European Population Conference, Corvinus University of Budapest, June 2014

Understanding the transition from living apart together to a cohabitation – Who moves to establish a co-residential partnership?

Michael Wagner
Institute of Sociology and Social Psychology
University of Cologne
Germany
mwagner@wiso.uni-koeln.de

Clara H. Mulder
Faculty of Spatial Sciences, Population Research Centre
University of Groningen
The Netherlands
c.h.mulder@rug.nl

2014

1 Introduction[1]

Marriage and entry into cohabitation are crucial events in the life course, with important repercussions for fertility, housing demand and well-being. The transition to marriage, and the formation of co-residential unions in general, is therefore an important topic of research among family sociologists and demographers. For a long time, this research has focused almost exclusively on marriage (e.g. Oppenheimer, 1988). More recently, it has become common practice to consider unmarried cohabitation when analyzing union formation (e.g. Jalovaara, 2012; Mulder, Clark & Wagner, 2006; Sassler & Goldscheider, 2004; Thornton, Axinn, & Teachman, 1995; Wiik, 2009; Xie et al., 2003). In a recent study for Norway, Wiik (2011) concentrated on the transition to cohabitation only, arguing that in Norway, marriage has become nonstandard behavior.

In the vast majority of these previous studies, the analysis of the formation of co-residential unions includes all those who have never lived with a partner or who are not currently living with a partner. This implies all those who live without a partner are treated as being 'at risk' of starting a co-residential partnership. This practice ignores the fact that starting to live with someone requires the existence of a dating partner, or non-residential partner, with whom one has some sort of relationship. It reflects the habit of researchers to use what Roseneil (2006) has called a tripartite model of relationships, in which people are single, cohabiting or married, and in which non-residential partnerships, or living-apart-together (LAT) partnerships, are ignored.

Levin (2004) as well as Duncan and Phillips (2010) give an overview of the historical development of LAT relationships as a new type of couple relationships, which are due to changing norms and life circumstances. Often it is suggested that the prevalence of LAT relationships increased over historical time. Asendorpf (2008) found for Germany that the proportion of LAT relationships among all relationship types increased from 8.2% in 1992 to 10.9% in 2006. Asendorpf (2008) also shows that the stability of LAT relationships is low and that the prevalence of these relationships strongly decreases until the mid-thirties and then remains at a low level. There are also some studies describing who is in a LAT

partnership and what motivates people to be in a LAT partnership (Duncan & Phillips, 2011; Régnier-Loilier et al., 2009).

Some studies approach LAT partnerships as a stage in a relationship process: Surra and Hughes (1997) probed into the way in which dating partners become committed to marry, and Lois et al. (2010) focused on the concept of the institutionalization of a partnership. The transition of a LAT relationship to a co-residential partnership forms an important element in this process. Castro-Martín et al. (2008) performed a multinomial logistic regression analysis of current relationship status, in which LAT partnerships formed one category. Lois and Lois (2012) identified the groups with the highest risk of long-lasting LAT partnerships, but only very few studies deal with different types of LAT relationships.

Only a handful of studies specifically focus on the transition to co-residential partnerships among those who can be considered to be truly at risk of that transition: those in a LAT relationship. Sassler (2004) and Huang et al. (2011) look at the motives for moving into a common household. Manning and Smock (2005) asked cohabiters in in-depth interviews to look back at their moving in together and describe the event and process of moving in. Raley et al. (2007) investigated the association between relationships during late adolescence and union formation of young adults. Liefbroer et al. (1994) analyze the factors that influence union formation intentions and behavior among those in a dating partnership. Meggiolaro (2010) performed a multiple-risk event-history analysis of the transition to cohabitation, marriage, or separation for those in dating partnerships, paying specific attention to the role of sexuality.

Another aspect of the formation of co-residential unions that has been ignored in the literature is that it involves the residential relocation of at least one partner. Previous research shows that, on the occasion of marriage, more women than men migrate (Fan/Huang, 1998; Mulder/Wagner, 1993). This suggests that men might be more likely than women to have their partner move in with them. The issue of who moves in with whom is potentially important for two reasons. First, moving in with someone might bear similarity to moving as a tied mover, that is, moving together with a partner for the sake of that partner's career. The family migration literature has shown that such moves tend to have a negative impact on the tied mover's employment (Boyle et al., 2009). Secondly, in the event of a separation, the partner who had his or her partner move in at the start of the partnership has a much better chance of remaining in the house (Mulder/Wagner, 2011).

In this article, we address the issue why people in a living apart together relationship (LAT partners) establish a co-residential union and who moves if such a union is realized. Data stem from the four waves of the German Family Panel pairfam (N = 2.139 people in LAT partnerships in wave 1). Logistic regressions are applied of staying in a LAT relationship, forming a co-residential union, separating and establishing a common household by having the partner move in.

2 Living apart together: Definitions and Typologies

LAT partnerships (or LAT relationships) are usually defined as intimate relationships between unmarried partners who live in separate households but identify themselves as part of a couple. The latter, it has been argued, separates a LAT relationship from a boyfriend or girlfriend relationship (Duncan/Phillips, 2011). LAT relationships are sometimes referred to as non-residential partnerships (Strohm et al., 2009: 178), dating partnerships (Meggiolaro, 2010) or bilocal relationships. The term "living apart together" has been introduced 1978 in an article in the Haagse Post by the Dutch journalist Michel Berkiel (Asendorpf, 2008: 750).

Many scholars have developed typologies of LAT relationships. A criterion that is often used to distinguish LAT relationships is whether partners are more or less forced because of social circumstances to live apart or whether they prefer this kind of arrangement and have deliberately chosen it. For example, Levin (2004) identified two subgroups. While the first group consists of those who would like to live together, but decided not to do so because of responsibility and care for other people (i.e. young children or older parents living in their household) or work and study in different places, the second group prefers living apart together due to negative experiences in (previous) relationships with common households.

