456	1,133	

<sup>11</sup> Due to a small number of respondents in some categories, this results in extremely large odds-ratios. In this case the odds-ratio's are replaced by a '.' as no valid interpretation is possible.

<sup>12</sup> Due to a small number of respondents in the category 'other situation' in France (N=40), the categories 'divorced / separated' and 'other situation' are combined for France.

		Bulgaria	Russia	Georgia	Germany	France
	Single, ever divorced x sons	0,414	1,089	20,667	0,520	0,944
	Single parent x sons	0,449	0,000	12,221	3,827	0,000
	Single parent, ever divorced x sons	1,002	10,217	23,309	0,000	0,000
	Couple, no children in hh x sons	0,814	0,636	2,848	0,678	0,561
	Couple, no children in hh, ever divorced x sons	0,811	1,165	.	0,279	0,874
	Couple, children in hh ever divorced x sons	.	.	0,041	3,678	.
	New constellated family x sons	11,454*	2,573	0,230	0,582	0,656
If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	0,605*	0,672	1,054	1,235	0,807
	Neither agree, nor disagree	0,837	1,040	1,763	1,402	0,930
	Agree	1,190	1,312	1,076	2,010	0,697
Children should take responsibility for caring for their parents where parents are in need	(Strongly) disagree	0,781	.	0,211	0,926	1,075
	Neither agree, nor disagree	0,742	0,835	0,351	1,684	1,056
	Agree	1,372*	1,198	0,935	1,182	1,079
Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,657	0,283***	0,462	0,751	0,362**
	Neither agree, nor disagree	0,597*	0,407**	0,734	0,761	0,415**
	Agree	0,848	0,452**	0,930	1,053	0,706
Subjective health (ref. (very) bad)	Very good	1,221	1,603	0,389*	0,254**	2,109
	Good	1,107	1,803	0,535	0,229**	3,133
	Fair	1,546	2,143	0,467*	0,215**	3,376
Father / parents with limited disability (ref. yes)	No	0,950	3,260**	0,932	.	46,865***
HH owns home (ref. yes)	No	0,081***	0,857	0,539*	0,454***	0,085***
HH able to make ends meet (ref. (very) easily)	With great difficulty	1,835*	1,337	1,194	0,337*	0,414
	With difficulty	1,915*	1,958	1,227	0,502*	1,422

			Bulgaria	Russia	Georgia	Germany	France
		With some difficulty	1,552	1,666	1,125	0,905	0,809
		Fairly easily	1,620	1,028	1,266	0,945	1,351
	At work (ref. yes)	No	1,274	1,200	1,771**	2,434***	2,324***
	Age (ref. 20 or <)	50+	0,052***	0,104**	0,177**	0,502	0,199**
		41-50	0,062***	0,111***	0,244**	0,131***	0,079***
		31-40	0,195***	0,225***	0,458*	0,090***	0,062***
		21-30	0,530*	0,556*	1,011	0,169***	0,351***
	Siblings	Number of siblings	0,869**	0,979	0,896	1,090	1,090
Living with father, ever lived separately for more than 3 months (ref. living 1 to 10 minutes from father)	Marital status father (ref. father widowed)	Still married / living with biological mother	0,848	.	1,000	.	.
		Ever divorced / separated from biological mother		.	3,866	.	.
		Other situation	0,266	.	1,785	.	.
	Gender (ref. daughters)	Sons	4,080***	0,958	8,217***	.	1,100
	Family type (ref. couple, own children in hh)	Single	130,134***	8,248***	86,696***	.	.
		Single, ever divorced	53,873***	28,649***	15,500**	.	.
		Single parent	16,908***	8,657***	13,660***	2,525	.
		Single parent, ever divorced	25,218***	10,718***	12,266***	2,216	.
		Couple, no children in hh	4,918***	1,903	1,681	.	1,128
		Couple, no children in hh, ever divorced	4,269	1,947	0,000	3,364	3,594
		Couple, children in hh ever divorced	0,000	1,180	9,778	1,291	2,230
		New constellated family	1,804	2,043	2,961	1,066	1,304
	Family type x gender	Single x sons	0,210***	1,677	0,139**	0,000	1,165
		Single, ever divorced x sons	0,249	0,803	3,134	0,000	1,366
		Single parent x sons	0,104*	0,000	1,928	0,000	0,000

