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Social isolation as a consequence of transitions in partner relationships: How formations and endings of partner relationships affect the risk of social disconnectedness

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Abstract

Objective: The study examines whether the risk of social isolation is affected by a union formation, marriage and by relationship endings.

Background: Social isolation is a broadly discussed social problem but little is known about how social isolation emerges. As regards the role of partner relationships, previous research has yielded mixed results on whether there are isolating effects of marriage, separations or widowhood.

Method: We use longitudinal data deriving from the German Socio-economic Panel to analyse the impact of transitions in partner relationships on different manifestations of social isolation (disconnectedness from friends and relatives, non-participation in civic associations). Analyses on the impact of union formation and marriage are based on information on 11,359 persons. Analyses on the impact of relationship endings are based on information on 30,730 persons.

Results: Union formation and marriage are found to have little effect in terms of promoting social isolation. Endings of partner relationships, by contrast, entail an increased risk of being isolated at the same time from friendships, relatives and civil associations.

Conclusion: Taken together, the findings suggest that those who had limited their social interaction to the spouse or partner often fail to become re-integrated when the relationship had ended. It can be assumed that this is a common pathway into social isolation.

Key words: marriage, partner relationships, divorce, loneliness, dyadic withdrawal, social isolation

1. Introduction

Modernization has often been described as a process leading to profound transformation of marriages and partner relationships, local communities and social connectedness. Classical theories on modernization view the modern marital dyad as a self-reliant unit resulting in less compelling links with the surrounding kinship network (Durkheim 1921; Parsons 1955). Furthermore, a decline in the stability of marriage and intimate relationships is seen to be a consequence of progressing modernization (e. g. Beck 1986; Giddens 1991). This is accompanied by perceptions of a decline in community life (Putnam 2000) and an increasing risk of social isolation in modern societies (for an overview see Machielse 2006: 22-24; Parigi & Henson 2014: 156-158). In light of these arguments, it can be assumed that endings of marital or quasi-marital unions might be a common cause of social isolation. In unions disconnected from surrounding networks and in the presence of a non-integrative social environment, individuals experiencing their dyadic relationship to end may be at a high risk to become socially isolated.

The mentioned theses are controversial, however, and have attracted considerable criticism. The thesis of the modified extended family (Litwak 1960) and the thesis of a growing importance of inter-generational bonds (Bengston 2001) challenge the assumption of isolated marital dyads or isolated nuclear families. More generally, perceptions of disappearing local communities are challenged by the viewpoint that there is a shift from traditional to liberated communities rather than a downfall of social life (Wellman 1979).

Research into marriage in modern societies differs in its conclusions, with some studies finding that marriage has an isolating effect and others identifying an integrating effect. Likewise, some studies find a reducing effect of divorce on social connectedness while other authors find it liberating and conducive to social life. The study presented here contributes to these debates by considering the impact of formations and endings of partner relationships on social isolation, by drawing on longitudinal data, and by applying fixed-effects regression to attenuate biases evoked by unobserved confounders.

Social isolation is commonly understood as the absence or as a lack of social contact or social relations (e.g. Zavaleta et al. 2016; Holt-Lunstad et al. 2015; Biordi and Nicholson 2013; Hawthorne 2006; Delisle 1988). Accordingly, social isolation is conceptualized throughout this paper as a binary variable and defined as the absence of social connectedness. This study hence contrasts with previous studies on the social consequences of formations and endings of couple relationships, which tended to place more of an emphasis on gradual shifts in network size or in social participation. Becoming socially isolated in terms of being without any social connections is substantially different from gradual shifts in network size or frequency of social contacts. For instance, when a relationships ends because one of the partners deceased, the bereaved might withdraw from large social networks, scale back social activities, and reduce participation in associations but at the same time keep close contact to their inner circle of friends. In this case, there is a downward shift in network size but there is no transition into social isolation. Moreover, becoming socially isolated has more serious implications. It is rather social isolation in terms of a complete absence of social connections and not so much any gradual shift in the number of social relationships or in

the frequency of social activities what entails severe deteriorations of one's living conditions. A huge body of research shows a negative impact of the absence of social ties on health and well-being (for an overview see Courtin & Knapp 2014). On these grounds, the study at hand addresses the question of whether transitions in partner relationships can raise the risk of becoming disconnected from any social connections such as friendship networks, kinship networks, or civil associations. Its overreaching objective is to gain insight in the causes of social isolation.

For a more detailed examination into the social consequences of transitions in partner relationships, this study further distinguishes between different components of social isolation: living alone, being disconnected from friends and relatives, and non-participation in associational life.

2. Hypotheses, conceptualization of social isolation, and previous research

2.1 Hypotheses

Union formation, marriage and divorce have often been hypothesized to affect social connectedness. Related arguments are considered and applied to the issue of social isolation in the following.

Formation of a partner relationship cannot of course be related to social isolation in a strict sense. After all, if social isolation is understood as the absence of any personal ties, then persons who have a partner relationship cannot, by definition, be isolated. However, marital and quasi-marital unions have often been described as isolating in the sense that a partner relationship leads to a "dyadic withdrawal" (e.g. Johnson & Leslie 1983; Slater 1963). According to this postulate, those having started a partner relationship withdraw from social connections beyond the dyadic relationship. This has been attributed to a change in demand for social connectedness (Kalmijn 2012: 179), in that the partner takes over functions usually accomplished by friendships or relatives.