Schneider and Ruckdeschel (2003) differentiated work-related LAT-relationships and deliberately chosen LAT relationships. They conclude that work-related LAT relationships often represent a temporary solution for younger people who are still in vocational training and want to establish a common household as soon as possible, whereas deliberately chosen LAT relationships often consist of older people who want to maintain this kind of relationship for personal reasons as long as possible. Likewise, Van der Klis and Mulder (2008) distinguished commuter partnerships from LAT relationships; in commuter partnerships couples regard themselves as living together but one of them lives away for work part of the time. In comparison, Lois (2012) distinguished three main LAT types:

precursor to a co-residential partnership, work-related long-distance relationship, and deliberately chosen living arrangement. By applying cluster analysis she distinguished even six types of LAT relationships.[2]

3 The transition to a co-residential partnership: Theoretical background and hypotheses

In principle, partners living apart together are facing a number of options: they can keep up their non-residential relationship, they can separate, one partner can move to the accommodation of the other or both partners move to a new accommodation. Independently from which option is investigated it is necessary to apply a theory of how partnerships develop to understand the transition from a LAT to other types of relationships or living arrangements. In a qualitative study, Sassler (2004) identified six broad categories why respondents decided to cohabit: finances, convenience, housing situation, because they simply wanted to, response to parents/family, as a trial. In the following, we will derive a number of hypotheses why partners form a co-residential partnership from more general theories.

The constitution of a common household is a central topic to be explained by microeconomic theory. From that perspective, the constitution of a common household is advantageous because partners have the opportunity to combine their resources, to establish a division of labor and to reduce their costs of living. Therefore it can be assumed that partners' economic resources play a role for the decision whether one should move in together or not. Partners with few economic resources are more dependent or in need of a common household with their partner because this would save some money: *The less resources the partners have, the more likely partners constitute a co-residential partnership* (H1). For the same reasons we argue that the higher the costs of maintaining living apart together the more attractive is a co-residential union: *The higher the transaction costs of a LAT partnership, the more likely partners constitute a co-residential partnership* (H2).

---

[2] Lois (2012) ended up with six LAT types: consolidated juvenile partnership (verfestigte Jugendpartnerschaft), nonbinding juvenile partnership (unverbindliche Jugendpartnerschaft), professionally integrated, harmonious LAT (beruflich integrierte, harmonische LAT), long-distance partnership for work-related reasons (berufsbedingte Fernbeziehung), biographically retarded (biografisch Gebremste) and conflict-ridden LAT (konfliktbehaftete LAT).

From the perspective of interdependence theory (Thibaut & Kelley, 1961) it is assumed that partners try to maximize the gains from the interaction with the partner. Partners compare these gains with a comparison or aspiration level and pursue their partnership as long as alternative options do not promise to be more gainful. The factors that drive this process have to be sought in the partnership quality, because an acceptable partnership quality should be a precondition or inducement for intensifying a partnership by constituting a co-residential relationship: *The better the quality of a LAT partnership, the more likely partners constitute a co-residential union* (H3)[3].

A theory to explain the degree of commitment in a partnership was developed by Rusbult (1980). Her investment theory is based on the interdependence theory. The level of commitment of a partnership is explained not only by the level of satisfaction and the perceived quality of alternatives, but also by the extent of investment. The more partners invested into the partnership, the higher the level of commitment. Lois et al. (2010) divided the course of a partnership into a number of partners' decision steps with increasing levels of commitment: emotional commitment (e.g. first sexual intercourse), a common household, an economic community ("Wirtschaftsgemeinschaft"), marriage and the start of a family (Lois et al. 2010). As partnerships develop according to these steps they become more institutionalized. One can hypothesize: *The higher the investments into the LAT relationship, the higher the degree of institutionalization of the relationship, the more likely the partners will constitute a co-residential partnership* (H4).

The institutionalization of partnerships and therefore also the transition from a LAT to a co-residential relation should be dependent on partners' age. Youth partnerships are often non-binding and used to gain experiences. Some might fear to loose their individual independence and autonomy and prefer living at distance from their partner. Moreover, the costs of a separation are higher for co-residential relationships than for non-residential relationships (Rupp & Blossfeld, 2008). As already mentioned, in a life course perspective reasonably stable LAT relationships might be a precursor to a co-residential partnership: The older the individuals, the greater the likelihood that they have completed central biographical

---

[3] If partners in a LAT live far away from each other, the costs of moving and therefore the costs of constituting a common household are relatively high. In such a case one would expect that the external constraints are so powerful that individual characteristics like the quality of a relationship do not play an important role for explaining the transition from LAT to a co-residential relationship. The test of such interaction effects is not possible within the scope of this paper.

passages (for example labor market entry, leaving parental home) and meet the conditions for transition into a cohabitation (for example economic independence). Moreover, social age norms are likely to regulate the course of partnerships. With increasing age the willingness to enter a relationship and as a consequence the intention to establish a common household increases and exceeds the perceived costs of a loss of autonomy (Lois 2012): *The older the respondent, the more likely is a transition from a LAT relationship to a co-residential partnership* (H5).

We conceptualize the process of establishing a co-residential partnership in a way that combines the social development of partnerships, like an increasing commitment or institutionalization (Lois et al. 2010), with its spatial correlates, like residential mobility. Obviously, residential mobility of at least one partner is a necessary requirement for partners of a non-residential union to start living together in a common household. Such residential mobility of one or two partners could reduce the living, housing and transactions costs and therefore accelerate the establishment of a common household. Of course, the costs of moving could also be an obstacle for this development. They can be so high that they do not exceed the returns which result from the new division of labor and the savings which arise out of the merging of two households. We assume that partners living in separate households take these moving costs into account if they intend or decide to live in a common household: *The higher the moving costs, the less likely is the constitution of co-residential relationship* (H6).

The higher the costs of moving for a partner, the less likely this partner will move to constitute a co-residential relationship. As moving costs depend on the amount and intensity of local ties of each partner we further argue that in *case of a co-residential partnership the partner who has less local ties than the other partner is more likely to move than the other partner* (H7). Local ties should also depend on the job situation. Individuals are confronted with high moving costs if residential mobility would result in the loss of a job that guarantees good money. This is another reason why the partner with less resources moves. Moreover, homeownership and household size are related to the intensity of local ties. The sale of one's home might be associated with financial loss. The more household members the more costly is a move because of the loss of social bonds. If children are present partners are confronted with a situation where a co-residential union means to constitute a new family. This, however, is likely to constitute a barrier to start a co-residential partnership.

