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*Research Article*

### **Joint lifestyles and the risk of union dissolution: Differences between marriage and cohabitation**

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## **Joint lifestyles and the risk of union dissolution: Differences between marriage and cohabitation**

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### **Abstract**

#### **BACKGROUND**

Love, intimacy, and companionship are considered the cement of contemporary couple relationships. Yet previous research studying how the way that couples arrange their social life and leisure time relates to the stability of their union has focused exclusively on married couples.

#### **OBJECTIVE**

This study examines the extent to which married and cohabiting couples have joint lifestyles and how this relates to their risk of union dissolution, and explores heterogeneity within these groups. In this way, it provides insight into how couples in these different types of unions arrange their lives jointly and what keeps them together.

#### **METHODS**

We apply multilevel panel models and Cox event history models using four waves of the Netherlands Kinship Panel Study (N = 4,255).

#### **RESULTS**

Cohabitors have more separate lifestyles than married couples, in particular when it comes to joint friendships and social visits, while marital intentions or prior cohabitation makes no difference. Joint lifestyles are – for marriage and cohabitation – negatively related to the risk of union dissolution.

#### **CONCLUSIONS**

Companionship – that is, a joint lifestyle – seems to have an important role in couple relationships. Although the marital vow still divides couples in how they arrange their lives together, joint lifestyles seem to be equally important in keeping cohabiting and married couples together, suggesting that married and cohabiting couples do not differ in their social foundations.

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## **CONTRIBUTION**

This study is one of the first to examine the relation between joint lifestyles and separation for cohabiting couples, and to use a longitudinal design with a prospective and sophisticated measure of joint lifestyles.

## **1. Introduction**

Love, intimacy, and companionship are considered central benefits of contemporary couple relationships (Spitze and South 1985; Giddens 1992; Cherlin 2004). The way couples arrange their social life and leisure time, such as sports activities or going out, is likely to be an important aspect of these benefits. Couples with what we may call a joint lifestyle engage in leisure activities together and have shared friendships and other social contacts. Having a joint lifestyle provides the opportunity for conversation, getting to know each other better, and building shared experiences, which could bind couples together (Kalmijn and Bernasco 2001). Therefore, one would expect that the more couples operate jointly in their leisure time, the lower their risk of union dissolution.

Previous studies support this expectation (e.g., Booth et al. 1984; Hill 1988; Gager and Sanchez 2003; Yucel 2012). Research is, however, sparse and has focused exclusively on marriage, thereby disregarding cohabiting couples. We argue that looking at joint lifestyles and their relation to union dissolution among married as well as cohabiting couples can provide new insights into the differences between them. Cohabiting unions are less stable (Liefbroer and Dourleijn 2006; Goodwin, Mosher, and Chandra 2010) and have been found to differ in a number of economic dimensions, such as the division of labor and decisions on joint investments (Brines and Joyner 1999; Kalmijn, Loeve, and Manting 2007; Poortman and Mills 2012). Furthermore, there is also evidence that what keeps couples together differs between cohabiting and married couples in that a traditional division of paid labor is stabilizing for married but not for cohabiting couples (Brines and Joyner 1999; Kalmijn, Loeve, and Manting 2007). It is often argued that these findings reflect cohabiters' lower levels of commitment and more progressive, individualistic value orientations, making couples differ in what they seek in their relationship (Thomson and Colella 1992; Liefbroer and Dourleijn 2006). We apply these explanations to the social dimensions of couple relationships and contend that differences in commitment and values can be expected to find expression in how couples arrange their leisure time and how that relates to the stability of their union. In this way, by studying joint lifestyles, we might shed new light on the ongoing debate about whether and how marriage and cohabitation differ

and what keeps couples together (e.g., Manting 1996; Kulu and Boyle 2010; Hiekel and Keizer 2015; Brown, Manning, and Payne 2015).

In addition, we take into account the heterogeneity within the broader groups of marriage and cohabitation. We distinguish cohabiters with marital intentions from those without and married couples who cohabited prior to their marriage from those who did not. This finer distinction increases our theoretical understanding of the difference between cohabitation and marriage. If differences in values and commitment underlie differences between marriage and cohabitation, we would expect to also find varying levels of joint leisure within marriage and cohabitation (Poortman and Mills 2012).

We address the following research questions: (1) To what extent do couples in marriage and cohabitation differ in the extent to which they have joint lifestyles, and are there finer distinctions within marriage and cohabitation? (2) To what extent does having joint lifestyles affect the risk of union dissolution? and (3) To what extent does this relation differ between marriage and cohabitation, and within the groups of married and cohabiting couples? The present study is – as far as we are aware – the first to consider cohabiters' joint lifestyles and their relation to union dissolution. In addition, it contributes to the literature by taking into account the heterogeneity within marriage and cohabitation. So far, just a few studies have gone beyond the dichotomy of marriage and cohabitation (e.g., Thomson and Colella 1992; Brown and Booth 1996; Poortman and Mills 2012) and only with regard to relationship stability or quality and the economic organization of couple relationships. Furthermore, it improves methodologically upon previous studies by using a longitudinal design with a prospective and sophisticated measure of joint lifestyles. Previous studies analyzed data from earlier divorced respondents who reported lifestyles retrospectively (e.g., Poortman 2005), which suffers from problems of recall, or predicted proxies of divorce such as “discussing divorce” instead of its occurrence (e.g., Booth et al. 1984). Studies that combined a prospective measure of lifestyles with the observed event of divorce often merely operationalized joint lifestyles as the amount of time spent together (Gager and Sanchez 2003; Presser 2000; Terling-Watt 2001; Yucel 2012). Such a measure not only provides little insight into the nature of this time, but is also obviously sensitive to the amount of leisure time in general (Kalmijn and Bernasco 2001). We follow the recommendation of Kalmijn and Bernasco (2001) and make use of a relative measure: that is, the portion of activities engaged in together relative to the total activities participated in, and consider leisure activities, friends, and visiting friends and family separately.

