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Marriage and separation risks among German cohabiters:

Differences between types of cohabiter

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Running title:

Marriage and separation among cohabiters

We propose a typology of different meanings of cohabitation that combines cohabiters' intentions to marry with a general attitude toward marriage, using competing-risk analyses to examine whether some cohabiters are more prone than others to marry or to separate. Using data (N= 1,258) from four waves of the German family panel (PAIRFAM) and a supplementary study (DEMODIFF), we compared eastern and western German cohabiters of the birth cohorts 1971–73 and 1981-83. Western Germans more frequently view cohabitation as a step in the marriage process, whereas eastern Germans more often cohabit as an alternative to marriage. Taking into account marital attitudes reveals that cohabiters without marriage plans differ from those with plans in their relationship careers, and also shows that cohabiters who plan to marry despite holding a less favourable view of marriage are less likely to realize their plans than cohabiters whose intentions and attitudes are more congruent.

Keywords: consensual unions; marriage; separation; longitudinal studies; event history analysis; Germany; cross-cultural comparisons; family demography

Over recent decades, the number of unions that start as unmarried cohabitation has been growing, and cohabitation has increasingly taken over functions that were traditionally reserved for marriage, most notably the function of childbearing (Kiernan 2001; Raley 2001; Wu et al. 2001; Sobotka and Toulemon 2008). This trend has fuelled debate among social scientists on whether cohabitation should be understood as a stage in the marriage process or as an alternative to marriage. The view on cohabitation as a life stage preceding marriage is supported by previous research based on US data that found that most cohabiters intend to marry (Bumpass et al. 1991; Guzzo 2009) and do so within a limited period of time (Brown 2003). Even in the Scandinavian countries, where virtually all unions start as unmarried cohabitation, marriage has remained an important goal in the lives of many people and is postponed rather than forgone altogether (Moors and Bernhardt 2009; Noack et al. 2013). Others have argued that cohabitation increasingly serves as an alternative to marriage insofar as it has come to include parenthood (Smock 2000). Both in the US and Europe the importance of marriage as a precondition to having children has decreased (Kiernan 2001; Heuveline and Timberlake 2004; Perelli-Harris et al. 2012).

Previous research distinguished between cohabiters with and without marital intentions in order to understand the role of cohabitation in the processes of union formation (Manning and Smock 2002; Guzzo 2009; Wiik et al. 2010). Other typologies classified cohabiters by observable behaviours, such as union duration (Bianchi and Casper 2000), the route of exit from cohabitation (Kiernan 2001, and the duration of children's experience of their parents' cohabitation (Heuveline and Timberlake 2004). Here we report a study which expanded on the existing literature by using a typology that combined cohabiters' intention to marry with their

attitude towards marriage. From this we derived a parsimonious set of ideal types of cohabitation and assessed how types of cohabiter differed in their subsequent marriage and separation risks.

How cohabiters themselves view their union, how stable cohabitation is, and how prone cohabiters are to marry may depend on the social and cultural context of cohabitation. When cohabitation is not widespread and constitutes a deviant behaviour, it is often characterized by relatively high levels of religiosity and moral conservatism (Gault-Sherman and Draper 2012) and, consequently, substantial selection into cohabitation and strong societal pressure to get married (Lehrer 2004). But when cohabitation is widespread, it is more likely to be seen as normal to start a union by unmarried cohabitation. Social acceptance of long-term cohabitation may also be higher (Liefbroer and Billari 2010).

Germany presents an interesting case for the study of contextual variation in the meaning of cohabitation and its association with relationship transitions. Despite aligned institutional and political conditions in eastern and western Germany since the reunification in 1990, the two regions of the country have continued to differ in their patterns of relationship and family behaviour. Our study examined differences in the prevalence of specific types of cohabitation in eastern and western Germany and investigated whether these types were differently associated with transitions to marriage and separation. We used data from the German Family Panel (PAIRFAM) and the supplementary study ‘Demographic differences in the life course dynamics in Eastern and Western Germany’ (DEMODIFF). The data allowed us to follow eastern and western German cohabiting men and women born between 1971 and 1973 and between 1981 and 1983 over a period of up to four years. We constructed a typology of cohabitation and assessed its association with marriage and separation by means of competing risk analysis, controlling for other relevant demographic and socio-economic characteristics of the cohabiting population.

The study contributes to the literature on cohabitation in two ways. First, because we combined marital intention and attitude in order to classify cohabiters into different types of cohabitation, we are able to show that there is substantial heterogeneity in the cohabiting population in Germany as well as important differences between the eastern and western part of the country. Second, because we used a prospective approach and longitudinal survey data, we are able to provide valuable insights into how the meanings that cohabiters attach to their relationships (as indicated by their responses to the measures of marital intentions and attitude) shape their relationship careers. Ultimately, this study increases our understanding of the role of cohabitation in processes of union formation and dissolution.

Background

The meaning of cohabitation

Two views on cohabitation are prominent in the literature: (i) cohabitation is a stage in the marriage process, and (ii) cohabitation is an alternative to marriage. According to the first perspective, cohabitation constitutes an intermediate step on the way to marriage, which remains a highly valued institution. Cohabitation may be a stage in the marriage process for three different reasons. First, cohabitation may be a form of engagement or the last phase of courtship, and thus be viewed as a *prelude to marriage* (Brown and Booth 1996; Bianchi and Casper 2000). Second, cohabiters—although positive about the idea of marriage in general—may feel that they are *not ready yet to marry*. Some cohabiters may want to test their relationship first and find out whether the dating partner is a suitable potential spouse (Bumpass and Sweet 1989; Klijzing 1992; Seltzer 2004). Cohabitation has been claimed to be particularly suited as a testing ground for marriage because it offers all the advantages of co-residence but does not entail an obligation to marry, and because it is relatively easy to terminate a cohabiting relationship if it proves

unsatisfactory (Clarkberg et al. 1995). Other cohabiters have been found to postpone marriage because their financial situation prevents them from getting married (Kravdal 1999; Gibson-Davis et al. 2005; Baizán and Martín-García 2006; Gibson-Davis 2009; Kalmijn 2011). One financial reason identified as a reason for not marrying is the costs associated with a wedding (Kravdal 1997; Manning and Smock 2002). Other factors perceived by cohabiters as incompatible with marriage include enrolment in education and the absence of job security (Oppenheimer 1988; Clarkberg 1999; Oppenheimer 2003).