6

As the common costs of constituting a co-residential partnership are lower if only one partner moves (instead of a move of both partners in a new dwelling), one should expect that it does not happen very often that both partners move. If it is more common that only one partner moves, the question is how socio-structural factors affect the decision which of both partners will move to the other. *We hypothesize that in case of a co-residential relationship the partner who has more resources tends to stay, the partner with less resources tends to move in* (H8). As the housing standard increases with the financial resources, we would expect that it is more likely that the partner with less financial resources moves to the partners' dwelling which is characterized by a better standard. Because we have no data we cannot test the effects of differences of housing quality on the residential mobility of the partners.

4 Data, variables and methods

4.1 Sample

We use data from the German Family Panel pairfam (Panel Analysis of Intimate Relationships and Family Dynamics). Pairfam is a longitudinal study currently carried out with four waves. In wave 1 (September 2008 - May 2009) 12,402 German-speaking men and women of the three age groups 15-17 years, 25-27 years, 35-37 years have been interviewed[4]. Wave 4 took place in 2011/2012 when 6,999 persons from the initial sample have been re-interviewed. For a detailed description of the aims of the study and its methods see Brüderl et al. (2010) and Huinink et al. (2011).

The initial sample consists of 7,234 anchor persons at wave 1 who reported that they are living in a steady relationship. If the respondents live in a steady relationship, but are not living in a common household with their partner and are unmarried to her current partner they are defined as living apart together. To identify persons who were living in a steady relationship, the respondents were asked: "In the following, I'll ask you about intimate relationships. Do you currently have a partner in this sense?" (answering categories were yes/no, don't know, no answer). Respondents with a steady partner were asked whether they live together with her/his partner in the same dwelling.

---

[4] TNS Infratest drew the sample from registration offices (Einwohnermelderegister). The sample was stratified according to the years of birth 1991-93, 1981-83 and 1971-73. As some interviews were realized too late to fall into the appropriate age interval, respondents are members of the birth cohorts 1990-94, 1980-84 and 1970-74.

Our methodological strategy is to follow all LATs at wave 1 as long as possible (which is the time of the fourth wave). The duration of the LAT after wave 1 is the observation period. Covariates are time-constant, measured at wave 1. We distinguish the following status transitions:

- LAT still exists at wave 4; this is the case if the anchor person reports that he/she is still in a relationship with the partner of wave 1, but the partners do not live in a common household,
- LAT relationship at wave 1 was separated,
- LAT partners at wave 1 constituted a co-residential partnership, no move of the respondent (anchor), partner moved in.
- LAT partners at wave 1 constituted a co-residential partnership, move of the respondent only or both partners moved.

From the subsample of 2,139 respondents who reported that they are living in a LAT relationship (not married with the partner and without an earlier co-residential relationship with the current partner) at wave 1, 1,649 respondents have been interviewed at least a second time between wave 2 and 4 (Table 1). Of these, 20 percent (N=334) are living in a stable LAT relationship[5], 52 percent (N=863) separated, and 27 percent (N=452) constituted a co-residential relationship. Of these 452 LAT partners who moved together, 2 percent married before they moved together and 6 percent (N=28) married at the time of moving together.

Table 1: Transition from a LAT to co-residential partnership (all cohorts)

LAT status		Frequencies	Percent
Stable relationship		334	20.25
Separation		863	52.33
Co-residential partnership		452	27.41
Of these:			
Marriage before coresidence	8 (1.8%)		
Marriage and coresidence	28 (6.2%)		
Total		1.649	100.00

Source: pairfam, observation period is from wave 1 to wave 4

---

[5] In N=6 cases (3% of all LAT relationships) the partners married (without a co-residential partnership)

The character of the LAT relationships varies strongly between the birth cohorts or the age groups. Of all LAT relationships 56 percent (N=927) belong to the youngest cohort which corresponds to the age group 15 to 17 years (Table 2). As 70 percent of these relationships where separated and only 11 percent resulted in a co-residential union, these relationships are obviously of a different character compared to relationships of the middle and oldest cohort. Presumably, most of the teenager do not plan to start a co-residential union or a family. It is likely that the meaning of the term "intimate partnership" – that is used in the questionaire – differs between the youngest age group and the two older cohorts. To avoid too much heterogeneity in the sanple of analysis, we will not include the LAT relationships of the youngest cohort. Therefore, our final sample consists of N = 722 LAT relationships.

Table 2: LAT status by birth cohort (all cohorts)

	Birth cohort			All
LAT status	1991-1993	1981-1983	1971-1973	
Stable	172 (18.6%)	105 (19.3%)	57 (32.0%)	334 (20.3%)
Separation	652 (70.3%)	166 (30.5%)	45 (25.3%)	863 (52.3%)
Co-residence	103 (11.1%)	273 (50.2%)	76 (42.7%)	452 (27.4%)
Total (=100.0%)	927	544	178	1.649

Source: pairfam, observation period: wave 1 – wave 4

Table 3 shows that in 47 percent of all transitions to a co-residential partnership the partner moved in, in 53 percent of all transitions the anchor moved to his or her partner or both partners moved to a new accommodation. As the data do not include the residential history of the partners it is not known whether the anchor moved together with his or her partner or not. But when the anchor person did not move when a co-residential relationship has been established it is the partner who moved in.

Table 3: Relocations of the partners in case of a transition to a co-residential partnership (age cohort 25-27 and age cohort 35-37)

Co-residential partnership	Frequencies	Percent
Partner moved in	148	46.98
Anchor moved in or both partners moved together	167	53.02
Total	315	100.00

Source: pairfam, observation period: wave 1 – wave 4

4.2 Variables

In the following we inform about the definition of the variables that are used in the analyses (see also Table 1A in the Appendix for further details).

Absolute and relative resources: Resources were measured for both partners by the level of education and the employment status at wave 1. The level of education was measured according to the ISCED-97 scale as follows: the ISCED-97 categories 0, 1, 2, 3 stand for a low educational level, ISCED-97 categories 4, 5 and 6 for a medium educational level and ISCED-97 categories 7 and 8 denote a high educational level. We also consider the relative resources of the anchor compared to his/her partner. Therefore, we include educational homogamy (educational level of the anchor is higher, equal or lower than his/her partner). The anchor or the partner are defined as employed (=1), if he or she is full or part time employed (employed or self-employed) The employment status is categorized as employed, in education, not employed and not in education.