We analyze four waves of the Netherlands Kinship Panel Study (NKPS 2002–2014), tracking relationships for 12 years, which allows longitudinal examination of the relationship between prospectively measured joint lifestyles and the observed event of union dissolution. The Netherlands is an interesting country to study as it was one of

the forerunners in adopting unmarried cohabitation as a means of family formation and, nowadays, cohabitation has become a widespread model of union formation (Statistics Netherlands 2011; Hiekel 2014).

## **2. Theory**

### **2.1 Joint lifestyles in marriage and cohabitation**

Married and cohabiting couples can be expected to differ in how they jointly arrange their lifestyles for two reasons. First, in studies on the comparison of marriage and cohabitation, marriage has been argued to signal that partners desire a long-term future together and are willing to make sacrifices for the good of the relationship (Kline Rhoades, Stanley, and Markman 2006). Marriage signals a higher level of commitment than cohabitation, for it is not only a legal contract but a vow taken in public (Cherlin 2004; Perelli-Harris et al. 2014). From this point of view, marriage is not only different from cohabitation in its level of legal commitment but also entails stronger commitment to the normative expectations of the outside world, such as parents or friends (Waite and Gallagher 2002). This difference might find expression in couples' joint lifestyles, because having a joint lifestyle can be considered a relation-specific investment: an investment in a specific relationship that is indivisible and declines considerably in value when the relationship dissolves (Becker, Landes, and Michael 1977). In the case of joint lifestyles, it can be argued that if the relationship ends, the partners miss the formerly shared activities and lose part of the shared social network, as friends may feel the urge to choose between them (Kalmijn and Van Groenou 2005). This illustrates the risky character of investing in a joint lifestyle: It increases the extent to which the partner is bound, reducing the risk of being abandoned, but at the same time it makes the consequences of ending the relationship more severe. When uncertain about the sustainability of the relationship, partners might keep their lifestyles more separate because the risk of dissolution is higher. In contrast, when the relationship has a long-term horizon and there is more certainty that it will last, investing in a joint lifestyle is less risky. Therefore, one could argue that cohabiting couples, having a lower level of commitment, keep their lifestyles more separate than married couples, as in line with previous findings (Kalmijn and Bernasco 2001). Likewise, in a number of domains, relation-specific investments are lower among cohabiters: They are less likely to have children together (Kiernan 2001; Lichter 2012), to have "joint purses" (Hamplová, Le Bourdais, and Lapierre-Adamcyk 2014; Hiekel, Liefbroer, and Poortman 2014), to purchase a home (Poortman and Mills 2012), and to have a specialized division of labor (Davis, Greenstein, and Marks 2007; Baxter, Haynes, and Hewitt 2010).

Second, cohabiters have been found to have more progressive, individualistic values than married people (Axinn and Thornton 1992; Clarkberg, Stolzenberg, and Waite 1995; Brines and Joyner 1999). Giddens (1992) suggested that individualization of value orientations has led to an increasingly important role for self-disclosure, intimacy, and love in relationships and a decline in the power for institutions and social norms (“transformation of intimacy”). People holding individualistic values enter a relationship for their own sake – that is, for intimacy and love – and it will last only for as long as they are satisfied (Cherlin 2004). More individualistic values would therefore be associated with a more important role for intimacy in unions, which could mean that cohabiting couples, having more individualistic values, have more joint lifestyles.

At the same time, one could argue that individualistic values entail, in addition to the need for self-disclosure and intimacy, the need for autonomy (Brines and Joyner 1999). This implies that people with individualistic values consider it important to have their own individual social life and to engage in leisure activities individually. According to this line of reasoning, cohabiting couples, having more individualistic values, are expected to keep their lifestyles more separate than married couples.

Because the theoretical arguments do not lead to a clearly directed hypothesis, we take an exploratory approach and examine whether cohabiting couples and married couples differ in the extent to which they have joint lifestyles. In addition, we explore differences within marriage and cohabitation to get some more insight into the underlying mechanisms. If couples differ in their intentions and decisions with regard to marriage and cohabitation, one would also expect differences in their level of commitment as well as their value orientations and, subsequently, their joint lifestyles. First, cohabiters with marriage intentions are expected to have more traditional values and signal stronger commitment than cohabiters without marriage intentions. They value the institution of marriage, intend to bind themselves in the future, and seem to perceive cohabitation as a stage before marriage. Second, directly married couples signal a higher level of commitment than those couples who cohabited prior to their marriage because they have committed themselves without the trial period of cohabitation (Kline Rhoades, Stanley, and Markman 2006). With regard to value orientations, directly married couples were found to be a particularly selective group. In societies like the Netherlands, where cohabitation has become a majority phenomenon, this group consists mainly of those holding strong traditional values and who reject cohabitation on religious grounds (Liefbroer and Dourleijn 2006).

## **2.2 Joint lifestyles and the risk of union dissolution**

Having joint lifestyles can be expected to decrease the risk of union dissolution for three main reasons. First, having joint lifestyles enhances emotional attachment. It implies that partners spend time together. During this time, couples can get to know each other better by communicating and by simply being exposed to each other, resulting in a relationship that is more intimate and more strongly based on shared experiences. This may especially be the case for joint time in the context of leisure, which is often characterized by lower levels of time pressure and stress than interaction during daily routines. Knowing each other well and having more shared experiences can help partners to reach mutual understanding and could thereby positively affect the perceived quality of the relationship (Hill 1988; Kalmijn and Bernasco 2001).

Second, a joint lifestyle, being a relation-specific investment, increases not only the benefits of the relationship but also the costs of union dissolution. It can be enjoyed during the relationship, but when the union is dissolved partners have to reinvent how to spend their leisure time and might lose part of their social network (Kalmijn and Van Groenou 2005). Couples who used to have more separate lifestyles and have now broken up can continue their leisure activities in the way they used to and can stay in touch with the main part of their social network since most friends were not connected to the ex-partner. Given these smaller losses, couples with more separate lifestyles could be more likely to dissolve their union – even given equal perceived quality of the relationship.

Third, having joint lifestyles reduces the opportunities to engage in new partnerships. The availability of alternative partners has been found to increase the risk of union dissolution (South and Lloyd 1995; South, Trent, and Shen 2001). Joint lifestyles increase the possibility to monitor the partner. It is likely that people are less inclined to reach out to a potential new partner within sight of their partner than they would be in his/her absence. Being accompanied by a partner also signals to others that both are already engaged in a relationship. Again, this would reduce the likelihood of getting romantically involved with others (South, Trent, and Shen 2001).