A third reason why cohabitation may be seen as a stage in the marriage process is that cohabiters may intend to marry despite not being particularly positive about marriage in general (Hiekel et al. 2014). They may simply be conforming to the pressure of social norms, as proposed by institutional theories to explain the persistence and continued popularity of marriage in contemporary societies (Cherlin 2004). Cohabiters in this category plan to marry in order to please their partner, family, friends, or society in general or may be pragmatic and intend to marry for practical reasons (e.g. taxation laws, child custody laws, etc.). We previously called this cohabitation type *conformists* and found cohabiters in this group to behave very similarly to cohabiters viewing cohabitation as a prelude to marriage, for instance in their fertility intentions (Hiekel and Castro-Martín 2014; Hiekel et al. 2014).

The view of cohabitation as an alternative to marriage implies that cohabitation takes over the role and function of the institution of marriage. Instead of a step on the way to marriage, cohabitation is regarded as an ‘end in itself’. Two main reasons have been proposed in the literature. First, cohabiters may reject marriage as a cultural ideal. They may view the advocacy of marriage as an unwarranted interference by the church or the state in private life or feel otherwise *ideologically opposed to the institution of marriage*. Cohabiters in this group have

been found to view marriage as a bourgeois or outdated institution (Brown and Booth 1996; Manting 1996).

Second, cohabiters may not want to marry because they consider *marriage as irrelevant*. This view implies not rejection of the institution of marriage, but indifference towards it (Kiernan 2001; Heuveline and Timberlake 2004). Cohabitors in this group are not ideologically opposed to marriage but do not perceive any added value in formalizing their relationship. They believe that a formal marriage certificate is ‘a piece of paper’ that would not make any difference in their commitment towards their partner.

In sum, it is possible to identify five different meanings attributed to cohabitation in the existing literature: prelude to marriage, not ready yet to marry, conforming to the marriage norm, rejection of marriage, irrelevance of marriage.

The meanings of cohabitation and their association with relationship transitions

From these theoretical considerations, we formulated hypotheses about the relationship between different types of cohabiter and their propensity to marry or separate. We ranked the types of cohabitation hierarchically, first, from the type with the highest to the one with the lowest expected likelihood of marrying, and second from the type with the highest to the one with the lowest likelihood of separating.

The transition to marriage. Cohabitors who view their union as a prelude to marriage are already contemplating marriage and are thus most likely to marry. Conformists also envision marriage, but are intrinsically less motivated about it and may therefore be less likely to marry. Cohabitors who are testing their relationship are expected to be less likely to marry than the previous cohabitation types because their relationship commitment may be lower (Jamieson et al. 2002;

Stanley et al. 2004; Wiik et al. 2009; Rhoades et al. 2012). Others may delay marriage because they prioritize graduation, consolidation of their place in the labour market, or the acquisition of material prosperity. Cohabitors who reject marriage are expected to be unlikely to marry, as this would contradict their expressed attitude and intention towards marriage. This may also apply to those cohabiters who consider marriage irrelevant, but it is, however, interesting to explore differences between these groups because cohabiters who consider marriage irrelevant are less driven by ideological opposition to marriage than cohabiters who reject marriage. In sum, we expected cohabiters who viewed their union as a prelude to marriage to have the highest risk of marriage, followed by conformists and cohabiters who did not feel ready yet to marry; we expected cohabiters who rejected marriage or considered it irrelevant to marry to have the lowest risk of marriage. This ordering was our *Hypothesis 1*.

The transition to separation. Among cohabiters in the process of testing their relationship, ‘bad matches’, or fragile unions, might be overrepresented (Klijzing 1992). Furthermore, qualitative research has shown that economic hardship puts a lot of stresses and demands on couples, which reduces union stability (Smock et al. 2005). Cohabitors who feel not ready to marry may therefore be more likely than any other type of cohabiter to dissolve their union. Cohabitors who reject the institution of marriage might also refuse a bourgeois lifestyle in general, such as a lifelong intimate relationship with one and the same partner. Therefore they might have—although to a lesser extent than the previous group—higher risks of separating than cohabiters who are contemplating marriage. The same might be true for cohabiters who consider marriage irrelevant. Cohabitors who view their union as a prelude to marriage or who are classified as conformist may be least likely to separate, because they may already consider exiting their union as costly. In sum, we expected cohabiters who were not yet ready to marry to have the highest

risk of separation, followed by cohabiters who rejected marriage or considered it irrelevant to marry, whereas cohabiters viewing their union as a prelude to marriage or who were classified as conformists were expected to have the lowest risk of separation. This ordering was our *Hypothesis 2*.

