How far do children move? Spatial distances after leaving the parental home

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A B S T R A C T

This research used geocoded data from 11 waves (2000–2010) of the German Socio-economic Panel Study to investigate the spatial distances of young adults’ initial move-outs (N = 2113) from their parents’ homes. Linear regression models predicted moving distances by factors at individual, family, household, and community level. Overall, home leavers moved across very small distances with a median value of less than 10 km. Greater distances were found for well-educated and childless home leavers who moved out at relatively young ages from high-income households located in less-urbanized regions. In line with developmental models of migration, young adults stayed closer if the parental household was still located at their place of childhood. We conclude that considering the spatial distance of move-outs may advance our understanding of individual passages to adulthood and intergenerational relations across the life course.

1. Introduction

How far do young adults move when they leave their parental home? Surprisingly, the rich literature on leaving home and parent–child proximity does not offer an answer to this straightforward question. Whereas research on leaving home mainly focuses on the timing, rather than the distance, of young adults’ move-outs, studies of parent–child proximity typically settled in after children have left the parental household and, thus, geographical distance has already been produced. This gap of research is partly due to a shortage of suitable data on the distances of residential moves. In recent years, however, large-scale panel surveys that follow individuals and their descendents across their lives have begun to make detailed geographical information available for scientific use. In the year 2000, the German Socio-Economic Panel Study (SOEP) started collecting data on the geo-coordinates of each sample household on an annual basis, allowing to calculate exact air-line distances of respondents’ residential moves. Today, this information is available for a substantial number of young adults who left the parental household between the years 2000 and 2010.

These data present a unique opportunity to investigate the spatial distances of initial move-outs. In this study, we take an exploratory approach proceeding as follows. First, we discuss the relevance of spatial distance as an outcome worthy of theoretical import into analyses of leaving home. Then we review the literature on leaving home and parent–child proximity, considering what factors at individual, family, household, and local community level may affect the spatial distance of move-outs. In our empirical investigation, we estimate air-line distances (in log-meters) of young adults’ residential moves using linear regression models (OLS).
2. Why study the distance of move-outs?

Leaving the parental home is widely considered a milestone in the passage to adulthood, representing an important marker that has profound implications in individual and family spheres. Most studies of leaving home, however, restrict their attention to the timing of exits from the parental household without taking into account their spatial dimension (e.g., Asssve et al., 2002; Ward and Spitzer, 2007; White, 1994, for a review). We propose that the latter represents a useful criterion for assessing how this transition may affect young adults and their families.

With regard to the individual passage to adulthood, social scientists typically endorse the view that leaving home constitutes a role transition that alters adult identities (e.g., Benson and Furstenberg, 2007; Liefbroer and Toulemon, 2010). This process, however, requires not only entering an adult role but also permanent acquisition and enactment of that role. In this respect, the implications of leaving home per se are rather unclear: On the one hand, establishing an own household constitutes a major change in young adults’ lives in the sense that it creates physical independence from their parents. But on the other hand, active parenting may extend beyond this transition and prolong young adults’ dependency. For example, if parents continue to assist nest-leavers in their everyday routines (e.g., cooking, cleaning, laundry), the process of separation might be delayed or even remain incomplete. Considering the availability of such localized services, it is obvious that spatial distance matters. Results from the Netherlands, for instance, showed that the chance of receiving support from mothers and fathers was substantially higher for young adults who lived within a geographical distance of 5 km from parents (Knijn and Liefbroer, 2006; Mulder and van der Meer, 2009). Where the receipt of localized services is concerned, short-distance leavers may thus not differ markedly from those who still coreside with their parents. In contrast, young adults who move across greater distances and relocate outside the parental sphere are likely to experience more radical changes after leaving home. These changes not only concern the level of support received from parents but also the disruption of local ties and the challenge of adapting to a new social environment. Overall, these life course considerations suggest that the spatial distance of move-outs may serve as an indicator of the degree to which leaving home necessitates, and promotes, young adults’ independence and autonomy.

From a family perspective, individual dimensions of residential choice are inextricably linked to the presence and quality of kinship ties. That is, “individual choices oriented towards reaching personal goals might compete or interfere with the desire to maintain family solidarity” (Michielin and Mulder, 2007, p. 656). Bengtson (2001) emphasized the increasing importance of intergenerational contacts in modern “beanpole” families. In the typology of intergenerational solidarity, residential proximity is seen as a measure that reflects earlier and present parent–child relationships as well as a factor that conditions other dimensions of solidarity, pointing to future opportunities to maintain contact, share activities, and exchange support. In this respect, the relevance of young adults’ initial residential decisions is twofold: First, the spatial distance of move-outs may reflect earlier and present family life, including characteristics of family members and of the parental household. Parents and siblings, for example, may serve as role models influencing young adults’ initial residential decisions. They also represent “location-specific social capital” (DaVanzo, 1981) that increases the costs of moving far away, in particular when family relations are close.