Transaction costs of the LAT relationship: We measure the transaction costs that derive from maintaining a LAT relationship by the log of the distance between the partners' places of residence. We use the distance which is defined as the normal traveling time between the two places reported by the respondent. The distance was measured in minutes. The minimum is one minute, the maximum 1440 minutes, the mean is 23 minutes. Although the distance might not only capture the transaction costs but also the costs of moving, we assume that the costs of moving are not strongly associated with the pure distance, especially if one controls for the effects of the local ties and the location-specific capital of the partners.

Quality of the LAT relationship: The quality of the relationship was measured by the satisfaction with the current relationship ("How satisfied are you with your current

relationship?"). The range is from 0 (very unsatisfied) to 10 (very satisfied), mean value is 8.5. We further include the number of partner conflicts as an indicator of partnership quality. The number of conflicts was measured as a mean of two variables: How often are the partners angry or annoyed and how often do the partners dispute or have different opinions (1: "never" to 5 "always", mean=2.4). Another indicator is the plan to get married ("Are you and your partner planning to get married within the next 12 months?"). It was coded as 1 if the respondent answered that he/she definitely or perhaps plans to get married, 0 otherwise[6]. Another indicator is the concrete wish for a child. The respondents were asked "Are you planning to have a child within the next two years?". For the present analysis, a dummy variable was generated. The answer "yes, certainly" or "yes, maybe" or in case the anchor or the partner was pregnant was coded as 1, 0 otherwise[7]. ". The category "do not know" covers all the cases, in which the anchor persons were not able to report a realistic number of children or have not thought about that yet or simply do not know.

Institutionalization of the LAT partnership: The institutionalization of a partnership was measured by the following questions: "Has your partner already introduced you to his/her parents and/or have you already introduced your partner to your parents?", "Do you keep things in your partner's dwelling and/or does your partner keep things in your dwelling (e.g. cosmetics, clothes)?", "Since the start of your relationship with your partner, have you ever stayed overnight together at your or at your partner's dwelling?"). If the respondents answered „yes", variables were coded 1, otherwise 0.

Intention to constitute a co-residential partnership: Respondents were asked whether they are planning a co-residential union with their partner within the next 12 months. It was coded as 1 if the respondent answered that he/she definitely or perhaps plans to constitute a co-residential partnership, 0 otherwise.

Birth cohort/Age: As LAT relationships of the birth cohort 1990-1993 are not included in the analysis, we distinguish between birth cohorts 1980-1983 and 1970-1973. At wave 1 the age of the anchor persons was 25 to 27 (age cohort 25-27) or 35 to 37 years (age cohort 35-37).

Gender: The variable men is coded as 1 for male anchor persons (51%), 0 otherwise.

---

[6] If the variable intention to marry is 0, this could mean "no intention", but also "does not apply" (only cohort 1) or "we did not talk about that yet".
[7] The code 0 includes "no, probably not", "no, definitely not", "do not know" and the anchor or partner was not pregnant.

Costs of moving/location-specific capital: The costs of moving are positively related to the amount of location-specific capital. The latter should be captured by three variables: homeownership, household size and the number of children in the household. Homeownership was measured by the question "What is the ownership status of this dwelling?" The variable was coded as 1 if the apartment or house is the property of the anchor person, the partner or joint property of both (homeowner), otherwise 0. Household size is measured by the number of household members. The mean number of children in the household is 0.25 (Table 1A in the Appendix).

Duration of the relationship: We consider the duration of a LAT relationship (in months) from its beginning (possibly before wave 1) until the end of the observation period. The mean duration is 43.8 months (see Table 1A). Although this indicator might capture the degree of institutionalization of the LAT relationship, it is used as a control variable because one has to account for the fact that the LAT relationships typically started before wave 1.

4.3 Methods

We performed a number of tests to identify possible selection processes. We compared the means of all independent variables between two samples: the sample of all LAT relationships and the sample of LAT relationships where the anchor participated at the first and the second wave. We did not find any striking differences except that the proportion of those who said that they are planning to marry is higher in the second sample and that the duration of the LAT relationships is lower.

In the following we estimate bivariate and multiple binomial logistic regression models[8] with the transition to a co-residential union as the dependent variable. This variable is coded as 1 if the LAT relationship changed over to a co-residential partnership between wave 1 and wave 4, 0 otherwise. We further investigate the subsample of realized transitions from LAT to a co-residential partnership to identify those factors that affect whether the partner moves in or not.

To validate the results we will report whether the covariates affect the intention to form a co-residential partnership in the same way as they affect the actual move into a common household. Those LAT relationships that do not end up in a co-residential partnership are a heterogeneous category that includes stable and unstable (separated) LAT relationships. To

---

[8] All models are estimated using Stata, version 13.

clarify the findings, multinomial regression models are estimated with three categories of the outcome variable: realized transition to a co-residential relationship, separation of the LAT relationship and stable LAT relationship. The latter is defined as the base outcome.

5 Results

Transition to a co-residential partnership

Empirical results are presented as follows: Table 4 provides the bivariate effects of the independent variables on the intention to establish a co-residential partnership, on the constitution of a co-residential partnership and on the likelihood that the partner moves in for those who established a co-residence. Results from multiple analyses with the transition to a co-residential partnership as the dependent variable are presented as well (Table 5). These analyses are performed according to the hypotheses: Model 1 includes the control variables, model 2 the resource variables, model 3 the distance as a variable that is assumed to be related to the transaction costs, model 4 includes the variables that capture the quality of the relationship, model 5 stands for the institutionalization effects, model 6 includes the costs of moving and model 7 incorporates all independent variables (full model).

Because of missing values multiple logistic regressions are based on n = 619 LAT relationships which is the number of cases with valid values for all variables of the full model (Table 5). To investigate whether the effect sizes depend on the pattern of missing values, we estimated each model with the maximal number of cases. With one minor exception results did not change.

It is not surprising that anchor's intention to establish a co-residential union is a strong predictor of the likelihood that such a co-residence is realized (Table 4). Therefore, one can expect that a number of independent covariates not only have an impact on the realization of a co-residential union, but also on the intention to do so. The intention to establish a co-residential partnership can hence be considered as a mediator variable.

A first result is that the resources of the partners – both their educational level and their employment status – do not seem to affect the transition to a co-residential partnership. In the multinomial model the partner's resources do not explain the realization of a common

13

household either (Table 2A). Although partner's educational level is related to the intention to form a co-residential partnership, H1 is not supported by the data.