Differences between eastern and western Germany

We supposed that the social and cultural context in eastern and western Germany might differ with regard to how cohabiters attach meaning to their union and how this meaning is related to the transition to marriage or separation. Any such differences might to some extent reflect differences in the history of unmarried cohabitation between the two parts of Germany. Unmarried cohabitation was illegal in former West Germany—the Federal Republic of Germany (FRG)—until 1973 and very marginally practised. In contrast, in former East Germany—the German Democratic Republic (GDR)—certain family policies even encouraged couples to postpone marriage until at least after the first child was born. These policies privileged unmarried mothers by permitting a one-year paid maternity leave for their first child (for married women, it was granted for the second child only) as well as preferential treatment in the allocation of day-care places (Kreyenfeld et al. 2011a). Still today, cohabitation is more diffused and socially accepted in eastern than in western Germany (Kiernan 2001; Heuveline and Timberlake 2004). This is particularly apparent when studying the stability of cohabiting unions during the childbearing process. Childbearing within cohabitation is more prevalent among eastern than western Germans (Huinink et al. 2012). Analysing a cohort of women born between 1971 and 1973, Perelli-Harris and colleagues (2012) showed that eastern German women were not only more likely to conceive within cohabitation than western German women (70 per cent vs. 45 per cent), but also more likely to cohabit with the child's father when the child was born

(57 per cent vs. 28 per cent) and when the child was three years old (40 per cent vs. 23 per cent).

While cohabiting unions in eastern Germany in general are more stable than in western Germany, cohabiting mothers more frequently dissolve their union (34 per cent) than do their western German counterparts (27 per cent) (Bastin et al. 2012).

We supposed that the attitudes to marriage and cohabitation of our study population might have been affected by what they learnt from previous generations. Eastern German cohabiters might have learnt that cohabitation can take over a lot of functions traditionally reserved for marriage, and that the state could use the institution of marriage to interfere in private lives. In consequence they might be more likely than western German cohabiters to view their union as an alternative to marriage, either because they reject that institution or consider it irrelevant to their lives. Western German cohabiters, in contrast, might be more like than eastern Germans to enter cohabitation with the idea that as a form of union it is inferior to marriage. In consequence they might be more likely to view cohabitation either as a prelude to marriage, and thus be more likely to marry, or as a testing ground, and thus be more likely to separate. Moreover, western German cohabiters might experience more social pressure to proceed to marriage, regardless of how important they think marriage is, which might make them more likely to conform to the norm of marriage. Therefore our first hypothesis on East-West differences was: Cohabiters in eastern Germany are more likely than their counterparts in western Germany to view their union as an alternative to marriage, whereas western German cohabiters are more likely to view their union as a stage in the marriage process (*Hypothesis 3a*).

In addition, differences could exist in the strength of the associations between the meanings of cohabitation and relationship transitions in eastern and western Germany. In western Germany there is a strong normative preference for marriage. Cohabiters might thus

experience more pressure to marry irrespective of the meaning they attach to cohabitation. This might be particularly true for those cohabiters who view their union as an alternative to marriage. Recent qualitative research shows that cohabitation is socially more disapproved of as a long-term substitute for marriage in western Germany than in eastern Germany, particularly if the couple envision having children (Klärner 2012). We could thus imagine first, finding smaller differences in the associations between the various cohabitation types and the transition to marriage and second, finding the least marriage-prone types of cohabitation to be more likely to marry in western than in eastern Germany. When cohabitation is largely viewed as a form of union inferior to marriage, as it is in western Germany, cohabiters do not have the support of social norms that stabilize their union. Hence, cohabiting unions might also be more fragile. This might particularly apply when cohabitation constitutes an alternative to marriage, because these types of cohabitation differ most strongly from the predominant view on cohabitation in the Western German society. Our second hypothesis on East-West differences was therefore: Compared to eastern German cohabiters, the various meanings of cohabitation for western German cohabiters are more similar to the most marriage-prone type of cohabitation, i.e., the prelude-to-marriage type, in their association with the transition to marriage, and more similar to the most separation-prone type of cohabitation, i.e. the trial-marriage type, in their association with the transition to separation (*Hypothesis 3b*).

Data, sample and methods

Study design and sample

We used survey data from four waves of the German Family Panel ‘Panel analysis of intimate relationships and family dynamics’ (PAIRFAM) (Nauck et al. 2012). PAIRFAM, conducted

annually, is a national sample of the population in Germany (eastern and western Germany) that is representative of the members of three birth cohorts: 1971-73, 1981-83, and 1991-93 (Huinink et al. 2011). The first wave was conducted in 2008/09 with 12,402 respondents of whom 9,069 were re-interviewed in 2009/10, 7,901 in 2010/11 and 6,999 in 2011/12. We additionally used data from the study 'Demographic differences in life course dynamics in Eastern and Western Germany' (DEMODIFF), which is a supplementary study to PAIRFAM and utilizes a largely identical set of instruments (Kreyenfeld et al. 2011b). The first wave of DEMODIFF was launched one year after the first wave of PAIRFAM and adds 1,489 respondents living in former East Germany to the two oldest PAIRFAM cohorts. Of these two cohorts, 1,173 respondents were re-interviewed in Wave 2/3 (2010/11) and 1,074 in Wave 4 (2012). The overall response rate of 37 per cent in the first wave of PAIRFAM and 29 per cent of DEMODIFF is low but it is not very selective. Alternative surveys also have low response rates, and do not include the rich data needed to perform the planned analysis. The relatively minor systematic non-response can be adjusted if appropriate weights are used. We elaborate on these issues below.

Comparable response rates have been observed in other German surveys in the social sciences (Appendix 1) and have been said to reflect a decreasing willingness of the population to participate in such surveys as well as concerns about the protection of data privacy. Data validation against the German microcensus 2009 revealed that PAIRFAM data largely represent the distributions found in the microcensus with regard to sex, marital status, and size of community (Arránz Becker et al. 2013, p. 22). In some federal states the distribution of men in PAIRFAM deviated from the microcensus, and in big cities respondents in partnerships had a relatively high participation rate in the survey. These deviations were strongest for the youngest PAIRFAM cohort (born 1991-93). Our analytical sample consisted, however, of the two older

birth cohorts, because there were virtually no cohabiters among respondents in the age groups 15 to 17 years. Owing to the cohort design of the study, we were not able to study cohabiters in the younger age groups (18 to 27 years) that are more likely to separate.