Second, geographical distance in young adulthood may have profound long-term implications for the development of intergenerational relationships and their quality in later life. One of the basic tenets of life course research is the notion that characteristics of early transitions have lasting consequences. That is, experiences related to leaving home are likely to be carried over into later family life (Leopold, 2012). Regarding geographical proximity, empirical findings indicated that with greater distances, young adults and their parents maintained less contact (Bucx et al., 2008). Over time, lower levels of intergenerational interaction and fewer shared experiences may entail detrimental effects on the strength of affective ties as well as the awareness of each other’s needs, possibly reducing levels of functional support in later life (Rossi and Rossi, 1990). Importantly, children who moved across greater distances and established their lives in a different local context are later more likely to be tied to an area distant from their parents. This, in turn, may incur high opportunity costs once the issue of assisting elderly parents arises (Konrad et al., 2002). Overall, these life course considerations suggest that the spatial distance of young adults’ initial move-outs may be an important predictor of parents’ opportunities to receive intergenerational support toward the end of their lives.

3. Theoretical considerations and previous research

There are only very few studies that offer at least some information on the spatial distance of children’s move-outs. Mayer and Schwarz (1989) examined self-reported categorical data on moving distances collected retrospectively by a West German life-history study; Mulder and Clark (2000) analyzed US data from the Panel Study of Income Dynamics using a measure of whether the child relocated within or outside a state. Despite the limitations of these data, both studies clearly showed that long-distance move-outs are a rare phenomenon: Less than 15% of the German respondents reported on moving distances of 300 km or more (Mayer and Schwarz, 1989) and less than 15% of the US sample left their state (Mulder and Clark, 2000). Similar results were reported in studies that did not look at initial departures from the parental home but at moves in general. Farley (1996), for example, found that 80% of young adults’ residential moves in the United States between the years 1985 and 1990 were local. In Germany, the prevalence of young adults’ short-distance migration even increased between...
1950 and 1980: By the beginning of the eighties, about 50% of all residential moves by German adults aged 20–30 did not exceed a geographical of 20 km (Wagner, 1989).

What are the reasons behind this predominance of local moves? Research on leaving home has largely neglected spatial distance as an outcome of young adults’ initial residential decisions. As Mulder and Clark (2000, p. 426) noted, “the theory on spatial outcomes is relatively underdeveloped, especially with respect to the distances that nest-leavers move”. As a result, we lack an integrative theoretical framework for understanding why most home leavers relocate close to their parental home and why some move across greater distances. There is a rich literature, however, on geographical proximity between parents and their non-coresident children. This line of research has discussed a variety of exogenous factors at individual, family, household, and local community level (e.g., Cadwallader, 1992; Elder et al., 1996; Garasky, 2002). This classification provides a useful point of departure for the present study. Because we focus only on first move-outs that create spatial distance between the generations, we restrict the following discussion to factors that may be relevant for young adults’ initial migration decisions.

3.1. Individual characteristics

An individualistic perspective posits that spatial distance results from young adults’ locational choices. In standard economic theory, individuals choose a location that maximizes their utility (Helderman et al., 2005). Young adults weigh the expected gains of alternative locations against their costs. Gains and costs are both financial and nonfinancial (Greenwood, 1975; Sjaastad, 1962). For example, adult children may benefit from employment opportunities, but also from independence and privacy. Costs may be incurred from the loss of parents’ provision of low-cost services, but also from fewer opportunities of face-to-face contact, which is often highly valued.

Considering such costs and benefits, a number of individual characteristics are likely to influence young adults’ location decisions at their first move-outs. Several analysts have reported that age is an important correlate of parent–child proximity. Adult children typically leave the parental home between the end of their teenage years and the end of their twenties (Corijn and Klijzing, 2001; Goldscheider and Goldscheider, 1993). At this early stage, many young adults may still rely on their parents as a source of instrumental, emotional, and financial assistance, supporting the expectation that initial move-outs should rarely bridge greater distances. Regarding the fewer cases in which greater distances occur, one apparent motive is to move for educational or occupational purposes. According to human capital models, highly-educated individuals with more specialized abilities have higher propensities to migrate in order to make further progress and maximize their educational returns (Featherman and Hauser, 1978). Accordingly, numerous studies have shown that the spatial distance between the generations is positively associated with children’s educational attainment (e.g., Malmberg and Pettersson, 2007; Silverstein et al., 1995).

With regard to gender differences, Fuguitt et al. (1989) proposed that daughters are more likely to “escape” to urban areas because their personal autonomy is more strongly restricted by traditional gender roles in rural communities. Alternatively, daughters may put more value on face-to-face contact to parents because on average, they invest more in family relationships than sons (Rossi and Rossi, 1990). Given these ambiguities, it is not surprising that empirical findings on gender differences in spatial distance to parents are mixed. Analyses of register data from the Netherlands (Michielin et al., 2008) and Sweden (Malmberg and Pettersson, 2007) showed that daughters lived farther away than sons in early and middle periods of adult parent–child relationships. Other studies found no gender differences in parent–child proximity (Lin and Rogerson, 1995; Fokkema et al., 2008).

The child’s relationship status represents another prominent factor that is likely to influence leaving home and parent–child proximity. Along with education and employment, union formation has been discussed as one of the most important reasons for moving out (e.g., Billari et al., 2001). Analysts of leaving home have argued that the routes to live with or without a partner in the new household are qualitatively different (Mulder and Clark, 2000). Move-outs to live with a partner, for example, are likely to reflect joint decisions considering the opportunities and constraints of both partners. With regard to the prevalence of leaving home for union formation, results from the Netherlands revealed a clear age gradient. Whereas leaving for independence (i.e., to live without a partner) represented the predominant pattern at younger ages, leaving for union formation became more prevalent after the age of 21 and represented the principal pathway of leaving home at more advanced ages (Zorlu and Mulder, 2011).