The bivariate logistic model (Table 4) and the multiple logistic regression model (Table 5) reveal that the transaction costs indicated by the distance are only very weakly related to the constitution of a co-residential relationship (see the full model in Table 5). However, the multinomial model shows that as the distance between the partner's dwellings increases the risk of a co-residence decreases – here stable LAT relationships constitute the reference category. In any case, H2 is not confirmed as it was expected that the transition to a common household is more likely if the transaction costs of a LAT relationship increase.

Most of the indicators that are related to the quality of a LAT-partnership are strongly associated with moving together and with the intention to co-reside. There are strong bivariate associations between the satisfaction, conflict level and the wish for a child on the one hand and on the other hand to the transition to a co-residential partnership. The multiple models reveal that these effects are stable even if other covariates are controlled for. The intention to get married is related to the intention to co-residential partnership, not to the realization of a co-residence (Table 5). Results from the multinomial model confirm these findings. Interestingly enough, relationship conflicts significantly increase the separation risk. Although the intention to get married as one of the four indicators for the quality of the relationship is not significantly associated with the constitution of a co-residential partnership, empirical results are in line with hypothesis H3.

We also find that variables indicating the degree of institutionalization of the LAT relationship are significantly related to the transition to a co-residential partnership. Most important is the variable whether the partner has been introduced to the parents of the anchor or not. Whereas it is not decisive whether one partner keeps things in the dwelling of the other partner, the multinomial model reveals that it matters whether the anchor stayed overnight together with his or her partner (Table 5). Surprisingly, this variable positively affects not only the transition to a co-residential union but also the risk of a separation (compared to stable LAT relationships). As two indicators of the degree the relationship is institutionalized are significantly linked to our outcome variable, the empirical findings are largely in line with hypothesis H4.

Members of the age cohort 25-27 are more likely to form a co-residential partnership than members of the age cohort 35-37. This effect is, however, not significant in the bivariate

model (Table 4), but it is significant in some of the binomial regression models in Table 5 and weakly significant in the multinomial model. We also estimated the effect of partner's age on the transition to a co-residential union. It is not significant (ß = -.01, n = 682; no Table). As H5 states a positive effect of partner's age on the transition to a co-residential partnership, this hypothesis is not confirmed.

Moving costs indicated by homeownership, household size or the presence of children in the household of the anchor are not significantly associated with the transition to a co-residential relationship. With the exception of the presence of children that is negatively related to the intention to form a co-residential partnership (Table 4) or the weak effect of household size in the multinomial model, these variables do not predict the transition to a co-residential partnership, H6 is not supported by the findings.

Male anchor persons are almost as likely to form a co-residential partnership as female anchor persons. Bivariate effects are not significant, only some models in Table 5 reveal that the transition to a co-residential partnership is less likely for male anchor persons than for female anchor persons. But these effects are only significant at the 10%-level. However, the longer a LAT relationship exists the less likely is the transition and the intention to constitute a common household.

Table 4: Transition to a co-residential partnership: Bivariate binomial logistic regressions (age cohort 25-27 and age cohort 35-37)

	Co-residence	N	Partner moves in	N	Intention	N
Controls						
Duration	.99***	717	1.01*	313	.99**	707
Men	.84	722	1.11	315	.79	711
Age cohort 25-27	1.35	722	1.16	315	1.32	711
Intention						
Intention co-residence	3.80***	711		310		
Resources						
Educ low (a)	1.22	719	.87	315	.92	708
Educ medium (a)	.76*	719	.94	315	.85	708
Educ high (a)	1.19	719	1.22	315	1.33*	708
Educ low (p)	.80	708	1.38	310	1.16	698
Educ medium (p)	.90	708	1.10	310	.67**	698
Educ high (p)	1.27	708	.78	310	1.43**	698
Educ (a)+(p) equal			.74	310		
Educ (a) higher			1.88**	310		
Educ (a) lower			.86	310		
(a)+(p) employed			.88	311		
(a) employed			1.99**	311		
(p) employed			.75	311		
Transaction costs						
Distance (ln)	.95	708			1.05	698
Quality of union						
Satisfaction	1.22***	712			1.18***	701
Nb. of conflicts	.67***	713			.97	703
Marriage: yes	1.01	717			5.13***	707
Child: yes	1.58***	690			3.76***	680
Institutionalization						
Intro partner	2.44***	721	1.23	315	2.81***	710
Things dwelling	1.10	719	.73	314	1.96***	708
Stayed overnight	1.83*	717	1.33	313	1.13	708
Costs of moving						
Homeowner	.69	704	.87	308	.63	693
Household size	.95	722	.93	315	1.03	711
Nb. of children	.86	722	.95	315	.74**	711

Source: pairfam; (a) anchor; (p) partner; * p<.0.10, **p<0.05, *** p<0.01

Table 5: Transition from LAT to co-residential partnership and the intention to establish a co-residential partnership: Multiple binomial logistic regressions (age cohort 25-27 and age cohort 35-37)

| Variable | Transition from LAT to co-residential partnership | | | | | | | Intention |
	Controls cohort/age	Partner's Resources	Transaction costs	Quality of relationship	Investm./insti-tutionalisation	Costs of moving	Full model	Full model
Duration	0.99***	0.99***	0.99***	0.99***	0.99***	0.99***	0.99***	.99***
Men	0.76*	0.75	0.76*	0.76	0.74*	0.73*	0.75	.73
Age cohort 25-27	1.56**	1.37	1.49**	1.53*	1.39	1.45	1.29	.98
Educ. med. (a)[1]		0.88					0.83	1.00
Educ. high (a)		1.11					1.00	1.16
Educ. med. (p)[2]		1.10					1.10	.87
Educ. high (p)		1.46					1.42	1.19
In education (a)		1.52					1.74	1.29
Employed (a)		1.04					1.07	.92
In education (p)		1.45					1.42	.83
Employed (p)		1.52					1.61*	1.27
Distance			0.94				0.88*	.96
Marriage yes				0.74			0.76	2.79***
Child yes				1.51**			1.60**	3.05***
Satisfaction				1.19***			1.19***	1.16***
Conflict				0.74**			0.72**	1.06

17

Intro partner					2.48***		2.69***	3.06***
Things dwell					0.92		0.86	1.60*
Stayed over night					2.02		1.83	.83
Homeowner						0.86	0.88	.56
Household size						0.95	0.91	.99
Nb. Children						0.90	1.03	.70*
Constant	1.01	0.61	1.26	0.44	0.28**	1.25	0.15**	.12*
N	619	619	619	619	619	619	619	612
Log likelihood	-414.47	-408.61	-413.96	-397.55	-407.96	-413.54	-382.72	-357.24
LR χ^2 (df)	21.90(3)	33.62(11)	22.92(4)	55.76(7)	34.90(6)	23.76(6)	85.41(22)	126.81(22)
Pseudo R^2	0.03	0.04	0.03	0.07	0.04	0.03	0.10	0.15

Source pairfam; 1) a: anchor; 2) p: partner; * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Who moves to whom?