Additionally, we examined whether the panel attrition was selective on our main independent variable, the cohabitation typology. From these analyses, we concluded that panel attrition was not selective on any of the cohabitation types. There was no single type of cohabitation that exhibited a higher (or lower) probability of dropping out of the panel before a relationship transition could be observed.

To correct for the relatively minor systematic non-response in Wave 1 reported above and the fact that a stratified sample was drawn, a weight that corrects for both design and post-stratification disproportionalities was constructed. Following the recommendations in the PAIRFAM Data Manual (Brüderl et al. 2014), we used a standardized cross-sectional weight that combines the information of the design weight (based on official population counts) and the post-stratification weight (based on microcensus data from 2009).

For this study, we included women and men born between 1971 and 1973 and between 1981 and 1983, who—at the time of the first interview—lived with an opposite-sex partner to whom they were not married and whom we observed for at least two data collections. Our total analytical sample comprised 1,258 individuals, of whom 583 lived in eastern Germany and 675 in western Germany.

Measures

Core variables of meaning of cohabitation. Building on previous work (Hiekel et al. 2014), our main independent variable was a typology, constructed by using two indicators, namely (i)

intention to marry and (ii) attitude towards marriage measured at the first interview. Previous research has stressed the importance of marital intentions to understand differences in cohabiters' relationship careers (Manning and Smock 2002; Guzzo 2009; Wiik et al. 2010). Other studies have emphasized the importance of marital attitudes in cohabiters' relationship trajectories, independently of marriage plans, relationship satisfaction, and socio-economic background variables (Bumpass 2002; Moors and Bernhardt 2009). We believe that it is the combination of these two indicators that permitted us to distinguish types of cohabitation that differ in subsequent relationship trajectories. Combining marital intention with marital attitude helped us make further distinctions among cohabiters without clear marital intentions. As Coast (2009) noted, a cohabiter who does not report short-term intentions to marry might have a variety of reasons for not intending to marry, such as not yet being ready to marry, ideologically rejecting the institution of marriage, or simply not considering marriage relevant though not opposing marriage itself. In addition, combining the two empirical indicators enabled us to explore whether those who intended to marry despite less favourable attitudes towards marriage behaved differently from cohabiters whose marriage plans were in line with their attitudes towards marriage. For the former group, the intention to marry might reflect the perceived absence of alternatives to marriage.

Marital intentions were measured with the question 'Are you and [name of partner] planning to get married within the next 12 months?'. Respondents who answered 'yes, definitely' and 'yes, perhaps' were considered to have marriage plans. Respondents were considered not to have an intention to marry if they gave any of the following responses: 'no', 'probably not', 'no, definitely not', 'don't know' and 'we haven't discussed that yet'. To measure attitudes towards marriage, respondents were asked to what extent they personally

agreed or disagreed with the statement ‘You should get married if you permanently live with your partner’. The 5-point response scale ranged from 1=disagree completely to 5=agree. There was an additional answer category ‘don’t know’. Respondents with values of 1 or 2 were classified as disagreeing that marriage is an important social institution. Respondents with values of 4 or 5 were classified as considering marriage an important social institution and respondents with values of 3 or ‘don’t know’ were classified as being indifferent in their opinion about marriage. An overview of the distribution of the indicators can be found in Appendix 2 Table A2.

By combining the two indicators, we identified five types of cohabiter, as illustrated in Figure 1: Cohabitors who held positive attitudes towards the institution of marriage and who intended to marry were classified as viewing cohabitation as a *prelude to marriage*. Cohabitors who agreed that marriage was important but who did not intend to marry in the near future were considered *not yet ready to marry*. Our data did not allow us to distinguish between those who were not yet ready because they viewed cohabitation as a trial marriage and those who believed they were prevented from planning to marry by economic obstacles. Cohabitors who were indifferent or negative in their attitude towards marriage but nevertheless reported intention to marry were classified as *conformists*. Cohabitors with a negative attitude towards marriage who did not intend to marry were classified as *rejecting the institution of marriage*. Finally, those who were indifferent towards marriage and did not intend to marry were classified as *marriage irrelevant*.

[Figure 1 here]

Living in western Germany. In order to compare eastern and western German cohabiters, we used an indicator of whether the respondent lived in western Germany at the first interview. We

noted a large overlap between region of birth and region of residence. In the cases of within-country migration after birth, eastern Germans had more frequently moved to western Germany than the other way around ($n = 68$ vs. $n = 34$). Respondents born outside Germany more often lived in western Germany ($n = 60$ vs. $n = 9$). Additional analyses showed that we would not have drawn different conclusions if we had used place of birth instead of place of residence or if we had excluded respondents born outside Germany from the analyses (results available upon request).

Control variables. To avoid a spurious relationship caused by selection effects between our explanatory variable and the events of marrying and separating, we controlled for several characteristics that might divide cohabiters into specific types of cohabitation or might be associated with the events of marrying and separating: age at union formation (linear and squared), educational attainment, employment, sex, previous marriage, child(ren) with current partner, and religiosity. Union duration, age, and the presence of children were time-varying covariates and measured monthly. All other characteristics were time-constant. Union duration was measured in months since the couple started living together and was updated monthly and mean-centred. The age in years at union formation might influence the timing of marriage and separation, independently of union duration given age norms related to familial status changes (Settersten and Hagestad 1996). Categories used for level of educational attainment were based on the International Standard Classification of Education (UNESCO 2006). We distinguished three levels: low = primary and lower secondary; medium = upper secondary and post-secondary non-university; and high = all levels of university. For employment status, we distinguished between employed, not employed, and enrolled in education. The category 'not employed' comprised all respondents enrolled in vocational training who were unemployed, doing

internships, in occasional, marginal, and irregular employment, housewives, disabled respondents, and those on maternal or parental leave. Respondents were regarded as previously married if they had reported having been legally divorced from a previous partner or still married to a previous partner. For each biological child of the respondent, information was collected on whether the current partner was also the biological parent. We distinguished cohabiters with at least one joint child with the current partner from respondents who were childless or who had had children exclusively with a previous partner. Religiosity was measured as a combination of religious denomination and the frequency of visiting religious services. As the distribution was skewed, we created a dummy variable that distinguished religious respondents (visiting religious services at least several times a year) from non-religious respondents (no denomination or visiting church service at most twice a year). An overview of the distribution of the control variables can be found in Appendix 2 Table A2.