With regard to the spatial distance of residential moves, the direction of the expected effect is again unclear. According to the “commitment hypothesis” (Mulder and Wagner, 1993), married individuals are less mobile than singles because usually, both partners are committed to the same region. As most unions are formed within localized partner markets, leaving this area would incur high costs for the couple, disrupting two persons’ local ties. A number of studies provided empirical support for this view. Wagner (1989), for example, found that 80% of all moves that coincided with marriage did not exceed a distance of 20 km. A contrasting account posits that long-distance moves are associated with greater sacrifices and, thus, more likely to be related to the event of union formation representing a major change in life (Guzzo, 2006). Furthermore, the presence of a partner in the new household may decrease the need for frequent contact with family members. These considerations were supported by data from the Netherlands and the United States, showing that transitions to marriage or cohabitation were associated with greater distances rather than local moves (Michielin et al., 2008; Guzzo, 2006).

Finally, migration background has been discussed as an individual attribute influencing parent–child proximity. Immigrants strongly rely on local networks of relatives and friends from their country of origin that often constitute the only
sources of social support (Aslund, 2005). Therefore, immigrants’ offspring are expected to move primarily to locations within the same local community. This reasoning is supported by research on immigrants’ residential behavior, indicating higher parent–child proximity (e.g., Mulder, 2007).

3.2. Family and household characteristics

A number of cross-sectional studies examined parent–child proximity at different stages of the family life course, assuming that spatial distance reflects specific age-related needs of both generations. At a general level, one consistent finding from this research is that although residential proximity tends to decrease temporarily when adult children reach middle ages, at least one child lives within 1 h from parents in most families (Hank, 2007; Lauterbach and Pillemer, 2001).

More specifically, a number of family and household characteristics have been related to different levels of parent–child proximity. Parents’ education and economic resources, for example, were found to be positively correlated with spatial distance to adult children both in Germany (Lauterbach and Pillemer, 2001) and in the United States (Garasky, 2002). One possible reason is a motive of status maintenance, suggesting that parents from higher social strata are more inclined to accept greater distances resulting from children’s moves to areas that allow maximizing educational attainment and returns to education. A related pathway is intergenerational transmission of behavior; that is, the distance of parents’ own initial move-outs may constitute points of reference for their children’s later residential decisions. With regard to parents’ economic resources, the standard hypothesis refers to transferable versus location-specific types of intergenerational assistance. Local moves are expected particularly if parents lack the financial means to support their children across greater distances.

The marital status of parents indicates, on the one hand, whether young adults’ families of origin are intact. Because marital disruption was consistently found to increase the tension between the generations, it appears straightforward to postulate greater distances when leaving the parent with whom the children remained. An alternative view is that the decision to leave behind a “lone parent”, typically the mother, is more strongly restricted by feelings of affection and obligation, leading to short-distance moves that facilitate emotional support exchange.

Another influential factor at family level is the presence of a child of their own, augmenting young adults’ need for parental help. Regular childcare assistance from parents is a location-specific type of support that requires residential proximity. Accordingly, cross-sectional evidence indicated higher parent–child proximity in the presence of a grandchild (e.g., Malmberg and Pettersson, 2007).

Characteristics of siblings represent a further set of family-related factors that may influence residential decisions. One aspect is sibship size: If parents’ resources are distributed over a larger number of siblings, the reduced supply of support may lower a child’s expected utility of living near the parental home. Accordingly, studies have shown that the number of siblings is negatively correlated with parent–child proximity (e.g., Shelton and Grundy, 2000). A second aspect is birth order: One hypothesis that has been advanced in the literature is that first-borns are less constrained in their location decisions, whereas later-born children must consider residential choices of their siblings who moved out before (Konrad et al., 2002).

3.3. Characteristics of the community

We consider two perspectives on the influence of the community in which the parental household is located (see Garasky, 2002; Goldscheider and DaVanzo, 1985). First, demographic push–pull models posit that individuals are attracted by prospering areas and pushed from regions that are less developed and/or in decline. In Germany, the standard of living remains considerably higher in the West compared to the new federal states (former GDR) even two decades after reunification. This suggests that the predominance of local moves may be less pronounced in Eastern regions. Furthermore, substantial gender differences in mobility were found among East Germans living in the periphery (Kroehnert and Klingholz, 2007). Young women frequently depart from these areas whereas men are left behind. The resulting surplus of young men has received a lot of attention in the public debate. The most common assumption is that women’s higher levels of education drive this selective outmigration. Considering young adults’ initial move-outs, the local youth unemployment rate is another relevant factor at community level. If the parental household is located in a district with a high level of youth unemployment, difficulties to find adequate jobs locally might require greater moving distances. A further aspect reflecting occupational and educational opportunities is the degree of urbanization. As discussed above, it is reasonable to assume that the relationship between urbanization and parent–child proximity is moderated by educational attainment and aspirations. That is, children from suburban and rural areas only move farther away if they have reached higher educational degrees. In more urbanized areas, tertiary education and specialized job markets are available and thus do not necessitate moves across greater distances (Hektner, 1995).