We thus expect that the more joint a couple's lifestyle is, the lower the risk of union dissolution, because joint lifestyles increase the benefits of the relationship and the costs of union dissolution, and decrease opportunities to engage in alternative partnerships. Previous research focused exclusively on married couples and found support for this expectation: The more a married couple engages in leisure time jointly, the lower the risk of union dissolution (Booth et al. 1984; Hill 1988; Poortman 2005; Yucel 2012).

It should be acknowledged that our analyses – like most prior studies on this subject – do not allow isolation of a causal effect and that alternative mechanisms could be at work. Couples at high risk of separation might feel unsatisfied with their

relationship and therefore withdraw from spending leisure time together. At the same time, selection may play a role: Certain characteristics may lead to more joint lifestyles and at the same time a higher risk of union dissolution. The present study is not aimed at strong causal inferences, but rather focuses on examining how joint lifestyles relate to the risk of union dissolution for couples in different types of unions in order to get insight into the differences between them.

### **2.3 Joint lifestyles and dissolution of marriage and cohabitation**

If, as we argued previously, marriage is a stronger commitment than cohabitation, legally as well as normatively (Waite and Gallagher 2002), this implies that the cement holding a marriage together could comprise other components, besides a joint lifestyle, than those keeping cohabiting couples together. Therefore, the risk of dissolution of a cohabiting union might depend more on a joint lifestyle than the risk of dissolution of a marriage.

Furthermore, if married and cohabiting couples hold different values, they might differ in what they seek in a relationship (Clarkberg, Stolzenberg, and Waite 1995), and in the weight given to certain aspects in the decision to continue or dissolve it. In support of this expectation, a traditional division of labor has been found to stabilize marriage, not cohabitation (Brines and Joyner 1999; Kalmijn, Loeve, and Manting 2007). The idea that individualistic values are associated with a more important role for intimacy (Giddens 1992) could mean that a joint lifestyle is a more salient factor in the decision whether or not to dissolve a relationship. In contrast, if individualism is seen as a greater need for autonomy (Brines and Joyner 1999) one could argue that the way social life and leisure time with the partner are arranged is of lower importance when having individualistic values: The emphasis is rather on how the individual life is arranged.

To summarize, the theoretical arguments do not point in a clear direction but provide reasons to expect differences in the importance of joint lifestyle in the risk of dissolution in marriage and cohabitation. Because levels of commitment and selection on the basis of progressive values are likely to vary depending on marital intentions and whether or not couples previously cohabited, we also explore differences within marriage and cohabitation.

### **3. Method**

#### **3.1 Data**

To test the hypotheses, data from four waves of the Netherlands Kinship Panel Study (NKPS), conducted in 2002–2004, 2006–2007, 2010–2011, and 2014 respectively (Dykstra et al. 2005, 2012; Hogerbrugge et al. 2012; Merz et al. 2014), was analyzed. This nationally representative longitudinal survey data provides rich prospective reports on the relationships of respondents, aged 18–79, in cohabiting and marital unions. Respondents were interviewed face-to-face at home and in addition self-completion questionnaires were filled out. In the first wave (N = 8,161), the NKPS obtained a response rate of 42.2% for the face-to-face interviews, which is common for the Netherlands (Dykstra et al. 2005). Retention rates in the subsequent waves were 74.6% in the second wave, 72.1% in the third, and 64.5% in the fourth. In addition to a module with questions about the partner answered by the anchor respondent that was included in every wave, the first and second waves of the NKPS included an additional partner questionnaire. In only a proportion of the couples (72%) did the partner complete this questionnaire, and in unions about which the anchor reported higher relationship quality, the partner was more likely to respond (Dykstra et al. 2012). Concerns about a selective reduction of the sample led to the decision to include only the anchor's reports on the partner characteristics in this study rather than the partner questionnaire. Our unit of analysis is the couple: Having a joint lifestyle and the risk of union dissolution were considered couple characteristics, even though they were reported by one of the partners. This also implies that the data has a multilevel structure: A respondent can appear in the data multiple times if he/she had multiple unions during the period of observation.

The following selections were made. First, unions needed to be observed for at least two waves. In this way, the respondent answered questions about his/her partner and their intact union (e.g., joint lifestyles) at least once, and we could observe for at least the time in between two waves whether or not dissolution took place. In addition, unions dissolved within the calendar year of the interview in which it was first tracked were not included. Because the risk of union dissolution was estimated with yearly time intervals, the observed period of these unions (one year or less) was too short to estimate the risk of union dissolution. These selections reduced our sample to 4,385 respondents in which 4,433 unions are nested.

Second, unions about which the respondent provided inconsistent reports with regard to relationship status were excluded (N = 50). Over the waves, relationship status was assessed at least twice: once in the wave in which the respondent reported on the current union and once retrospectively in the follow-up wave for verification. The

relationship status as reported in the previous wave was presented and could be confirmed or corrected. The reliability of these inconsistent reports is questionable and, given the routing of the questionnaire (the relationship status determined which questions were asked), these cases had missing values for questions on key variables, such as joint lifestyles and date of cohabitation or marriage.

Third, we focused on heterosexual couples. Same-sex unions have been found to differ from heterosexual unions in several respects (Solomon, Rothblum, and Balsam 2005). Because the number of same-sex couples in the sample ( $N = 76$ ) was too low to analyze separately, these couples were excluded from the sample.

Finally, a small number of cases with impossible or missing values on the variables included in the analyses were excluded, resulting in a final sample of 4,255 unions nested in 4,221 respondents (0.8% had multiple unions). Within this sample, there is much variation in age (respondents were born between 1923 and 1985) and a slight overrepresentation of female respondents (58%). At the date of the first interview, 92% of the unions were already formed (with a median duration of 19 years) and 79% of these unions were marriages. In total, 164 married couples and 98 cohabiting couples dissolved their union.

## **3.2 Measures**

Our research questions required two types of models. In the first, joint lifestyles served as the dependent variable, whereas in the second, the risk of union dissolution was predicted.