Hazard models of marriage and separation. We estimated a discrete time multinomial logistic regression model to investigate the relationship transitions of cohabiters (also known as competing risk analysis). We treated marriage and separation as competing events and as a function of respondents' individual characteristics in a given month. The data were organized as a person-month file (Allison 1984). When cohabiters entered the observation window (risk set) at first interview, they differed in the time since they started cohabiting. A minority (13 per cent) of the respondents in our sample had formed their union within one year before the first interview. Half of the cohabiters in our sample had been cohabiting for at least 42 months (SD=45 months; median duration 54 months in eastern and 35 months in western Germany, see Appendix Table A2). We took the union duration as the clock in our competing risk model because we assumed that the timing of the interview was irrelevant in cohabiters' marriage and separation decisions

(Guo 1993). We included the duration (time) variable of our hazard models as months of union duration and updated this value at each successive month of observation until the event occurred or right-censoring applied. In the majority of right-censored cases, this was the moment of the last wave of data collection. We thus followed cohabiting relationships that were formed before the first interview over up to four consecutive waves (i.e. roughly four years). We expected union duration to have a reversed u-shaped effect on both types of relationship transitions. Both the risk of marriage and separation were expected to initially increase with union duration and start to decrease at a given time. Therefore we also included the squared and the cubic term of union duration in our model. We did not consider multiple relationship transitions: once a cohabiter experienced a marriage or union dissolution, he or she was taken out of the risk set.

Results

First we present descriptive findings on the incidence and type of relationship transition for cohabiters in eastern and western Germany. Then we show results from a multivariate analysis, testing the association between meaning of cohabitation and the transition to marriage or separation for eastern and western German cohabiters. Effect parameters indicate the relative risks of each of the possible transitions (marriage versus separation) as competing risks relative to the reference category, which is the absence of any transition (still cohabiting at end of observation).

Table 1 shows the distribution of meanings of cohabitation measured at the first interview and, for each cohabitation type, the proportion that is married, separated or still cohabiting at the end of observation. These results are presented for the total sample, as well as for eastern and western German cohabiters separately.

[Table 1 here]

Among all German cohabiters, the largest group (33 per cent) views cohabitation as a rejection of the institution of marriage, 25 per cent are classified as being conformist, and 17 per cent do not consider it relevant to get married. Fourteen per cent view cohabitation as a prelude to marriage and the smallest group comprises cohabiters who consider themselves not being ready to marry (11 per cent). Of all 475 relationship transitions that occur during the observation period, the vast majority are marriages (73 per cent). Marriage occurs most frequently among cohabiters who view their union as a prelude to marriage or are classified as conformist. Most cohabiters who reject marriage or consider it irrelevant do not have a relationship transition, but show the highest incidence of separation (14 per cent). These patterns are echoed in the subsamples of eastern and western German cohabiters, yet we also identify some clear differences between them. As expected (Hypothesis 3a), western German cohabiters more frequently view their union as a prelude to marriage or feel that they are not ready to marry, and less frequently reject marriage or consider it irrelevant to marry. Contrary to our hypothesis, eastern Germans are more likely than their western counterparts to be classifiable as conformist. A Chi-square test reveals that the observed differences in the distributions of the cohabitation typology between eastern and western Germany are statistically significant.

The results from three discrete time multinomial logistic regression models are presented in Table 2. We examined the association between the meanings of cohabitation and the transition to marriage and separation. In Model 1, the cohabitation typology was included in order to examine whether the meaning of cohabitation was associated with the transition to marriage and separation. In Model 2, we added the control variables as well as a binary variable indicating whether the respondent was living in western Germany. In Model 3, we included interaction

terms between the place of residence and each of the cohabitation types. This model was used to examine whether the meaning of cohabitation was differently associated with marriage and separation transitions in eastern and western Germany.

[Table 2 here]

The results of Model 1 reveal first, that the meaning of cohabitation is clearly associated with the transition to marriage. Taking cohabiters who view cohabitation as a prelude to marriage as the reference group, cohabiters in all of the other types of cohabitation are less likely to marry. Switching the reference category (results not shown) reveals that all types of cohabitation differ significantly from each other. We thus find support for Hypothesis 1 that the various meanings of cohabitation are differently associated with the transition to marriage and can be ranked hierarchically. As expected, viewing cohabitation as a prelude to marriage is associated with the highest risk of marriage, and is followed in order of risk by conformists and those who are not ready to marry. Rejecting marriage or considering it irrelevant is associated with the lowest risk of marriage.

The findings in Model 1 also illustrate that the meaning of cohabitation is associated with the transition to separation, although the low incidence of separations for some of the cohabitation types causes some strong effects to be statistically insignificant. Taking cohabiters who view cohabitation as a prelude to marriage as the reference category, cohabiters of every other type have a higher relative risk of terminating their relationship. Only for those cohabiters who reject marriage is this result statistically significant. When switching the reference category (results not shown), we find only one more statistically significant difference, namely that conformists have a lower risk of separation than cohabiters who reject marriage or consider it irrelevant. We thus find some support for Hypothesis 2 for the association between meaning of

cohabitation and separation. As expected, ‘marriage-minded’ cohabiters (i.e. prelude-to-marriage and conformist types) are least likely to separate. Against our expectations, cohabiters who view their union as an alternative to marriage are most likely to dissolve their relationship. Cohabiters who are not yet ready to marry lie in between these two extremes but do not present any significant statistical difference from any other type of cohabitation.