Second, developmental models of migration emphasize the individual’s familiarity with his or her home region. Young adults are not only emotionally attached to the local community where they grew up, but they also have better access to its resources, such as the job and marriage market, through dense networks of friends and relatives (Goldscheider and DaVanzo, 1989). If social capital is tied to the community of the parental home, it increases the costs of long-distance migration (Elder et al., 1996). The duration of residence at a specific location before leaving home should therefore reduce moving distances, in particular if the parental household is still located where young adults spent their childhood. A study by Lin and
Rogerson (1995) supported this reasoning, reporting a negative relationship between the years that parents spent in their current residence and the spatial distance to their adult children.

4. Materials and methods

Our empirical analyses are based on data from the German Socio-Economic Panel Study (SOEP), which is a large, representative household and person study (Wagner et al., 2007). Each person in a household aged 17 or older gives his or her own answers. For children under 17, proxy information is available from the parents’ and household questionnaires. In 1984, the SOEP started in West Germany with a sample of over 12,000 individuals in almost 6000 households. Several new subsamples were added in the following years, notably a sample of East Germans in the year of reunification (1990) and a major enlargement in the year 2000. In the 2010 wave, the study population consisted of 22,870 individuals in 10,745 households. Since the year 2000, information on geographic coordinates is available for each household, allowing the calculation of exact airline distances between households. Our analysis draws on these data from an observation period covering 11 waves between the years 2000 and 2010.

4.1. Sample selection

We proceeded in five steps to define a study population. First, we selected a gross sample including all observations of children aged 16 and older who lived with one or both parents in at least one of the 27 SOEP waves conducted between 1984 and 2010 (n = 10,185). Those included not only biological children, but also adopted, step, and foster children. Second, we restricted this sample to 6268 persons observed at least once between the years 2000 and 2010, removing 3917 young adults who left the parental home or dropped out of the survey before the SOEP started to collect data on the geocodes of residential moves. Third, we further removed 812 individuals who were living in the parental household but were older than 20 years when first observed in the SOEP, confining the study population to individuals who entered the panel aged 20 or younger. This exclusion was aimed at selecting a sample of initial home leavers. Some young adults might represent a qualitatively different population of “boomerang kids” who had already experienced their first move-out and had later returned to the parental home. Home returning is not an uncommon phenomenon although the rates are considerably lower in Germany than in the United States (Corijn and Klijzing, 2001). A threshold of age 20 when first observed in the SOEP reduced the probability of such unobserved instances in our sample, ensuring that young adults were actually “at risk” of experiencing their first move-out. This restriction also reduced the potential age bias in our sample towards children who still lived with their parents at advanced ages. Fourth, we defined a further upper age bound because our focus is on residential mobility at earlier life course stages and the factors related to leaving home at older ages are distinctive. Even after the previous restriction, the theoretical maximum age of a child observed in the parental household between the years 2000 and 2010 remained rather high: A child who was first observed at age 20 in the year 1984 and never left the parental home would have entered the household number of any one parent in the later wave. This definition did not only identify departures from a household shared with both parents, but also move-outs from only one parent. Furthermore, it is important to note that this definition applied to young adults who established own households. It did not cover move-outs to colleges for post-secondary undergraduate education or residential moves that were forced by military service obligations. Based on this identification strategy, we observed a total of 2113 young adults leaving the parental home between the years 2000 and 2010. In a final step, we removed all home stayers, restricting the sample to those who actually moved out within our window of observation (N = 2113). As our analysis focused on the distance of move-outs, data on the dependent variable were only available for home leavers.

4.2. Dependent variable

The SOEP assigns a household identification number to each respondent. All persons living in the same household share one household number. If a person leaves a household between two waves, a new household number is assigned to this person. A change of household numbers between two waves therefore indicates a residential move.

We defined a move-out from the parental home between two waves if (a) the child shared a household number with at least one parent in the earlier wave, (b) the child’s household number changed between the waves, and (c) the child’s new household number did not equal the household number of any one parent in the later wave. This definition did not only identify departures from a household shared with both parents, but also move-outs from only one parent. Furthermore, it is important to note that this definition applied to young adults who established own households. It did not cover move-outs to colleges for post-secondary undergraduate education or residential moves that were forced by military service obligations. Based on this identification strategy, we observed a total of 2113 young adults leaving the parental home between the years 2000 and 2010. For each move-out, the dependent variable was calculated from geographical coordinates as an exact air-line distance in meters between the parental home and the child’s new residence.

4.3. Independent variables

The respondent’s age, gender, education, relationship status, and migration background were included as individual characteristics hypothesized to influence the distance of move-outs. We defined quintiles from the age distribution over
the entire sample of 2113 move-outs to test for non-linear relationships. Young adults’ education was measured by three indicator variables: education attained was equal to or less than basic secondary school (9 or fewer years of education); education attained equaled intermediate secondary school (10 or 11 years of education); and education attained was equal to or higher than upper secondary school (12 or more years of education). Relationship status was operationalized through a binary variable indicating whether the respondent had a non-co-resident partner before leaving home. Finally, we used an indicator variable for migration background.