We now switch to the question who moves when partners establish a common household, using the group of LAT relationships that established a co-residential union as a subsample. As mentioned earlier, it is only possible to investigate whether the partner moves to anchor's household or not. The data do not allow to differentiate between a move of both partners to a new dwelling and the move of anchor to the dwelling of the partner.

As the bivariate regressions show it is more likely that the partner moves in if anchor's educational level is higher than partner's educational level or if only anchor is employed, but not his or her partner (Table 4). Table 6 demonstrates that only the employment status has some power to explain whether the partner moves or not. If only the anchor is employed it is more likely that the partner moves in, but this effect is only significant at the 10%-level. There is no impact of anchor's local ties or costs of moving on the likelihood that the partner moves in. It exists only for the household size, not for homeownership and not for the number of children in anchor's household. The more household members the less likely it is that the partner moves in. But this effect is not significant if the distribution of the resources is controlled for.

Table 6: Transition to a co-residence and the partner moves in (n = 300)

Variable	Controls/ Age Cohort	Relative Resources	Costs of moving	Full model
Duration	1.01	1.01	1.01	1.01
Men	1.18	1.06	1.23	1.12
Age cohort 25-27	1.31	1.28	1.50	1.48
Anchor educ higher		1.46		1.45
Only anchor empl.		1.82*		1.77*
Homeownership			.81	.83
Household size			.88	.89
Nb. children			1.18	1.20
Constant	.54*	.47**	.62	.51*
Log likelihood	-205.71	-202.11	-204.39	-201.12
LR χ^2 (df)	3.14(3)	10.33(5)	5.77(6)	12.30(8)
Pseudo R^2	0.01	0.03	0.01	0.03

* $p < 0.10$

6 Discussion

The aim of the paper was twofold. First, we wanted to identify social conditions that affect the likelihood that partners of a LAT relationship move together. Second, we tried to find out which partner moves if a common household is to be constituted.

The results suggest that the main explanatory variables for the transition of LAT partners to a co-residential partnership are linked to the quality and the institutionalization of the relationship. The quality of a relationship and the degree of its institutionalization can be understood with the help of interdependency or social exchange theories. The degree of institutionalization is closely linked to how much the partner invested into their relationship in the past (e.g. introduction of the partner to a third party, accomplishment of common activities and the establishment of an everyday life).

As partner's resources, such as their educational level or their employment status, do not predict whether the partners move together or not, one could assume that the amount of financial means is not an important explanatory factor for this decision. Possibly, the economic barriers to establish a co-residential union are not so high that people have to invest a lot of socioeconomic resources to realize a common household. It might also be that many people in LAT relationships are not in economic need to form a co-residential partnership.

It was hypothesized that the transaction costs indicated by the distance between the partners' dwellings have a positive impact on the transition to co-residential union. The empirical findings suggest that the opposite is more realistic and further investigations are necessary to clarify the role of the distance between partners' dwellings for the relocation decisions. An important point for a better understanding of the distance effects should be whether the partner lived together in the past and are spatially separated for a certain period of time or whether they never lived with their partner because they prefer a LAT relationship against a co-residential partnership.

Differences between the cohorts or anchor's or partner's age do not significantly predict whether partners move together. On the one hand, this could be an indication that LAT relationships of people in their twenties and thirties are quite similar. On the other hand, one has to bear in mind that the variable age cohort captures a lot of biographical information

which has to be measured more directly to clarify the character of LAT relationships in different phases of the life course.

The empirical findings have been validated in several ways. We applied bivariate and multiple binomial logistic regression models and we supplemented these analyses by a multiple multinomial logistic regression model. Furthermore, not only the actual transition to a co-residential relationship was examined but also the intention to do so.

The explanation of who moves to whom remains rather incomplete. It was expected that the relative resources predict whether the partner moves in or not. Empirical results confirm this hypothesis only partly. Also anchor's moving costs do not seem to be powerful explanatory factor. Presumably, it is necessary to consider for whom of both partners the moving costs are lowest and who of both partners enjoys the highest housing standard.

There are several limitations of the analyses. First, measures of each partner's housing costs and housing quality, of features of the housing market and of partner's residential moves were not available. These should have an impact not only on the decision to move together, but also on couple's decision who moves to whom. Second, even though the observation period of the LAT relationships is rather short with a maximum of four years, further insights could be gained by the construction of time-dependent covariates. Especially the employment status of members of the younger cohort might vary during the observation period. Finally, the analyses should benefit from an application of a typology of LAT relationships. The identification of work-related ("forced") long-distance LAT relationships and of deliberately chosen relationships should be promising in particular.

Appendix

Table 1A: Descriptives (n = 722)