		Bulgaria	Russia	Georgia	Germany	France
	Single parent, ever divorced x sons	0,383	1,204	15,423	0,000	12,374
	Couple, no children in hh x sons	0,437	0,616	1,234	0,000	.
	Couple, no children in hh, ever divorced x sons	0,000	2,038	.	0,000	0,896
	Couple, children in hh ever divorced x sons	.	0,918	0,344	0,000	0,655
	New constellated family x sons	0,319	0,885	0,004	6,202	1,166
If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,050	1,838	1,639	1,136	1,567
	Neither agree, nor disagree	1,013	2,295*	1,616	1,220	2,213
	Agree	1,554	1,761	1,305	2,395	2,803
Children should take responsibility for caring for their parents where parents are in need	(Strongly) disagree	0,615	.	0,047	0,268	0,445
	Neither agree, nor disagree	0,766	1,247	0,648	0,558	0,538
	Agree	1,267	1,089	0,814	0,559	0,575
Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,487	0,436	0,566	0,594	0,784
	Neither agree, nor disagree	0,579*	0,577	1,187	0,356	0,833
	Agree	0,831	0,694	1,094	0,439	0,664
Subjective health (ref. (very) bad)	Very good	2,390*	0,644	0,659	0,624	3,031
	Good	2,377*	1,167	0,777	0,823	3,101
	Fair	2,414*	1,165	0,836	0,462	4,329
Father / parents with limited disability (ref. yes)	No	1,050	1,757*	0,891	.	10,495**
HH owns home (ref. yes)	No	0,075***	1,026	0,612	0,162***	0,130***
HH able to make ends meet (ref. (very) easily)	With great difficulty	2,242**	0,696	1,264	0,671	0,338
	With difficulty	2,729**	0,916	1,193	1,097	0,882
	With some difficulty	2,092*	0,919	1,242	1,540	0,934
	Fairly easily	1,496	0,900	1,630	1,090	0,789

			Bulgaria	Russia	Georgia	Germany	France
	At work (ref. yes)	No	1,210	1,169	1,226	2,150*	1,910*
	Age (ref. 20 or <)	50+	0,444	0,339	1,638	0,857	0,068*
		41-50	0,453*	0,380*	1,760	2,228	0,135**
		31-40	0,624	0,482*	2,771*	1,719	0,265**
		21-30	1,465	0,797	2,934**	2,274	1,914
Siblings	Number of siblings	0,788***	0,930	0,916	1,084	1,156*	
Living 11 – 30 minutes from father (ref. living 1 to 10 minutes from father)	Marital status father (ref. father widowed)	Still married / living with biological mother	0,807	1,119	1,164		0,977
		Ever divorced / separated from biological mother	0,674	0,755	1,700		1,142
		Other situation	0,714	0,595	1,187		.
	Gender (ref. daughters)	Sons	0,438***	0,842	0,421***	0,868	0,853
	Family type (ref. couple, own children in hh)	Single	1,010	0,550	0,860	1,298	1,026
		Single, ever divorced	0,296	1,746	0,292	1,247	0,991
		Single parent	0,724	0,635	1,121	0,939	0,599
		Single parent, ever divorced	0,533	0,962	0,354	0,774	1,240
		Couple, no children in hh	0,707	0,755	1,014	1,070	1,403
		Couple, no children in hh, ever divorced	0,173	0,891	0,000	1,034	2,400*
		Couple, children in hh ever divorced	1,313	1,164	0,798	0,587	1,312
		New constellated family	0,568	0,869	0,289	0,873	1,002
	Family type x gender	Single x sons	1,578	0,775	1,907	0,828	1,052
		Single, ever divorced x sons	6,639*	0,454	25,946	0,934	1,512
		Single parent x sons	1,106	3,082	7,006	0,759	2,425
Single parent, ever divorced x sons		0,000	.	4,425	1,118	0,342	
Couple, no children in hh x sons		1,540	0,698	1,418	0,969	0,824	