### **3.2.1 Central variables**

The central concept in this study, joint lifestyles (time-varying), was measured using four questions that were included in each wave of the NKPS. First, respondents were asked, "Please indicate whether you usually do the following together with your partner or also without your partner" for "visiting friends," "visiting family," and "going away for the day, spending time on a hobby or a club/association." Answer categories ranging from (1) "usually alone, without partner" to (4) "usually together," along with the option "not applicable (never do this)," were provided. Second, respondents were asked, "Are your friends mostly your own friends or friends shared with your partner?" with answers on a scale ranging from (1) "mostly my own friends" to (4) "mostly shared friends," along with the option "I don't have any friends." From these items, a mean scale was constructed. Items respondents indicated not to be applicable (e.g., "I

don't have any friends", "never do this") were excluded from this scale, so that the mean is based on the remaining items. A higher score on this scale indicates a more joint lifestyle. In addition, these items were analyzed separately as well in order to gain a more nuanced view on differences in joint lifestyles.

To model the time-dependent character of union dissolution, survival models with yearly time intervals were estimated (for more details, see analytical strategy below). The dependent variable is the conditional probability of dissolution of a union at the end of a calendar year given that it has not yet taken place. Union dissolution was assessed by asking whether the respondent was still together with the partner reported in the previous wave. If not, the respondent indicated whether they had separated/divorced or the partner had deceased, and provided the year of the dissolution/death. Panel dropout and the death of one of the partners were considered right-censoring. Unions that ended in separation/divorce were given the value 1 (the event took place), all other unions the value 0 (the union was censored without the event taking place).

For the variable union type (time-varying), unions were categorized as being married or cohabiting on the basis of two indicators provided by the respondent: starting date of cohabitation and date of marriage. In the first wave, respondents reported the starting year of cohabitation and the year of marriage with their current partner (if applicable). In each follow-up wave, the union transitions in between waves were reported: for example, whether the respondent started cohabiting or got married, along with the monthly dates of these events. Among cohabiters, two groups were distinguished using the question "Would you like to get married in the future?" Respondents answering "yes" were considered to have marriage intentions, those answering "no" or "don't know" were considered to have none. Among married respondents, those who married their partner without having cohabited first were distinguished from former cohabiters, using their reported relationship history.

### **3.2.2 Control variables**

The analyses were controlled for the following variables, as they are known to be associated with union type and joint lifestyles, as well as union dissolution: education, work, age of female partner, union duration, age of youngest child, and gender of anchor respondent. Educational attainment (time-constant) of both partners was categorized as "high" (higher vocational or university) and "middle" (intermediate secondary to intermediate vocational), with "low" (lower general secondary or lower) as the reference category. From the absolute, factual (rather than contractual) number of working hours (time-varying) per week, a variable with the categories "part-time" (35 hours or less) and "full-time" (more than 35 hours) was constructed, with "no work" as

the reference category. Age of the female partner at the start of the union (time-constant) was measured in years. Union duration (time-varying) was measured in years from the starting date of cohabitation. Note that in the models predicting union dissolution (see analytical strategy below), the term of this variable is not visible as it was included as part of the estimated survival time the model builds on. Age of the youngest child (time-varying) the couple had together was categorized in age groups, with “no children” as the reference category. Gender of the anchor respondent (time-constant) has male respondents as the reference category. In the models, we tested for multicollinearity ( $VIF > 10$ ). This led to the decision not to include age of the male partner and birth cohort, and to categorize age of the youngest child.

The survival analyses predicting the risk of union dissolution were controlled for parental divorce (time-varying) of both partners. For the survival analyses, all time-varying variables were lagged one year. Table 1 displays the descriptive statistics on union level based on the (nonlagged) values of the most recent report on the union, for cohabitation and marriage separately. These raw numbers show that cohabiting couples differ from married couples in many ways. Cohabitors have more joint lifestyles and more often dissolve their union. Relative to marital unions, cohabitation is of shorter duration and involves fewer children. Furthermore, the cohabiting couples are more highly educated, more often work full-time (especially the female partner), and more often experienced parental divorce.

**Table 1: Descriptive statistics**

Union-level variables	Married (N = 3,537)				Cohabiting (N = 718)			
	M/Prop.	SD	Min.	Max.	M/Prop.	SD	Min.	Max.
Union dissolution	0.05				0.18			
Union type (4 categories)								
Directly married	0.57				–			
Married after cohabitation	0.42				–			
Cohabitation with marriage intention	–				0.44			
Cohabitation without marriage intention	–				0.56			
Joint lifestyles (mean scale)	3.04	0.65	1	4	2.76	0.68	1	4
Joint lifestyles (items)			1	4				
Visit family (N = 4,219)	3.42	0.76	1	4	3.14	0.88	1	4
Visit friends (N = 4,197)	3.18	0.93	1	4	2.81	0.97	1	4
Friends (N = 4,154)	2.96	1.00	1	4	2.45	1.06	1	4
Leisure activities (N = 4,167)	2.61	1.11	1	4	2.62	1.09	1	4
Age of female partner at start of union	24.63	6.10	15	73	30.58	10.35	16	83
Education of female partner								
Low	0.41				0.19			
Middle	0.30				0.31			
High	0.29				0.50			
Education of male partner								
Low	0.30				0.20			
Middle	0.30				0.31			
High	0.40				0.48			

**Table 1: (Continued)**

Union-level variables	Married (N = 3,537)				Cohabiting (N = 718)			
	M/Prop.	SD	Min.	Max.	M/Prop.	SD	Min.	Max.
Work of female partner								
No work	0.42				0.17			
Part-time	0.49				0.49			
Full-time	0.09				0.34			
Work of male partner								
No work	0.29				0.12			
Part-time	0.10				0.15			
Full-time	0.61				0.73			
Union duration	25.62	13.54	0	62	7.81	7.26	0	63
Age of youngest child								
No children	0.13				0.66			
< 5 years	0.16				0.21			
5–12 years	0.20				0.09			
13–18 years	0.11				0.02			
> 18 years	0.40				0.01			
Anchor female (vs. male)	0.58				0.60			
Parents of male partner divorced	0.09				0.17			
Parents of female partner divorced	0.08				0.19			

Note: Displayed values are based on the most recent report on each union.