The survey design of the SOEP allowed combining individual data with detailed information on family members and household characteristics. First, we included the father’s education, measured by three indicator variables analogical to the respondent’s education. As an indicator for economic resources, we used the logged per-capita income (in Euros) of the parental household. Furthermore, a binary variable indicated whether the respondent lived with only one parent. This variable was coded one if the parent was widowed, divorced or separated from the other parent. Sibling characteristics were operationalized by two measures, the logged number of siblings and an indicator variable for first-born children. Finally, we introduced two measures of fertility, one indicating whether a respondent already had a child of his or her own living in the parental household, the other, whether a respondent was pregnant.

All individual and household data collected by the SOEP can be linked to regional information from external sources using the Nomenclature of Units for Territorial Statistics (NUTSs) geocode standard that is developed and regulated by the European Union (Goebel et al., 2008). At the NUTS-3 Level, regional data is available for 441 German districts. This enabled us to introduce two measures reflecting the economic and demographic conditions of each household’s local community. First, we used the local youth unemployment rate (i.e., the proportion of the youth labor force aged 15–24 that is unemployed), a continuous variable, ranging from 1.7% to 26.8%, as an indicator for labor market conditions of the district in which the respondent resided before moving out. Second, we measured the urbanization of the district by four indicator variables according to the definitions of the German Federal Institute for Research on Building, Urban Affairs and Spatial Development. Nucleated towns are cities of more than 100,000 inhabitants. Outside nucleated towns, the urbanization of districts is defined by residential area and population density. Urban areas include urban districts of more (urban hinterland) or less (rural hinterland) than 150 people per square-kilometer. Rural areas include rural districts of more or less than 100 people per square-kilometer. In addition to these measures, a binary variable indicated whether the parental household was located in Eastern Germany (new federal states). Finally, we operationalized the duration of residence in the local community using information from the biographical questionnaire. Respondents reported on whether they still lived at the place where they spent their childhood. A binary variable was coded one if the parental household was no longer located at the respondent’s place of childhood.

The values of almost all predictor variables, including external data on the degree of urbanization and the youth unemployment rate, were obtained from the (year of) the earlier wave, that is, before a residential move took place. The only exceptions are the indicator variables for young adults’ education: In Germany, educational degrees are mostly awarded in May and June. The annual data collection of the SOEP, however, is typically carried out in March. We therefore used the updated information on young adults’ education from the later wave in which the move-out was observed.

4.4. Multiple imputation of missing data

Three variables had substantial shares (i.e., more than 10%) of missing data: Information on the respondent's education was missing in 23.9% of all cases; information on the father’s education in 30.1% of all cases; and spatial distances could not be calculated for 19.3% of all move-outs observed. Missing values on the outcome variable represent unsuccessful attempts to follow up respondents after residential moves within Germany. In such cases, the spatial distance of a move-out could not be calculated because geographical information on the location of the new residence was not available in the SOEP data. We imputed all missing data by a sequence of chained equations (Royston, 2009; van Buuren et al., 1999), generating 30 estimates for each missing value. The imputation procedure was based on a background model that included all variables from the multivariate models as well as information on the residential status after leaving home (see below) as an auxiliary variable. Missing values on the metric measures, moving distance and parents’ household income, were imputed by predictive mean matching. This procedure imputes empirically observed values from similar cases instead of regression estimates. Parameter estimates and standard errors in the multivariate analysis were calculated by Rubin’s rules (Rubin, 1987). Multiple imputation adjusts for the fact that imputation involves uncertainty with regard to the missing values and avoids under-estimation of standard errors by taking into account the variation between and within imputations. Table 1 presents descriptive information on all variables before and after imputation of missing data.

4.5. Model

We used ordinary least squares regression models (OLS) to estimate the spatial distance of young adults’ move-outs. Because the distance variable was skewed to the right ($M = 67.2$ km, $Median = 9.3$ km), we estimated its logarithmic calculus which was distributed approximately normal.

The conventional estimator of variance in the OLS regression requires that observations are independent. This was not the case in our data, as we observed departures of two or more children from the same parental household in 984 of 2113 cases (46.6%). In the majority of these cases ($n = 754$), two children moved out from the same parental household. But we also ob-
served 230 instances of three up to five children leaving the same household between the years 2000 and 2010. In technical terms, these observations are clustered within groups (i.e., households). Clustering affects the standard errors of the estimated coefficients as the error terms are not identically distributed across all move-outs observed. One strategy to analyze such data is to calculate robust standard errors that account for clustering at the individual level (Bye and Riley, 1989). In the present study, we used the clustered sandwich estimator that allowed for intra-household correlation and only required that move-outs were independent across households.