	Mean	SD	Min	Max	Skewness	N	Missings N	%
Duration (months)	43.75	35.67	0.00	242.00	1.29	717	5	0.69
Men	0.51	0.50	0.00	1.00	-0.04	722	0	0.00
Cohort 27-25	0.75	0.43	0.00	1.00	-1.18	722	0	0.00
Cohort 35-37	0.25	0.43	0.00	1.00	1.18	722	0	0.00
Educ. med. (anchor)	0.50	0.50	0.00	1.00	0.00	719	3	0.42
Educ. high (anchor)	0.27	0.44	0.00	1.00	1.04	719	3	0.42
Educ. med. (partner)	0.62	0.48	0.00	1.00	-0.51	708	14	1.94
Educ. high (partner)	0.27	0.44	0.00	1.00	1.05	708	14	1.94
In education (anchor)	0.23	0.42	0.00	1.00	1.28	722	0	0.00
Employed (anchor)	0.64	0.48	0.00	1.00	-0.58	722	0	0.00
In education (partner)	0.28	0.45	0.00	1.00	0.97	712	10	1.39
Employed (partner)	0.59	0.49	0.00	1.00	-0.37	712	10	1.39
Marriage yes	0.15	0.35	0.00	1.00	2.00	715	7	0.97
Child yes	0.34	0.47	0.00	1.00	0.68	690	32	4.43
Intention coresidence	0.54	0.50	0.00	1.00	-0.15	711	11	1.52
Satisfaction	8.20	2.11	0.00	10.00	-2.01	712	10	1.39
Conflict	2.44	0.74	1.00	5.00	0.31	713	9	1.25
Intro partner	0.90	0.30	0.00	1.00	-2.62	721	1	0.14
Things dwelling	0.78	0.41	0.00	1.00	-1.36	719	3	0.42
Stayed overnight	0.93	0.25	0.00	1.00	-3.42	717	5	0.69
Distance (ln)	3.13	1.32	0.00	7.27	0.27	708	14	1.94
Homeowner	0.06	0.24	0.00	1.00	3.57	704	18	2.49
Household size	2.48	1.45	1.00	10.00	0.73	722	0	0.00
Nb. children	0.25	0.63	0.00	4.00	2.74	722	0	0.00

Table 2A: Transition to a co-residential partnership: Multinomial logistic regression
(n = 619)

	RRR	Std. Err.	Z	P > |z|
Stable LAT		Base outcome		
Coresidence				
Duration	.97	.00	-7.62	0.000
Men	.63	.16	-1.78	0.075
Cohort 25-27	1.76	.56	1.78	0.076
Educ. med. (a)	.70	.24	-1.04	0.299
Educ. high (a)	.72	.28	-0.85	0.398
Educ. med. (p)	1.71	.68	1.35	0.177
Educ. high (p)	2.32	1.06	1.85	0.065
In education (a)	1.44	.68	0.77	0.442
Employed (a)	.86	.34	-0.38	0.701
In education (p)	1.27	.56	0.55	0.583
Employed (p)	1.34	.51	0.76	0.446
Distance	.80	0.72	-2.51	0.012
Marriage yes	.55	.18	-1.83	0.067
Child yes	1.55	.40	1.70	0.088
Satisfaction	1.17	.07	2.62	0.009
Conflict	.89	.15	-0.71	0.477
Intro partner	2.94	1.21	2.61	0.009
Things dwelling	.72	.22	-1.09	0.275
Stayed overnight	3.64	1.92	2.44	0.015
Homeowner	1.03	.50	0.06	0.952
Household size	.87	.73	-1.67	0.095
Nb. children	.93	.21	-0.35	0.729
Const.	.56	.66	-.50	0.620

Table 2A: continued

	RRR	Std. Err.	z	P > |z|
Stable LAT		Base outcome		
Separation				
Duration	.96	.00	-8.39	0.000
Men	.80	.23	1.59	0.113
Cohort 25-27	1.75	.62	1.59	0.113
Educ. med. (a)	.75	.29	-0.76	0.448
Educ. high (a)	.59	.25	-1.23	0.217
Educ. med. (p)	2.53	1.12	2.10	0.035
Educ. high (p)	2.69	1.38	1.93	0.054
In education (a)	0.73	.37	-0.62	0.533
Employed (a)	.67	.29	-0.93	0.354
In education (p)	.84	.39	-0.37	0.712
Employed (p)	.73	.29	-0.78	0.434
Distance	.85	.08	-1.64	0.100
Marriage yes	.48	.19	-1.85	0.065
Child yes	0.94	.27	-0.22	0.825
Satisfaction	.96	.05	-0.71	0.475
Conflict	1.45	.26	2.08	0.038
Intro partner	1.21	0.48	0.47	0.640
Things dwelling	.71	.23	-1.04	0.298
Stayed overnight	3.92	2.29	2.34	0.019
Homeowner	1.23	.66	0.40	0.692
Household size	.93	.09	-0.76	0.448
Nb. children	.85	.21	-0.67	0.572
Constant	1.99	2.41	0.57	0.572
Log likelihood		-553.39		
LR χ^2 (df)		218.73(44)		
Pseudo R^2		0.165		

References

Asendorpf, Jens B., 2008: Living Apart Together: Alters- und Kohortenabhängigkeit einer heterogenen Lebensform. Kölner Zeitschrift für Soziologie und Sozialpsychologie 60, 4, 749-764.

Boyle, Paul, Zhiqiang Feng and Vernon Gayle, 2009: A new look at family migration and women's employment status. Journal of Marriage and Family 71, 2, 417-431. doi:10.1111/j.1741-3737.2009.00608.x

Brüderl, Josef, Laura Castiglioni, Ulrich Krieger, Volker Ludwig, Klaus Pforr and Nina Schumann, 2010: Pairfam Data Manual. Technical Report Mannheim Centre for European Social Research.

Castro-Martín, Teresa, Marta Domínguez-Folgueras and Teresa Martín-García, 2008: No truly partnerless: Non-residential partnerships and retreat from marriage in Spain. Demographic Research 18, 16, 443-468.

Dorbritz, Jürgen, 2009: Bilokale Paarbeziehungen - die Bedeutung und Vielfalt einer Lebensform. Zeitschrift für Bevölkerungswissenschaft 34, 1-2, 31-56.

Dorbritz, Jürgen and Robert Naderi, 2012: Stability of Bilocal Relationships - Conditions and Development Paths. Comparative Population Studies - Zeitschrift für Bevölkerungswissenschaft 37, 3-4, 429-462.

Duncan, Simon and Miranda Philips, 2010: People who live apart together – How different are they? The Sociological Review 58, 112-134.

Duncan, Simon and Miranda Phillips, 2011: People who live apart together (LATs): new family form or just a stage? International Review of Sociology 21, 3, 513-532.

Fan, Cindy C. and Youquin Huang, 1998: Waves of Rural Brides: Female Marriage Migration in China. Annals of the Association of American Geographers 88, 2, 227-251.

Huang, Penelope M., Pamela J. Smock, Wendy D. Manning and Cara A. Bergstrom-Lynch, 2011: He Says, She Says: Gender and Cohabitation. Journal of Family Issues 32, 7, 876-905.