### 3.3 Analytical strategy

The research questions were answered in two analytical steps. First, to assess whether couples in marriage and cohabitation differ in the extent to which they have joint lifestyles, multilevel regression analyses were performed. By using a panel approach – that is, each recorded wave during the union serves as a separate observation – joint lifestyles and their different dimensions were evaluated over union types.

Second, the relation between joint lifestyles and the risk of union dissolution was modeled using a longitudinal approach. The use of the NKPS data introduced two potential sources of bias: right-censoring and left truncation. Right-censoring – that is, the fact that for unions that were still intact at the end of observation we cannot assess whether and when dissolution took place – would pose a problem especially if those at higher risk of union dissolution were more likely to drop out. In addition, the data is left-truncated. Ideally one would follow unions from their start when analyzing the determinants of their dissolution. Unfortunately, the NKPS observes unions for a limited amount of time, starting at a given moment in their duration, which in most cases is not the start of the union. To deal with both problems a conditional likelihood approach (Guo 1993) was adopted: The risk of union dissolution was modeled for the observed time in an event-history model, while taking into account the pre-observational union duration.

Following this approach, the data was transformed to a person-period file, which in this case means that each row represents an observed calendar year of a union. Subsequently, Cox proportional hazard models were estimated. Even though Cox models are most commonly applied to continuous-time data in contrast to the discrete-time data analyzed here, this method was adopted for two reasons. First, the Cox model has the advantage that it does not impose a fixed baseline risk but leaves it unspecified. Given our interest in the relative risk of couples having certain characteristics rather than the absolute risk, this approach is particularly suitable. Second, the discrete-time structure is the result of measurement: Union dissolution can occur at any time during the year and is thus not inherently discrete, but we measured only the year it occurred.

The proportional-hazard assumption was tested based on the Schoenfeld residuals (Schoenfeld 1982) and was found not to be violated. The Efron method (Efron 1977) was applied to account for the occurrence of ties (multiple unions in the data being dissolved at the same time point as the result of discrete measurement in years). Additionally, the standard errors of the parameters were corrected for the nesting of unions within individuals. Within this framework, the main effect of joint lifestyles on the risk of union dissolution was modeled, followed by the interaction between joint lifestyles and union type.

## **4. Results**

### **4.1 Joint lifestyles**

Table 2 presents the results of the multilevel regression on joint lifestyles. The intraclass correlations (calculated from the intercept-only model, not displayed) indicate that within respondents the correlation between observations of joint lifestyles is 0.18, and within unions this correlation is 0.56. This indicates that joint lifestyles vary considerably between unions of the same person. Yet as only 34 respondents are reporting on multiple unions, the intraclass correlation on the level of the union is more meaningful, as it shows that, within couples, lifestyles are relatively stable over time.

**Table 2: Multilevel regression model of joint lifestyles**

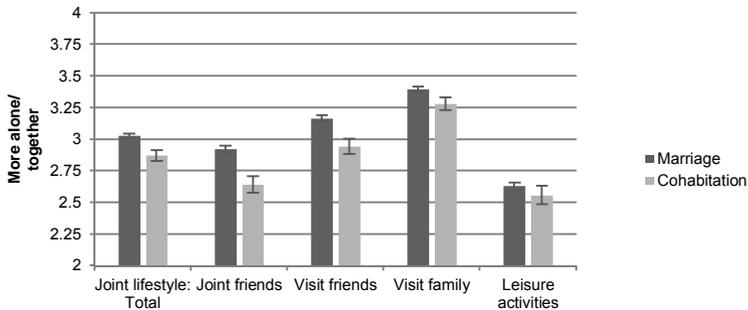
Variable	Model 1a		Model 2a		Model 2b	
	B	SE	B	SE	B	SE
Cohabitation (ref. marriage)	-0.245***	0.021	-0.155***	0.023		
Union type (vs. direct marriage)						
Marriage after cohabitation					-0.039 <sup>ab</sup>	0.021
Cohabitation with marriage intention					-0.154*** <sup>c</sup>	0.033
Cohabitation w/o marriage intention					-0.216*** <sup>c</sup>	0.032
<b>Control variables</b>						
Education of female partner (vs. low)						
Middle			-0.056*	0.022	-0.054*	0.022
High			-0.121***	0.025	-0.116***	0.025
Education of male partner (vs. low)						
Middle			0.017	0.022	0.017	0.022
High			-0.053*	0.023	-0.053*	0.023
Work of female partner (vs. no work)						
Part-time			0.028	0.016	0.031*	0.016
Full-time			0.053*	0.023	0.052*	0.023
Work of male partner (vs. no work)						
Part-time			-0.003	0.023	<0.001	0.023
Full-time			0.033	0.020	0.035	0.020
Union duration			0.009***	0.001	0.008***	0.001
Age of female partner at start of union			<0.001	0.001	<0.001	0.001
Age of youngest child (vs. childless)						
< 5 years			-0.082**	0.024	-0.074**	0.024
5–12 years			-0.113***	0.026	-0.109***	0.026
13–18 years			-0.130***	0.031	-0.132***	0.030
> 18 years			-0.100***	0.034	-0.112***	0.035
Anchor female (vs. male)			-0.274***	0.017	-0.273***	0.017
<b>Model parameters</b>						
Constant	3.039***	0.009	3.118***	0.062	3.117***	0.064
Variance (individual level) <sup>d</sup>	<0.001***	<0.001	<0.001***	<0.001	<0.001***	<0.001
Variance (union level) <sup>e</sup>	0.233***	0.068	0.199***	0.006	0.198***	0.006
Variance (residual)	0.193***	0.003	0.192***	0.003	0.191***	0.003
Log likelihood	-9,317.118		-9,044.211		-9,040.537	
Deviance	18,634.236		18,088.422		18,081.075	
Difference in deviance <sup>f</sup> (df)	139.256***	(1)	545.814***	(15)		
Number of panel observations	10,727					
Number of unions	4,255					
Number of respondents	4,221					