5. Results

5.1. Descriptive results

Table 2 presents descriptive information on the distribution of the dependent variable, the spatial distance of young adults’ initial move-outs. The table shows the overall distribution of moving distance (left column) as well as two conditional distributions, separating the sample once into three groups according to their level of education (low, intermediate, high) and once into two groups according to their residential status after the move-out had taken place. The latter comparison pertains to the fact that our multivariate models did not allow considering one of the most pertinent issues in the literature on nest-leaving, namely different routes out of the parental home: First, our yearly-updated data on residential status were not...
sufficient to determine the actual pathway of leaving home. For example, if the respondent coresided with a partner at the later wave, we had no information about (a) whether the respondent had actually moved in with this partner when leaving the parental home, and (b) whether this partner was the non-coresident partner observed at the earlier wave (measured by the indicator variable for whether the respondent lived in a relationship). Second, data from the later wave could not be included as an exogenous variable predicting the distance of preceding moves. For these reasons, we only present descriptive results on the relationship between a home leaver’s residential status at the later wave and the spatial distance of the preceding move-out. The variable residential status comprised two categories. Those living “with partner” coresided with their partner at the later wave whereas young adults living “without partner” either had no partner or did not coreside with their partner.

The first column of Table 2 shows that overall, young adults moved across very small distances. Ten percent moved across an air-line distance of less than 500 m, the first quartile amounted to less than 2 km, and over half of the sample relocated less than 10 km from the parental home. Even the 75 percentile (69.5 km) remained within 1 h of travel time.

Looking at different levels of education, we observed a clear-cut pattern reflecting the expected positive association between educational attainment and moving distance. This relationship held for almost each percentile displayed, but sizable differences appeared only in the upper half of the distribution. The 75 percentile, for instance, revealed a considerable educational gradient of moving distance. Three quarters of young adults with low levels of secondary education moved across less than 20 km. At intermediate levels, the corresponding number was not much higher – but for respondents with upper secondary education it amounted to almost 130 km. Note, however, that local moves represented the predominant type across all educational levels. Overall, we observed long-distance moves (i.e., 100 km or more) for 9.4% of low-educated respondents, compared to 14.9% of those with intermediate secondary education and 29.6% of young adults with upper secondary education.

A discernible pattern was also found for the relationship between a home leaver’s residential status and moving distances. Those who lived with a partner in the new household had relocated closer to their parental home compared to young adults who lived without a partner. Three of four young adults who lived with a partner, for instance, resided within 30 km from their former home. For young adults who lived without a partner, the corresponding number amounted to almost 90 km.

5.2. Multivariate results

Table 3 presents unstandardized estimates predicting young adults’ moving distance. The first equation (Model 1) includes only main effects of predictor variables at individual, family, household, and community level. The second equation (Model 2) builds upon this specification, adding two types of multiplicative terms to test for interactions: The first interaction tested whether women moved farther away than men in Eastern Germany; the second, whether high education increased spatial distances only if young adults moved out from less urbanized areas.

Model 1 shows that relatively young home leavers from the second quintile of the age distribution (aged 20) moved across greater distances whereas late leavers from the fifth quintile (aged 25–35) stayed closest to their parents (cf. Leopold, 2012). Overall, women and men did not differ in their moving distances. Not surprisingly, the estimates for the respondents’ education resembled the descriptive results. We did not observe statistically significant differences between low and intermediate educational levels, whereas high levels of secondary education were associated with greater moving distances. Unlike the descriptive results on residential status after the move-out, having a partner before leaving home did not show any relationship to moving distance. Those who were single did not differ from those who had a partner. We also found no differences between the moving distances of immigrants and German natives.
Among the family and household variables, the estimate for highly-educated fathers was positive but did not reach conventional levels of statistical significance. Previous studies on parent–child proximity interpreted parental education mainly as a proxy for economic resources (e.g., Garasky, 2002; Lauterbach and Pillemer, 2001). We were able to measure the latter more directly using the logged per-capita income of the parental household. This variable revealed a clear positive effect net of the indicators of father's and children's education, pointing to the importance of transferable (as opposed to location-specific) intergenerational assistance for young adults' spatial mobility. With regard to the presence of one or both parents, spatial distances did not differ significantly between young adults who were living with a single parent compared to those living in intact families. The indicators of sibship size and birth order did not show any effects either, suggesting that sibling characteristics were not related to the spatial distances of initial move-outs. We tested a series of alternative specifications, introducing, for example, an indicator variable for only children, birth order as a continuous variable instead of an indicator variable for first-born versus later-born children, and an indicator variable for whether a sibling had moved out previously. All alternative specifications, however, led to a worse model fit (estimates not shown). Overall, no impact of sibling characteristics on moving distance was observed. With regard to the respondent's fertility, we found the expected relationships. Young adults who had a child of their own, increasing their need for location-specific support (i.e., parents' childcare assis-