Adding the control variables in Model 2 does not alter the effects presented in Model 1. The meanings attached to cohabitation are thus associated with subsequent relationship transitions, net of other covariates associated with the transition to marriage and separation. The linear, squared, and cubic terms of union duration show a nonlinear inversed u-shaped association between union duration and relationship transition. The relative risk of marriage increases strongly during the first years of cohabitation and peaks around five years of union duration. After five years of union duration, we do not find a discernible increase or decrease in the risk of marriage. The relationship described between union duration and relationship transition is mirrored in the model for separation but does not reach statistical significance. The age at start of cohabitation is not associated with the relative risk of marriage or separation. The level of educational attainment shows a positive gradient for marriage and a negative gradient for separation but is not statistically significant for either. Employment status is not associated with either relationship transition. Having been previously married does not have an impact on the transition to separation but is positively associated with marriage. In line with previous findings, the proportion of cohabiting parents in our sample is twice as high in eastern Germany (48 per cent) than in western Germany (24 per cent) (Table A2). Cohabiting parents do not differ from cohabiters without joint children in their relative risks of marrying or separating. Religious cohabiters have a higher risk than non-religious cohabiters of marrying their partner but do not

differ in their relative risk of separating. The former result is in line with previous findings that religious people are less likely to cohabit and more likely to marry without premarital cohabitation or to change a cohabiting union into marriage than are non-religious people (Lehrer 2004; Eggebeen and Dew 2009). This finding is driven by the western German sample, in which the proportion of religious respondents is four times as large (19 per cent) as in eastern Germany (5 per cent) and reflects the large east-west-differences in religious affiliation in Germany (Federal Statistical Office 2009). Model 2 also reveals that indeed, cohabiters living in western Germany have a higher risk of marrying. We do not find an association between place of residence and separation.

In order to examine whether the association between the meaning of cohabitation and the transition to marriage and separation differs between eastern and western Germans, we estimated a final logistic regression model, in which we included interaction terms between ‘living in western Germany’ and each of the five cohabitation types (Table 3, Model 3). In contrast to the expectations formulated in Hypothesis 3b, there is little evidence that cohabitation type is differently associated with marriage and separation in the two parts of the country. We had assumed that stronger marriage norms in western Germany would increase the pressure to marry, resulting in transition patterns to marriage being more similar between different types of cohabiter than in eastern Germany. We suggested that such norms might be especially relevant for cohabiters who reject the institution of marriage, as they would be particular at odds with the predominant view on cohabitation and marriage. In fact we do not find any statistically significant interaction between the cohabitation typology and place of residence for marriage. With regard to separation, we find one marginally statistically significant difference between eastern and western Germans who reject marriage: the differences between cohabiters rejecting

marriage and those viewing cohabitation as a prelude to marriage are indeed larger in western than in eastern Germany.

Discussion

In this study, we investigated how the relationship transitions of cohabiters—to marriage and separation—are influenced by the meaning they attach to their unions. We were also interested in whether these associations differed between eastern and western German cohabiters.

Our first key finding was that cohabiters were heterogeneous in their attitude to cohabitation and that their relative risks of marrying varied independently of union duration, age, educational attainment, employment situation, union duration, age at start union, prior marriage, the presence of joint children, and religiosity. About half the German cohabiters in our sample viewed cohabitation as an alternative to marriage, either because they rejected the institution—the largest group— or because they considered it irrelevant to their lives. These cohabiters were least likely to marry. Yet some of them did marry, suggesting that there might have been incentives for them to legalize their union or that they changed their mind about marriage. A large minority (almost 40 percent) of German cohabiters were very much oriented towards marriage: either they considered cohabitation a prelude to marriage or they succumbed to normative pressure. These types of cohabiter were the most likely to marry. Cohabiters who were not yet ready to marry occupied a position in between, suggesting that marriage was meaningful to them but that they were unsure whether the current partner or this particular moment in their life was the right one for proceeding to marriage.

Our second key finding was that the meaning of cohabitation—net of other covariates — was associated with the relative risk of separation. As expected, cohabiters who viewed

cohabitation as a prelude to marriage or those who were classified as conformists were least likely to end their union. The fact that they had marriage plans expressed their strong commitment to the institution and the high costs of leaving the union. We expected cohabiters who were not yet ready to marry to have the highest relative risk of ending the union. Although this group did indeed have a higher relative risk of separating than the previous two groups, the difference was not statistically significant, probably owing to the small number of observations. Cohabiters who viewed cohabitation as an alternative to marriage had a higher relative risk of separating than cohabiters who envisaged marriage. On the other hand, we found no difference in the risk of separating between those who saw cohabitation as an alternative to marriage because they were ideologically opposed to it and both those who cohabited because they considered marriage irrelevant and those who cohabited because they were not yet ready to marry. These findings suggest that cohabiters who hold negative attitudes towards the institution of marriage, and are not willing to conform to traditional family expectations, might also be more likely to be weakly committed towards the relationship itself. However, the vast majority of cohabiters who were classified as viewing their union as an alternative to marriage did not have any relationship transition during the observation period and were still cohabiting at the last interview.

A third key finding of this study was that eastern and western German cohabiters differed in the mix of meanings attached to cohabitation, as well as the way in which being classified as rejecting marriage was associated with entry into marriage. Cohabitation in western Germany was more often viewed as a stage in the marriage process, a result which is in line with previous findings that western German cohabiters were more likely to institutionalize their union through marriage and did so more swiftly than eastern German cohabiters (Kreyenfeld and Konietzka 2005). Eastern German cohabiters have previously been found more likely to view their union as

an alternative to marriage, an attitude reflected in the higher rate of childbearing within cohabitation in eastern Germany (Huinink et al. 2012).