Notes: <sup>a</sup> Significantly different from cohabitation without marriage intention ( $p < .01$ ). <sup>b</sup> Significantly different from cohabitation with marriage intention ( $p < 0.01$ ). <sup>c</sup> Significantly different from marriage after cohabitation ( $p < .01$ ). <sup>d</sup> Intraclass correlation individual level (as estimated in intercept-only model): 0.18. <sup>e</sup> Intraclass correlation union level (as estimated in intercept-only model): .56. <sup>f</sup> For Models 1a and 1b: relative to intercept-only model; for Models 2a and 2b: relative to Models 1a and 1b respectively. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

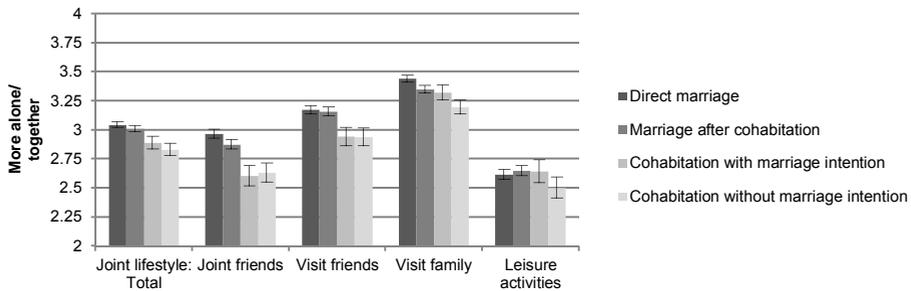
Cohabitation was first added to the model (Model 1) to see what the absolute mean differences between union types are. This leads to a significant decline in model deviance (in comparison to the intercept-only model) and, thus, an improvement in fit. We see that cohabiting couples have more separate lifestyles than married couples. They score 0.245 lower on the scale of joint lifestyles, which is almost half its standard deviation. To account for differences in the composition of the groups, the control variables were added to the model (Model 2a, Table 2). This leads to a significant improvement in model fit and reduces the difference between married and cohabiting

couples to 0.155. For ease of interpretation, we turn to the visualization of Model 2a in Figure 1a, which displays the predictive marginal means of the scale of joint lifestyles per union type. To gain more insight into the different dimensions of joint lifestyles, it shows the means of the indicators separately as well.

**Figure 1a: Predictive marginal means<sup>1</sup> of joint lifestyles per union type (dichotomy)**



**Figure 1b: Predictive marginal means<sup>2</sup> of joint lifestyles per union type (fourfold typology)**



Notes: Marginal means based on data at panel level: 10,727 observations nested in 4,255 unions, by estimation of multilevel regression models. <sup>1</sup> Results for total scale as estimated in Model 2a (Table 2), separate items estimated in similar models (not in table). <sup>2</sup> Results for total scale as estimated in Model 2b (Table 2), separate items estimated in similar models (not in table).

Overall, it seems that couples have relatively joint lifestyles: The mean approaches value 3, which corresponds to the category “More jointly/together.” Furthermore, couples engage more separately in leisure activities than in all other, more social, activities. Family visits especially are often made together. These findings are in line

with earlier studies into couples' lifestyles (Kalmijn and Bernasco 2001; Voorpostel, van der Lippe, and Gershuny 2009). With regard to the differences between union types, we see that in all areas except for leisure activities married couples engage more jointly than cohabiting couples.

Moreover, the effects of the covariates are in line with the results of Kalmijn and Bernasco (2001). The more highly the partners are educated, especially the female partner, the more separate their lifestyles. Couples in which the female partner works have slightly more joint lifestyles than couples in which the female partner does not work, whereas working hours of the male partner have no significant effect. Union duration has a positive effect: The extent to which couples have joint lifestyles increases with duration of the union. In contrast to Kalmijn and Bernasco (2001), we found no support for nonlinearity of this effect. Having children, especially when the youngest child is aged between 13 and 18, is associated with more separate lifestyles. Lastly, female respondents report more separate lifestyles than male respondents. Stepwise inclusion of the control variables showed that of the difference between union types as estimated in Model 1, 12% is explained by union duration and another 30% by the other control variables.

In Model 2b, we estimated the full model (Model 2a) with the fourfold union typology instead of the dichotomy. Again, for interpretation of the differences between union types, we turn to the visualization of the model (Figure 1b). Married couples (both directly married and married after cohabitation) have significantly more joint lifestyles than cohabiting couples (both with and without marriage intentions), whereas the types within cohabitation and marriage do not significantly differ. The difference between the extremes – that is, direct marriage and cohabitation without marriage intention – is 0.216. With regard to the separate items of joint lifestyles, the differences between union types reveal the same pattern, except for visiting family, in which cohabiters with marriage intentions do not differ significantly from both types of married couples, and leisure activities, in which there are no significant differences between the union types.

To summarize, the results support the expectation that joint lifestyles differ between married and cohabiting couples. Moreover, the main difference seems to lie between marriage and cohabitation, rather than within.

## **4.2 Risk of union dissolution**

Table 3 presents the results of the Cox proportional hazard model predicting the risk of union dissolution. The estimates do not show how the risk of union dissolution depends on time. Further analysis (not shown) reveals that after an increase in the first 5 years,

the risk decreases strongly between the 5<sup>th</sup> and 10<sup>th</sup> years, and then starts declining less strongly to stabilize around the 35<sup>th</sup> year. This pattern is in line with the idea of the first years of the union being the ‘weeding’ years: The poor matches are weeded out, resulting in a surviving group of high-quality matches (Liefbroer and Dourleijn 2006).