Huinink, Johannes, Josef Brüderl, Bernhard Nauck, Sabine Walper, Laura Castiglioni and Michael Feldhaus, 2011: Panel Analysis of Intimate Relationships and Family Dynamics (pairfam): Conceptual framework and design. Zeitschrift für Familienforschung 23, 1, 77-101.

Jalovaara, Marika, 2012: Socio-economic resources and first-union formation in Finland, cohorts born 1969-81. Population Studies 66, 1, 69-85.

Levin, Irene, 2004: Living Apart Together: A New Family Form. Current Sociology 52, 2, 223-240.

Liefbroer, Aart C., Liesbeth Gerritsen and Jenny De Jong Gierveld, 1994: The Influence of Intentions and Life Course Factors on Union Formation Behavior of Young Adults. Journal of Marriage and the Family 56, February, 193-203.

Lois, Daniel, Christina Kunz and Johannes Kopp, 2010: "Verliebt, verlobt, verheiratet." Institutionalisierungsprozesse in Liebesbeziehungen junger Erwachsener und Jugendlicher, In: Sabine Walper and Eva-Verena Wendt (eds.): Partnerschaften und die Beziehungen zu Eltern und Kindern. Befunde zur Beziehungs- und Familienentwicklung in Deutschland, Würzburg: Ergon, S. 55-84.

Lois, Nadia, 2012: "Living apart together": Sechs Typen einer heterogenen Lebensform. Zeitschrift für Familienforschung 24, 3, 247-268.

Lois, Daniel and Nadia Lois, 2012: "Living apart together" – eine dauerhafte Alternative? Soziale Welt 63, 117-140.

Manning, Wendy D. and Pamela J. Smock, 2005: Measuring and Modeling Cohabitation: New Perspectives from Qualitative Data. Journal of Marriage and Family 67, 4, 989-1002.

Meggiolaro, Silvia, 2010: The importance of sexuality in the outcomes of a dating partnership among young adults. Advances in Life Course Research 15, 41-52.

Mulder, Clara H., William A. V. Clark and Michael Wagner, 2006: Resources, Living Arrangements and First Union Formation in the United States, the Netherlands and West Germany. European Journal of Population, 22, 3-35.

Mulder, Clara H. and Michael Wagner, 1993: Migration and Marriage in the Life Course: A Method for Studying Synchronized Events. European Journal of Population 9, 1, 55-76.

Mulder, Clara H. and Michael Wagner, 2010: Union Dissolution and Mobility: Who Moves From the Family Home After Separation? Journal of Marriage and Family 72, 5, 1263-1273.

Mulder, Clara H. and Michael Wagner, 2011: Moving after separation: The role of location-specific capital. Housing Studies 27, 6, 839-852.

Noyon, Alexander and Tanja Kock, 2006: Living apart together: Ein Vergleich getrennt wohnender Paare mit klassischen Partnerschaften. Zeitschrift für Familienforschung 18, 1, 27-45.

Oppenheimer, Valerie K., 1988: A Theory of Marriage Timing. American Journal of Sociology 91, 3, 563-591.

Pairfam 2011: http://www.pairfam.de [05.12.2011]

Raley, R. Kelly, Sarah Crissey and Chandra Muller, 2007: Of Sex and Romance: Late Adolescent Relationships and Young Adult Union Formation. Journal of Marriage and Family 69, December, 1210-1226.

Régnier-Loilier, Arnaud, Eva Beaujouan and Catherine Villeneuve-Gokalp, 2009: Neither single, nor in a couple: A study of living apart together in France. Demographic Research 21, 4, 75-107.

Roseneil, Sasha, 2006: On not living with a partner: Unpicking Coupledom and Cohabitation. Sociological Research Online.

Rupp, Marina and Hans-Peter Blossfeld, 2008: Familiale Übergänge, In: Norbert F. Schneider (eds.): Lehrbuch Moderne Familiensoziologie, Opladen: Barbara Budrich, S. 139-166.

Rusbult, Caryl E., 1980: Commitment and Satisfaction in Romantic Associations: A Test of the Investment Model. Journal of Experimental Social Psychology 16, 172-186.

Sassler, Sharon, 2004: The Process of Entering into Cohabiting Unions. Journal of Marriage and Family 66, May, 491-505.

Sassler, Sharon and Frances Goldscheider, 2004: Revisiting Jane Austen's Theory of Marriage Timing: Changes in Union Formation among American Men in the Late 20th Century. Journal of Family Issues 25, 2, 139-166.

Schneider, Norbert and Kerstin Ruckdeschel, 2003: Partnerschaften mit zwei Haushalten: Eine moderne Lebensform zwischen Partnerschaftsideal und beruflichen Erfordernissen, In: Walter Bien and Jan H. Marbach (eds.): Partnerschaft und Familiengründung. Ergebnisse der dritten Welle des Familien-Survey, Opladen: Leske + Budrich, S. 245-258.

Strohm, Charles Q., Judith A. Seltzer, Susan D. Cochran and Vickie M. Mays, 2009: "Living Apart Together" relationships in the United States. Demographic Research 21, 7, 177-214.

Surra, Catherine A. and Debra K. Hughes, 1997: Commitment Processes in Accounts of the Development of Premarital Relationships. Journal of Marriage and Family 59, 1, 5-21.

Thibaut, John W. and Harold H. Kelley, 1961: The Social Psychology of Groups. New York: Wiley.

Thornton, Arland, William G. Axinn and Jay D. Teachman, 1995: The Influence of School Enrollment and Accumulation on Cohabitation and Marriage in Early Adulthood. American Sociological Review 60, 5, 762-774.

Van der Klis, Marjolijn and Clara H. Mulder, 2008. Beyond the trailing spouse: The commuter partnership as an alternative to family migration. Journal of Housing and the Built Environment, 23(1), 1-19.

Wiik, Kenneth A., 2009: 'You'd Better Wait!'- Socioeconomic Background and Timing of First Marriage versus First Cohabitation. European Sociological Review 25, 2, 139-153.

Wiik, Kenneth A., 2011: Socioeconomic differentials in the transition to first cohabitation in Norway. International Review of Sociology 21, 3, 533-548.

Xie, Yu, James M. Raymo, Kimberly Goyette and Arland Thornton, 2003: Economic Potential and Entry into Marriage and Cohabitation. Demography 40, 2, 351-367.