In line with our expectations, we found that western German cohabiters who rejected marriage were more likely than prelude-to-marriage cohabiters to separate than were their eastern German counterparts. This finding suggests that in western Germany—where strong norms favouring marriage prevail—the types of cohabitation that embody views about it which differ most from the predominant view are the most fragile unions. It should, however, be noted that this conclusion is based on a small number of observations and only reaches marginal statistical significance. Thus contrary to our Hypothesis 3b, we did not find significant differences in the association between meaning of cohabitation and entry into marriage in eastern and western Germany.

We believe our cohabitation typology—formulated to grasp the diversity of meanings of cohabitation in eastern and western Germany—proved useful as a means of understanding differences in the relationship transitions of cohabiters in two different regions. Nevertheless, we acknowledge that the study had several limitations. Like other panel studies that do not follow cohabiters from the start of the union onwards, we could not effectively address the issue of left truncation: we could observe only those cohabiters who were (still) cohabiting at Wave 1. Consequently cohabiting relationships that dissolved quickly but also the most marriage-prone cohabiters had a lower chance of being selected in our sample, resulting in a possible overrepresentation of long-term and stable cohabiting relationships. This could partly explain why the group of cohabiters who rejected the institution of marriage was so large in a country where marriage is persistently popular (Federal Institute for Population Research 2013). To some

degree, though, we accommodated for this selectivity by taking union length as the duration variable (Guo 1993).

Another limitation of the study concerns the indicators defining our cohabitation typology. Ideally, surveys would directly ask cohabiters why they are cohabiting. In the absence of data on self-assessed motives to cohabit, we combined indicators of marital intention and attitude to derive a set of ideal types of different meanings of cohabitation. The item to measure whether respondents considered marriage an important institution ('It is important to marry if one wants to stay with a partner permanently') was not as strong as one would have preferred. Despite this, the cohabitation typology revealed interesting differences between the groups which had no plans to marry, but differed in their general attitudes towards marriage. It was thus the combination of marital intention and attitude that increased our understanding of the heterogeneous relationship careers of cohabiters.

A further consideration to be borne in mind is that our classification of cohabiters into different types of cohabitation was based only on the respondent's characterization of the union by intention to marry and a general attitude towards marriage and at a single interview. Of course, that characterization might have changed over time and might change in the future. One obvious reason for change is that transitions, especially into marriage, are influenced by both partners' views on the union, their circumstances, and their individual characteristics. It could also be that some cohabiters' experience of subsequent marriage and separation had less to do with their own view on the relationship when interviewed than with that of their (uninterviewed) partner. Differences in partner's view on cohabitation may also have affected how our respondents saw their union when interviewed. For example, some of the cohabiters classified as conformist because they intended to marry despite their less favourable view on marriage, may

have found themselves in this category because their partner considered it important to get married. In PAIRFAM, information on the respondent's partner is mainly collected in an additional questionnaire completed by the partner him- or herself. Of the 1,258 cohabiters (respondents) in our sample, only 845 of their partners participated in the partner survey. This number was unfortunately too low for us to be able include partner information in our analyses.

Overall, we believe our nuanced cohabitation typology provided valuable insights into the processes that lead cohabiters in Germany to marry or part. We clearly showed that cohabitation means different things to different people and that the future relationship careers of different types of cohabiters vary markedly. In Germany, a substantial part of the cohabiting population is in each type, with half those in that population seeing cohabitation as an intermediate step before marriage and who acted upon this by marrying. The fact that some cohabiters who opposed the institution of marriage still married suggests that there might be social pressures at work that lead marriage to remain a central element in the family system in contemporary Germany. Future research is needed to reveal what cohabitation means in other countries and how the meaning of cohabitation is associated with marriage and separation.

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Appendix 1. Response rates

The overall response rate was 37 per cent for the first wave of PAIRFAM and 29 per cent for DEMODIFF . Comparable response rates have been observed in other German surveys. The response rate for the German General Social Survey (ALLBUS 2008) was 38 per cent in the age group 25-27 years and 39 per cent in the age group 35-37 years. The refreshment sample of the German Socioeconomic Panel survey (2006) had only a slightly higher response rate of 40 per cent, and the German Generations and Gender Survey (2005) had a response rate of 55 per cent for the whole age range 18-79 years.

Table 1 Distribution of different cohabitation types among 1,258 German cohabiters (aged 25-27 and 35-37 years) at first interview and their relationship status four years later

		Wave 1				End of observation				Total	
		Cohabiting		Married		Separated		Cohabiting			
		n	%	n	%	n	%	n	%	n	%
Germany	Prelude to marriage	176	14.0	89	50.6	11	6.3	76	43.2	176	100.0
	Not ready to marry	140	11.1	33	23.6	14	10.0	93	66.4	140	100.0
	Conformist	314	25.0	149	47.5	17	5.4	148	47.1	314	100.0
	Refusal of marriage	409	32.5	40	9.8	58	14.2	311	76.0	409	100.0
	Marriage is not relevant	219	17.4	34	15.5	30	13.7	155	70.8	219	100.0
	Total	1,258	100.0	345	27.4	130	10.3	783	62.2	1,258	100.0
Eastern Germany	Prelude to marriage	68	11.7	26	38.2	8	11.8	34	50.0	68	100.0
	Not ready to marry	57	9.8	8	14.1	5	8.8	44	77.2	57	100.0
	Conformist	152	26.1	61	40.1	7	4.7	84	55.3	152	100.0
	Refusal of marriage	199	34.1	18	9.1	23	11.6	158	79.4	199	100.0
	Marriage is irrelevant	107	18.4	11	10.3	18	16.8	78	72.9	107	100.0
	Total	583	100.0	124	21.3	61	10.5	398	68.3	583	100.0
Western Germany	Prelude to marriage	108	16.0	63	58.3	3	2.8	42	38.9	108	100.0
	Not ready to marry	83	12.3	25	30.1	9	10.8	49	59.0	83	100.0
	Conformist	162	24.0	88	54.3	10	6.2	64	32.5	162	100.0
	Refusal of marriage	210	31.1	22	10.5	35	16.7	153	72.9	210	100.0
	Marriage is irrelevant	112	16.6	23	20.5	12	10.7	77	68.8	112	100.0
	Total	675	100.0	221	32.7	69	10.2	385	57.0	675	100.0

Source: German Family Panel (PAIRFAM Round 1-4, 2008/09-2011/12) and DEMODIFF (Round 1-3, 2009/10-2011/12).