**Table 3: Cox proportional hazard model of union dissolution**

Variable	Model 1a		Model 2a		Model 1b		Model 2b	
	HR	SE	HR	SE	HR	SE	HR	SE
Joint lifestyles	0.579***	0.049	0.578***	0.066	0.577***	0.049	0.440***	0.078
Cohabitation (ref. marriage)	1.972***	0.278	1.956	0.910				
Cohabitation*lifestyles			1.003	0.169				
Union type (vs. direct marriage)								
Marriage after cohabitation					0.989 <sup>ab</sup>	0.177	0.299	0.191
Cohabitation with marriage intention					2.239*** <sup>c</sup>	0.494	1.022	0.701
Cohabitation w/o marriage intention					1.785*** <sup>c</sup>	0.380	0.942	0.626
Union type*lifestyles (vs. direct mar.)								
Marriage after cohabitation *lifestyles							1.556	0.353
Cohabitation with marriage int.*lifestyles							1.345	0.335
Cohabitation w/o marriage int.*lifestyles							1.270	0.317
<b>Control variables</b>								
Education of female partner (vs. low)								
Middle	1.113	0.190	1.113	0.191	1.109	0.190	1.119	0.193
High	0.922	0.183	0.922	0.183	0.920	0.183	0.939	0.189
Education of male partner (vs. low)								
Middle	1.199	0.191	1.199	0.196	1.195	0.195	1.183	0.194
High	0.771	0.139	0.771	0.139	0.770	0.138	0.763	0.137
Work of female partner (vs. no work)								
Part-time	1.166	0.187	1.166	0.187	1.175	0.189	1.176	0.190
Full-time	1.103	0.217	1.104	0.218	1.128	0.223	1.120	0.222
Work of male partner (vs. no work)								
Part-time	0.677	0.160	0.677	0.160	0.668	0.160	0.671	0.161
Full-time	0.546*	0.111	0.546**	0.111	0.544**	0.111	0.548**	0.112
Age of female partner at start of union	0.974**	0.008	0.974**	0.008	0.977**	0.009	0.977**	0.009
Age of youngest child (vs. childless)								
< 5 years	0.427***	0.082	0.428***	0.082	0.432***	0.083	0.436***	0.084
5–12 years	0.727	0.154	0.727	0.154	0.728	0.155	0.734	0.156
13–18 years	1.029	0.287	1.029	0.288	1.025	0.290	1.027	0.291
> 18 years	0.534	0.220	0.534	0.220	0.527	0.217	0.536	0.222
Parents of female partner divorced	1.684***	0.249	1.685***	0.249	1.693***	0.252	1.700***	0.253
Parents of male partner divorced	1.443*	0.223	1.444*	0.224	1.444*	0.225	1.445*	0.225
Anchor female (vs. male)	1.081	0.139	1.081	0.139	1.086	0.140	1.082	0.139
<b>Model parameter</b>								
Log pseudolikelihood	–1,788.866		–1,788.865		–1,788.176		–1,786.354	
Deviance	3,577.731		3,577.732		3,576.352		3,572.709	
Difference in deviance <sup>d</sup> (df)	67.139***	(2)	< .001	(1)	34.260***	(4)	1.821	(3)
Number of union years	32,241							
Number of unions	4,255							
Number of respondents	4,221							
Number of union dissolutions	287							

Notes: Standard errors adjusted for nesting of unions in individuals. <sup>a</sup> Significantly different from cohabitation without marriage intention ( $p < .01$ ). <sup>b</sup> Significantly different from cohabitation with marriage intention ( $p < .01$ ). <sup>c</sup> Significantly different from marriage after cohabitation ( $p < .01$ ). <sup>d</sup> For Models 1a and 1b: relative to intercept-only model; for Models 2a and 2b: relative to Models 1a and 1b respectively.  $p < .05$ ,  $p < .01$ ,  $p < .001$ .

Turning to the model estimates, Model 1a includes the main effects of joint lifestyles and cohabitation, as well as the control variables, making it, in terms of model deviance, an improvement on the model with only the control variables. The reported hazard ratios (exponentiated coefficients) should be interpreted in terms of the relative risk: The hazard ratio minus one reflects the proportion of difference in the risk of union dissolution relative to the reference category. The results support the expectation that the more joint the lifestyle, the lower the risk of union dissolution. One unit increase on the scale of joint lifestyles is associated with a decline in risk of 42% ( $0.578-1$ ). Furthermore, the risk of union dissolution for cohabiting couples is about twice the risk for married couples. Estimation of the model with and without joint lifestyles shows that it explains 13% of the difference in risk between cohabiting and married couples.

With regard to the control variables, we see that, in contrast to what one would expect based on previous studies (see Amato and James (2010) for a review), education and working hours hardly affect the risk of union dissolution. Only if the male partner works full-time is the risk of dissolution lower than for couples in which the man does not work at all. The effects of the other control variables correspond to findings of earlier studies on risk of dissolution (Amato and James 2010). The older the female partner was at the start of the union, the lower the risk; couples with young children have a lower risk than couples without children; but having experienced parental divorce increases the risk. Lastly, whether the anchor respondent was male or female does not affect the risk of union dissolution.

In the last step, the interaction between union type and joint lifestyles was added (Model 2a). This did not lead to a significant improvement in model fit, which is reflected by the insignificant interaction terms as well. These findings clearly do not support our expectation: The risks of dissolving a marriage and dissolving cohabitation are equally related to joint lifestyles.

With Models 1b and 2b (Table 3) we examined heterogeneity within marriage and cohabitation. Pairwise comparison of the four union types shows that both types of cohabiters have a significantly higher risk of union dissolution than both types of married couples, on average 100%, whereas no significant differences were found between the types within marriage or cohabitation. Model 2b echoes our findings concerning the dichotomous distinction between marriage and cohabitation, as no significant interactions were found.

A number of additional analyses were performed. First, to see whether the separate dimensions of joint lifestyles affect the risk of union dissolution differently, the models were estimated for each item separately, but no remarkable differences in effect were found. Second, one of the arguments for the relation between joint lifestyles and union dissolution is that couples who spend more time together evaluate their relationship

more positively. To get some insight into the role of this mechanism, perceived relationship quality,<sup>3</sup> as reported by the respondent, was included in Model 2 (Table 3). Unfortunately, the analysis was based on just part of the sample as this variable was assessed only in the (additional) self-completion questionnaire (which suffered from around 8% additional nonresponse). The results show that perceived relationship quality is negatively related to the risk of union dissolution (HR = 0.490,  $p < 0.001$ ). After including this variable, a significant 66% of the effect of joint lifestyles remained, indicating that perceived relationship quality explains about one third of the relation between joint lifestyles and the risk of union dissolution.