Table 3
Ordinary least squares regressions of logarithmic moving distance (N = 2113).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1 B</th>
<th>SE B</th>
<th>Model 2 B</th>
<th>SE B</th>
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<td><strong>Individual factors</strong></td>
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<td>Age quintiles (Ref.: 3rd: 21–22)</td>
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<tr>
<td>1st: 16–19</td>
<td>.31†</td>
<td>.17</td>
<td>.30†</td>
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<td>2nd: 20</td>
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<td>.19</td>
<td>.59†</td>
<td>.19</td>
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<td>4th: 23–24</td>
<td>−.20†</td>
<td>.19</td>
<td>−.22†</td>
<td>.19</td>
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<td>5th: 25–35</td>
<td>−.31†</td>
<td>.17</td>
<td>−.34†</td>
<td>.17</td>
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<td>Female (Ref.: male)</td>
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<td>−.13</td>
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<td>Educationa (Ref.: low)</td>
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<td></td>
<td></td>
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<td>Intermediate</td>
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<td>.17</td>
<td>.22</td>
<td>.17</td>
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<td>High</td>
<td>1.21***</td>
<td>.17</td>
<td>.89***</td>
<td>.26</td>
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<tr>
<td>In a relationshipb (Ref.: no)</td>
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<td>.12</td>
<td>−.18</td>
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<tr>
<td>Migrantc (Ref.: no)</td>
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<td>.15</td>
<td>−.04</td>
<td>.15</td>
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<td><strong>Family and household factors</strong></td>
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<tr>
<td>Intermediate</td>
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<td>.15</td>
<td>−.03</td>
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<tr>
<td>High</td>
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<td>.18</td>
<td>.35†</td>
<td>.18</td>
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<tr>
<td>Per-capita household income (log)</td>
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<td>.14</td>
<td>.39**</td>
<td>.15</td>
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<td>Living with one parent (Ref.: both)</td>
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<td>.14</td>
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<td>Number of siblings + 1 (log)</td>
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<td>.15</td>
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<td>−.63†</td>
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<td>East Germany × Female</td>
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<td>.89***</td>
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<td>−.03</td>
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<td>.17</td>
<td>.62***</td>
<td>.16</td>
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<td><strong>District (Ref.: nucleated town)</strong></td>
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<td>Urban hinterland</td>
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<td>.16</td>
<td>−.05</td>
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<td>.21</td>
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<td>Rural area</td>
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<td>.19</td>
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<tr>
<td>Urban hinterland × Education high</td>
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<td>Rural hinterland × Education high</td>
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<td>.34</td>
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<tr>
<td>Rural area × Education high</td>
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<td></td>
<td>.78**</td>
<td>.35</td>
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<td>Constant</td>
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<td>Adj. R²</td>
<td>.11</td>
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<td>.12</td>
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**Note:** SOEP, release 2011, own calculations. Analyses based on 30 sets of imputed data.

**a** Low = basic secondary school; intermediate = intermediate secondary school; high = upper secondary school.

**b** Non-coresident partner present at the earlier wave (i.e., before the move-out).

**c** First- and second-generation immigrants.

**d** Includes only children.

**e** Own child living in the parental household. Number of clusters: 1578.

† p < .01.

**p** < .05.

*** p < .001.

Among the family and household variables, the estimate for highly-educated fathers was positive but did not reach conventional levels of statistical significance. Previous studies on parent–child proximity interpreted parental education mainly as a proxy for economic resources (e.g., Garasky, 2002; Lauterbach and Pillemer, 2001). We were able to measure the latter more directly using the logged per-capita income of the parental household. This variable revealed a clear positive effect net of the indicators of father's and children's education, pointing to the importance of transferable (as opposed to location-specific) intergenerational assistance for young adults' spatial mobility. With regard to the presence of one or both parents, spatial distances did not differ significantly between young adults who were living with a single parent compared to those living in intact families. The indicators of sibship size and birth order did not show any effects either, suggesting that sibling characteristics were not related to the spatial distances of initial move-outs. We tested a series of alternative specifications, introducing, for example, an indicator variable for only children, birth order as a continuous variable instead of an indicator variable for first-born versus later-born children, and an indicator variable for whether a sibling had moved out previously. All alternative specifications, however, led to a worse model fit (estimates not shown). Overall, no impact of sibling characteristics on moving distance was observed. With regard to the respondent's fertility, we found the expected relationships. Young adults who had a child of their own, increasing their need for location-specific support (i.e., parents' childcare assis-
tance), relocated closer to the parental home. The indicator variable for pregnancy also pointed to smaller moving distances but was not statistically significant.

The results of the community-level measures suggested, first, that a district’s youth unemployment did not appear to be a relevant push factor for initial migration decisions of young adults. We found marked differences, however, between the moving distances of East Germans and West Germans, revealing greater distances of young adults’ initial move-outs in Eastern regions. We further observed the expected relationship between a district’s urbanization and moving distances. Move-outs from rural areas bridged greater distances compared to departures from parental households that were located in nucleated towns. A sizeable effect was also found for the variable indicating whether the parental household was still located at the respondent’s place of childhood. If this was the case, young adults moved across significantly smaller distances and thus were particularly likely to relocate within the same local community. This result is in line with previous studies from the United States (e.g., Lin and Rogerson, 1995) and supports developmental models of migration.

Finally, we turn to the interaction effects presented in Model 2. The first interaction tested whether young women were more mobile than young men in Eastern Germany. This interaction term was highly significant and once it was introduced, the main effect of Eastern versus Western Germany faded. This result supports the contention of female outmigration from the East of Germany, suggesting that the surplus of men in the Eastern periphery is at least to some extent an outcome of initial migration decisions. The remaining set of interaction terms indicated, as expected, that the relationship between urbanization and parent–child proximity was moderated by educational attainment. The interaction terms showed that longer-distance moves from rural areas were more likely among the well-educated children. This interaction accounted entirely for the main effect of low urbanization and partly for the main effect of high education.