		Bulgaria	Russia	Georgia	Germany	France
	Couple, no children in hh, ever divorced x sons	0,000	0,564	.	1,369	1,095
	Couple, children in hh ever divorced x sons	0,286	1,146	3,774	1,164	0,867
	New constellated family x sons	4,900*	0,863	7,698	1,701	1,429
If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,204	0,827	0,989	1,506	1,030
	Neither agree, nor disagree	1,289	0,925	1,411	1,464	1,105
	Agree	1,439	0,839	1,144	1,451	1,067
Children should take responsibility for caring for their parents where parents are in need	(Strongly) disagree	1,682	.	2,561	0,815	0,974
	Neither agree, nor disagree	1,647*	0,983	0,486	0,919	1,189
	Agree	1,622***	0,982	1,137	0,953	1,024
Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	0,967	1,047	0,635	1,410	1,403*
	Neither agree, nor disagree	0,882	1,069	0,591	1,349	1,061
	Agree	0,893	1,253	0,794	1,412	1,237
Subjective health (ref. (very) bad)	Very good	2,484*	1,686	0,656	3,288*	1,917*
	Good	2,350*	1,415	0,854	3,047*	1,967*
	Fair	2,977**	1,193	0,857	2,294	1,964*
Father / parents with limited disability (ref. yes)	No	1,104	1,353	1,129	0,878	1,099
HH owns home (ref. yes)	No	0,927	1,124	0,692	1,404**	1,108
HH able to make ends meet (ref. (very) easily)	With great difficulty	1,455	1,637	0,697	0,816	0,585*
	With difficulty	1,519	1,793	0,713	1,191	0,797
	With some difficulty	1,572	1,406	0,619	1,309	0,711
	Fairly easily	1,642	1,326	0,741	1,274	0,865
At work (ref. yes)	No	0,860	0,819	1,254	1,124	1,080
Age (ref. 20 or <)	50+	1,765	3,742**	4,937**	1,858	2,422*

			Bulgaria	Russia	Georgia	Germany	France
		41-50	1,342	1,812	3,267*	1,505	3,007**
		31-40	1,037	1,559	2,372	1,211	2,252*
		21-30	1,232	1,739	2,146	1,086	2,570**
	Siblings	Number of siblings	0,879**	0,950	1,003	0,951	1,032
Living more than 30 minutes from father (ref. living 1 to 10 minutes from father)	Marital status father (ref. father widowed)	Still married / living with biological mother	0,964	1,016	0,936		0,981
		Ever divorced / separated from biological father	.	1,333	11,713		1,782**
		Other situation	1,271	0,269	0,580		.
	Gender (ref. daughters)	Sons	0,365***	0,607**	0,337***	0,822	0,753*
	Family type (ref. couple, own children in hh)	Single	3,208***	1,394	1,459	2,686***	1,392
		Single, ever divorced	0,663	2,407	0,183	1,038	1,230
		Single parent	0,957	0,820	1,259	1,010	0,475*
		Single parent, ever divorced	0,528	1,203	0,467	0,703	0,891
		Couple, no children in hh	1,104	1,123	0,797	1,026	1,061
		Couple, no children in hh, ever divorced	0,864	6,268*	0,000	1,081	2,715**
		Couple, children in hh ever divorced	3,420	1,010	51,476	1,447	1,606
	New constellated family	0,837	0,823	0,191*	1,217	1,152	
	Family type x gender	Single x sons	0,961	1,723	2,319	0,788	1,197
		Single, ever divorced x sons	2,301	0,869	50,516	1,197	1,234
		Single parent x sons	0,397	1,069	4,643	1,241	2,157
		Single parent, ever divorced x sons	1,431	.	190,718	1,116	0,677
		Couple, no children in hh x sons	1,073	1,183	3,198	1,366	1,623*
Couple, no children in hh, ever divorced x sons		2,395	0,237	.	1,356	0,894	
Couple, children in hh ever divorced x sons		0,275	1,340	0,040	1,076	0,794	