## 5. Discussion

This study examined how jointly Dutch couples operate in their leisure time and how this relates to the risk of union dissolution. It is the first to consider both married and cohabiting couples, thereby providing insight into how couples in these different types of unions arrange their life together and how this contributes to the stability of their relationship. By comparing groups within cohabitation (with or without marriage intentions) and marriage (with or without having cohabited), this study took into account the heterogeneity within these groups to further our theoretical understanding of cohabitation vis-à-vis marriage. Using a longitudinal approach, four waves of the NKPS data were analyzed, improving on previous work by using large-scale, recent data and a prospective, more sophisticated measure of joint lifestyles.

We found, first, that married couples seem to operate more jointly in their leisure time than cohabiting couples – about a fourth of a standard deviation. Although we cannot be sure of the precise explanation, this difference suggests that cohabiters value an individual lifestyle to a greater extent than married individuals or that their lower commitment leads to an avoidance of risky investments in the relationship. The differences between cohabiting and married couples were not equally pronounced for all dimensions of joint lifestyles. In line with Kalmijn and Bernasco (2001), we found that cohabiting and married couples engage jointly in leisure activities to the same extent, while married couples report a significantly more joint social life. From the perspective of joint lifestyles as a relation-specific investment, an explanation could be that a joint social network is a riskier investment than shared leisure activities. To illustrate, when ending a relationship to find a new tennis partner is a less severe

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<sup>3</sup> Measured with a mean scale ( $\alpha = 0.95$ ) constructed from the following four questions, which were measured on a five-point Likert scale: “We have a good relationship,” “The relationship with my partner makes me happy,” “Our relationship is strong,” and “The relationship with my partner is very stable.” A higher score on this scale indicates higher perceived relationship quality.

sacrifice to make than disrupting your joint group of friends. An alternative explanation could lie in the expectations of family and friends. Being married signals the permanence of the relationship to friends and family (Waite and Gallagher 2002), who might therefore see contact with the partner as more natural than in the case of cohabitation (Rözer, Mollenhorst, and Völker 2015).

Such outside expectations might also explain why we found little difference in joint lifestyles within marriage and cohabitation along the lines of marriage intentions and premarital cohabitation. Although one could argue that differences in commitment and values are not pronounced enough among subtypes of married and cohabiting couples, previous studies on relationship stability or the economic aspects of couple relationships that rely on similar arguments about differences in commitment and value orientations do find differences within marriage and cohabitation (e.g., Brown and Booth 1996; Poortman and Mills 2012). We may speculate that economic behavior differs from social behavior in that whether or not to become financially dependent is strongly associated with the amount of uncertainty about the relationship or perhaps people's gender norms, leading to heterogeneity within marriage and cohabitation. Social behavior may be approached less rationally or be less dependent on values, but may rather be shaped by what is expected by other people. It is plausible that these normative expectations strongly diverge based on whether couples are married or not (Rözer, Mollenhorst, and Völker 2015), but less so on more nuanced distinctions within these groups, such as whether one intends to marry in the future. Less heterogeneity might therefore be expected for joint lifestyles.

We furthermore found that couples with joint lifestyles were less likely to dissolve their union than those with separate lifestyles. The negative association between a joint lifestyle and the risk of dissolution is relatively strong and in contrast to the effects of 'traditional' predictors, like education and female labor force participation, which were found to have no effect. Our data is relatively recent and the findings for education and women's work are in line with studies showing that for recent cohorts these economic predictors have become less important for union dissolution (Poortman and Kalmijn 2002; Matysiak, Styrc, and Vignoli 2014). The importance of joint lifestyles rather supports the notion that companionship and intimacy have a central role in contemporary couple relationships (Spitze and South 1985; Giddens 1992; Cherlin 2004). Additional analyses showed that part of the effect of joint lifestyles is explained by relationship quality, which supports the idea that couples with a joint lifestyle evaluate their relationship more positively and thus have a more stable union. The unexplained part might imply that, as we suggested in the theory section, joint lifestyles can be considered a relation-specific investment as well as a reduction in opportunities to meet alternative partners. Yet conclusions on the causal order of these relations should be drawn with caution. For example, it might be that partners with a stable

relationship perceive their relationship to be good and thus more often seek each other's company.

Although differences in values and commitment would predict a difference in the importance of joint lifestyles for union dissolution, having a joint lifestyle was found to bind married and cohabiting couples together equally strongly (as indicated by the absence of an interaction effect). This finding is contrary to previous findings suggesting that marriage and cohabitation differ in their economic foundations (Brines and Joyner 1999; Kalmijn, Loeve and Manting 2007) and hints at the possibly unique nature of the social cement of relationships: All couples, regardless of their value orientations or the extent to which other ties keep them together, may need to spend time together in order to keep a healthy, stable relationship.

As with most studies on divorce that make use of prospective relationship reports, we need to acknowledge that the survey design, tracking couples at a given point in their relationship rather than at its start, means that the sample is selective in favor of stable unions of long duration. This is reflected by the fact that 92% of the unions were already formed before the first interview. Since the short, less stable unions were underrepresented, our estimate of how joint couples' lifestyles are might be an overestimation of the population average. At the same time, this selection comes with an advantage: The fact that the most unstable unions (as part of the very heterogeneous group of cohabiters) have been weeded out implies that our sample mainly compares devoted cohabitation to marriage. Consequently, our comparison is a conservative one.

Furthermore, only the data provided by the anchor respondent was analyzed, given the small and selective sample that included both partners' reports. The fact that female respondents reported significantly more separate lifestyles indicates that, though we considered both joint lifestyles and the risk of union dissolution a union characteristic, it matters who answered the questions. Furthermore, we measured the joint share of friends and leisure time relative to the respondent's total number of friends and leisure time. This means that it is unknown how joint this couple's lifestyle is relative to the partner's total number of friends and amount of time. It is uncertain whether and how this simplification could have influenced the results. Looking into unbalanced reports – for example, one partner has only mutual friends whereas the other partner has a group of friends in addition to mutual ones – and how this affects union stability will be interesting for future research.

To summarize, this study has demonstrated that even in the Netherlands, where marriage is more and more commonly preceded or replaced by cohabitation, the marital vow still divides couples in how they arrange their lives together. At the same time, joint lifestyles seem to play an equally important role in keeping cohabiting and married couples together, suggesting that married and cohabiting couples do not differ in their social foundations.

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