The model fit was improved by the inclusion of interaction terms in Model 2. But overall, the low R-squares indicated that a substantial share of the variance of moving distance remained unexplained in our models.

6. Discussion

The prime aim of this study was to shed new light on the initial migration decisions of young adults. Despite a considerable amount of research on the timing of exits from the parental home, only little was known about the spatial distance of these move-outs. Our exploratory investigation addressed this deficit. Panel data from 11 waves of the SOEP (2000–2010) enabled us to predict moving distances by factors at individual, family, household, and community level. Rich personal and contextual information was available in high resolution for a substantial number of move-outs, allowing the inclusion of regional indicators at the district level and an exact outcome measure of geographical distance in meters.

An important general finding from these data is that initial move-outs rarely bridged greater distances. Our results corroborate previous research pointing to the prevalence of short-distance moves (Mayer and Schwarz, 1989; Mulder and Clark, 2000). About three of four home leavers relocated within 1 h of travel time to parents; over half of the sample relocated less than 10 km from their parental home; and a quarter of home leavers even remained within walking reach, not exceeding a distance of 2 km. Even among the highly-educated, longer-distance move-outs were the exception rather than the rule.

With respect to our initial discussion of how the transition out of the parental home affects young adults and their families, these results suggest, first, that most home leavers may not experience radical changes in their day-to-day lives after moving out. That is, short-distance movers do not face a new social environment and are unlikely to disrupt local ties. We proposed that spatial distance to parents after leaving home may, at least to some extent, affect the degree to which an adult role is subsequently acquired and enacted. In this respect, our findings demonstrated that “stay-at-home’s” are accompanied by a sizeable group of “stay-in-town’s”. As shown in studies of proximity and support exchange, the latter are more likely to receive parental assistance (e.g., Mulder and van der Meer, 2009). Thus, we recommend that analysts of leaving home should distinguish between forming an independent household and separating from the parental sphere when assessing how this transition may affect individual passages to adulthood: Studies that focus on (the timing of) leaving home only capture young adults’ transitions to an own household. While this is an appropriate strategy to address a variety of research questions, it implicitly assumes that moving next door is equivalent to relocating in a new local community outside the parental sphere. Studies that are particularly concerned with home leavers’ autonomy should therefore consider the spatial distance of move-outs.

From a family perspective on the structural dimension of solidarity (Bengtson and Roberts, 1991), our investigation corroborates previous research that has consistently found high levels of intergenerational proximity. Importantly, life course considerations and developmental models of migration suggest that the majority of short-distance leavers will continue to reside close to their parents, setting the stage for intergenerational support in aging families. In this respect, it is interesting to compare our results with those of Malmberg and Pettersson (2007) who analyzed Swedish register data using a study population that consisted mainly of adult children aged 40–50. Their study revealed that 38% of these children lived less than 5 km from at least one parent and 18% even less than 1 km. The similarity to our results on move-outs in earlier life points to the potential long-term importance of distances produced by children’s initial departures, suggesting a considerable temporal stability of high parent–child proximity.

There are some limitations to this study that should be noted. First, some potentially important variables were not available in our data. For instance, we lacked information on the quality of parent–child relationships. Although the SOEP collected this information in the 2001 wave, valid responses were only available for a very small fraction of our sample. In
terms of the model of intergenerational solidarity, these missing data precluded analyses on the relationship between the affective and the structural dimension of solidarity, investigating, for example, the early characteristics and emergence of “intimate but distant”, “right knit”, or “detached” types of parent–child relationships (Silverstein et al., 1997).

Second, although we identified a number of predictors, a substantial share of the variance of moving distance remained unexplained in our models. As a result, our capacity of predicting the distances of initial move-outs is limited. This shortcoming calls for more refined modes that include additional explanatory variables. Furthermore, we consider it worthwhile to look more closely at different reasons for leaving home and, accordingly, at different routes out of the parental home. Our data and research design only allowed presenting some descriptive information on the residential status after the move-out. These results suggested that both partners are often tied to the same region, supporting the commitment hypothesis (Mulder and Wagner, 1993). In future research, it would be desirable to account more fully for the heterogeneity of move-outs with regard to the subsequent living arrangement, educational career, and employment status.

From a family life course perspective, future research should build upon this study to investigate long-term implications of spatial distances produced by initial move-outs. How does local mobility affect parent–child relations compared to long-distance moves? How predictive are spatial distances of initial move-outs for parent–child proximity in middle and later life? To answer these questions, information on initial move-outs should be combined with data on subsequent moves and later parent–child proximity as well as measures of intergenerational support, affection, association, and conflict.

Along with the SOEP, other large-scale panel surveys with genealogical designs such as the Panel Study of Income Dynamics now provide geographical data in sufficient detail to investigate the distance of initial move-outs as well as their long-term outcomes over the family life course. Future research should capitalize on this potential for comparative longitudinal analyses. Until now, only one cross-sectional study exists, showing that the determinants of parent–child proximity are surprisingly similar in Germany and the United States, despite considerable variation in public welfare provision (Lauterbach and Pillemer, 2001).

We began by noting that little was known about the spatial distance of initial move-outs, whereas many studies examined the timing of exits from the parental home. In view of that, it seems like a natural step to incorporate both dimensions into joint decision making models of leaving home.

Acknowledgments

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References