			Bulgaria	Russia	Georgia	Germany	France
		New constellated family x sons	5,566**	1,045	9,425	1,585	1,118
	If their adult children were in need, parents should adjust their own lives in order to help them	(Strongly) disagree	1,346	0,916	1,081	0,720	1,048
		Neither agree, nor disagree	1,319	0,992	1,433	0,617*	0,873
		Agree	1,373	0,848	1,073	0,762	1,122
	Children should take responsibility for caring for their parents where parents are in need	(Strongly) disagree	1,663	.	0,794	1,155	0,982
		Neither agree, nor disagree	0,891	0,839	0,708	1,531*	1,017
		Agree	1,286*	1,037	0,957	1,169	1,060
	Children should have their parents to live with them when parents can no longer look after themselves	(Strongly) disagree	1,057	0,950	0,651	1,543*	1,135
		Neither agree, nor disagree	1,067	0,883	1,275	1,427*	1,045
		Agree	0,948	0,923	0,872	1,213	1,202
	Subjective health (ref. (very) bad)	Very good	1,852*	1,378	0,699	1,295	2,010**
		Good	1,548	1,109	0,848	1,218	1,887*
		Fair	1,831*	0,992	0,802	1,135	1,617
	Father / parents with limited disability (ref. yes)	No	1,211	1,272	0,957	1,176	1,033
	HH owns home (ref. yes)	No	1,230	2,145***	0,975	2,011***	1,528***
	HH able to make ends meet (ref. (very) easily)	With great difficulty	0,954	0,873	0,782	0,610	0,440***
		With difficulty	0,962	1,231	0,812	0,734	0,495***
		With some difficulty	1,128	1,202	0,637	0,838	0,605***
		Fairly easily	0,914	1,304	0,694	0,876	0,773**
	At work (ref. yes)	No	1,019	1,163	1,678**	1,517***	1,303**
	Age (ref. 20 or <)	50+	2,403*	2,850**	4,840**	1,818	1,092
		41-50	1,685	1,793*	3,224**	1,778*	13,08
		31-40	1,022	1,449	2,464*	1,313	0,956

			Bulgaria	Russia	Georgia	Germany	France
		21-30	0,889	1,132	1,583	1,078	1,134
	Siblings	Number of siblings	0,929	1,102*	1,072	1,074**	1,060**

\* p<0,05 \*\* p<0,01 \*\*\* p<0,001

Table 5b: Model fitting information by country

Country	Model	Model Fitting Criteria	Likelihood ratio tests		
		-2 Log Likelihood	Chi-Square	df	Sig.
Bulgaria	Intercept Only	15.278,462			
	Final	11.145,689	4.132,773	176	0,000
Russia	Intercept Only	9.836,334			
	Final	7.931,964	1.904,371	176	0,000
Georgia	Intercept Only	11.205,389			
	Final	7.970,563	3.234,826	176	0,000
Germany	Intercept Only	9.019,990			
	Final	7.663,561	1.356,429	176	0,000
France	Intercept Only	11.286,329			
	Final	9.463,292	1.823,036	172	0,000

Table 5c: Pseudo R-square by country

Bulgaria	Cox and Snell	0,554
	Nagelkerke	0,578
	McFadden	0,256
Russia	Cox and Snell	0,428
	Nagelkerke	0,452
	McFadden	0,191
Georgia	Cox and Snell	0,563
	Nagelkerke	0,592
	McFadden	0,275
Germany	Cox and Snell	0,332
	Nagelkerke	0,355
	McFadden	0,149
France	Cox and Snell	0,336
	Nagelkerke	0,365
	McFadden	0,161