Table 2 The proportion of 1,258 German cohabiters aged 25-27 years and 35-37 years at first interview married or separated four years later regressed on type of cohabitation and other factors associated with marriage and separation, stepwise inclusion of variables

Dependent (ref: cohabiting)	Model 1		Model 2		Model 3	
	Marriage	Separation	Marriage	Separation	Marriage	Separation
	Relative risks					
Cohabitation duration (CDY)			1.03	0.96	1.03	0.96
CDY ²			0.97 ***	0.97	0.97 **	0.97
CDY ³			1.00 ***	1.00	1.00 **	1.00
Age at start cohabitation			0.90	0.94	0.90	0.93
Age at start cohabitation squared			1.00	1.00	1.00	1.00
Education (ref.: Primary education)						
Secondary education			1.39	0.88	1.40	0.85
Higher education			1.37	0.74	1.37	0.73
Employment (ref.: employed)						
not employed			0.99	0.91	0.99	0.90
in education			0.89	0.83	0.89	0.82
Previously married (ref.: never married)			1.57 **	0.87	1.58 **	0.53
Joint child(ren) with partner (ref.: no)			0.91	0.54	0.91	0.78
Religious (ref.: not religious)			1.65 **	0.79	1.64 **	0.89
Sex (ref: male)			1.07	1.20	1.07	1.22
Living in western Germany (ref.: eastern Germany)			1.46 ***	0.87	1.36	0.32
Cohabitation typology (ref.: Prelude to marriage)						
Not ready to marry	0.47 ***	1.94	0.45 ***	1.77	0.30 **	0.72
Conformist	0.71 **	1.11	0.65 **	1.19	0.62 *	0.49
Rejection of marriage	0.13 ***	2.95 *	0.12 ***	3.28 **	0.17 ***	1.01
Marriage is irrelevant	0.26 ***	1.72	0.25 ***	1.69	0.15 ***	1.41

Table continues on next page

Interaction terms (ref.: prelude*West)

Not ready to marry*West							1.54	3.04
Conformist*West							1.05	3.10
Rejection of marriage*West							0.69	4.16
Marriage is irrelevant*West							1.73	1.21 †
Constant	0.033	***	0.002	***	0.086	0.012	0.091	0.031
Chi square		108.29			230.20			261.17
Log-Likelihood		-2167.61			-2130.65			-2128,04
Model pseudo R ²		0.04			0.06			0.0570

Note: analysis performed on weighted data (standardized, cross-sectional combined post-stratification and design weight)

*** $p < 0.001$; ** $p < 0.05$; * $p < 0.05$. † $p = 0.1$

Source: German Family Panel (PAIRFAM Round 1-4, 2008/09-2011/12) and DEMODIFF (Round 1-3, 2009/10-2011/12).

Appendix 2 Table A2: Distribution of variables included in the analysis of marriage and separation risks of 1,258 German cohabiters aged 25-27 and 35-37 at first interview, by region of residence

	Germany		Eastern Germany		Western Germany	
	n	%	n	%	n	%
<i>Indicators for cohabitation typology</i>						
Positive attitudes towards marriage	316	25.3	125	21.7	191	25.8
Indifferent attitudes towards marriage	390	28.12	196	33.2	194	27.3
Negative attitudes towards marriage	552	46.6	262	45.0	290	46.9
Marital intentions within 12 months	490	39.4	220	35.2	270	40.0
<i>Socio-economic characteristics</i>						
Primary/lower secondary education	154	13.7	54	9.6	100	14.3
Upper/post-secondary education	751	52.0	391	62.3	360	50.3
University education	353	34.3	138	28.1	215	33.4
Employed	842	67.2	383	63.5	459	67.8
Not employed	295	21.6	155	26.5	140	20.7
Enrolled in education	121	11.3	45	10.0	76	11.5
<i>Socio-demographic and life course characteristics</i>						
Median cohabitation duration in months at Wave 1 (SD)	42 (45.4)		54 (49.2)		35 (46.4)	
Median age at start cohabitation (SD)	25 (4.9)		25 (4.9)		25 (4.7)	
Female	684	51.0	312	46.5	372	51.8
Previously married	150	10.1	72	9.7	78	10.2
Joint child(ren) with current partner	453	27.3	298	48.0	155	23.8
Religious	152	17.2	29	5.2	123	19.2
Number of observations	1,258	100.0	583	48.0	675	52.0
Person-months	28,155		12,638		15,517	

Source: German Family Panel (PAIRFAM Round 1-4, 2008/09-2011/12) and DEMODIFF (Round 1-3, 2009/10-2011/12).

Figure 1: Typology of cohabitation

		Marriage intention	
		No	Yes
Attitude towards marriage	Positive	Not ready yet to marry	Prelude to marriage
	Neutral	Marriage irrelevant	Conformist
	Negative	Reject marriage	

Source: German Family Panel (PAIRFAM Round 1-4, 2008/09-2011/12) and DEMODIFF (Round 1-3, 2009/10-2011/12).