The opposite effect is equally conceivable: Union formation might lead to a growth in a person's social connectedness as the partner's relatives and friends join one's network (Wrzus et al. 2012: 55). Moreover, the partner's relatives and friends might provide access to further acquaintances or associations.

Taking this into account, there are two contrary assumptions regarding the impact of union formation on the threat of social isolation. On the one hand, union formation might often entail a dyadic withdrawal and therefore be conductive to isolation. In the following, this will be referred to as the "dyadic-withdrawal hypothesis". On the other hand, union formation comes along with getting to know the new partner's relatives and friends, which might have a reductive impact on one's risk to become socially isolated. Because the new partner is hereby assumed to act as a bridge to further social ties, this will be referred to in the following as the "bridging-effect hypothesis".

Endings of partner relationships are likewise hypothesized to have both positive and negative effects on social connectedness. On the one hand, it is assumed that endings of

partner relationships are related positively to social connectedness. This suggestion is sometimes referred to as the "liberation hypothesis" (Kalmijn & Broese van Groenou 2015: 455). There are various rationales for this assumption: Marriage may, for instance, be regarded as a restrictive institution that obstructs access to further social connections. According to this way of thinking, the end of a marriage is literally seen as a liberation that refreshes social life. Other explanations are based on the dyadic withdrawal theory referred to above: Just as the demand for further social ties is thought to diminish after a union formation, the loss of a partner is assumed to restore this demand (Kalmijn 2012: 180; Kalmijn & Broese van Groenou 2015: 456). Losing the benefits of a partner relationship will presumably intensify the need for friendships or for close contact with relatives (e.g. Ha 2008: 307-308; Utz et al. 2002: 523). Additionally, it is conceivable that the need for self-fulfillment through social roles might induce a person to replace the lost conjugal role with new social roles. Another rationale for the liberation hypothesis emphasizes that the loss of a partner relationship is a critical moment in life that comes along with an intense need for companionship (e.g. Kalmijn 2012: 180; Miller et al. 1998; Utz et al. 2002: 523).

On the other hand, there are two possible ways in which endings of partner relationships may enhance the risk of social isolation. First, those experiencing the loss of a partner relationship may have already previously become disconnected from further social ties. If this cannot be reversed, then the loss of the dyad is ipso facto a transition into a situation of encompassing social isolation. Kalmijn (2012) argues that not everyone might be able to build up new connections, or to re-build old ones, after the end of a partner relationship. While the demand for social connectedness might increase, opportunities might well be limited. The absence of connectedness established during the relationship will then persist after the relationship has ended. This trajectory is referred to in the following as the "continued-isolation trajectory".

A second possible trajectory is the "induced-isolation trajectory": it is also conceivable that someone is well integrated before the end of his or her partner relationship but goes on to become isolated in the aftermath. In this case, the loss of the partner is accompanied or followed by the loss of other social ties. One postulated reason applies to separations as well as partner loss due to the death of the partner: former social activities that hinged on the ex-partner may be discontinued when the relationship ends. Another possible reason applies to separations but not to bereavement: when separation involves a conflict between the two ex-partners, the couple's joint network may be lost to one of the twosome (Kalmijn & Broese van Groenou 2003: 458-459; Terhell et al. 2004: 720-721). Members of the joint network might side with one of the partners, leading to the other partner being excluded. Moreover, even if the separation was peaceful, those who used to be friends with both ex-partners might keep up the friendship with only one of them because of time constraints. A third possible reason applies to bereavement rather than separations: mourning often implies a withdrawal from social activities (Zettel & Rook 2004) and therefore might also entail a loss of social connections (Wrzus et al. 2012: 55). Hence, endings of partner relationships can boost the risk of social isolation even if both partners were well integrated before.

2.2 Conceptualization of social isolation

Social isolation is understood in this study as a binary variable referring to whether or not a person has social contact (of a certain kind or of any kind – see below). Above discussed assumptions on union formation refer to isolation as the absence of social connections beyond the dyadic union. By contrast, assumptions on endings of relationships refer to isolation in terms of the absence of a partner as well as the absence of other social connections. A conceptualization of social isolation capable of capturing such different manifestations of social isolation has been used in studies on the social consequences of poverty and unemployment (Canduela et al. 2015; Gallie et al. 2003). These studies distinguish between three spheres of social connectedness:

- the primary sphere, representing social ties within the nuclear family including partner relationships
- the secondary sphere, involving personal ties with friends and relatives (informal networks)
- the tertiary sphere, relating to voluntary participation in associations or organizations (formal networks)

Adopting this model allows to distinguish between disparate manifestations of social isolation. Aforementioned hypotheses on the impact of union formations relate to absent social connectedness beyond the dyadic union. Hence, these assumptions relate to social isolation in terms of missing contact in the secondary and tertiary sphere, but not in the primary sphere. By contrast, hypotheses on the impact of relationship endings refer to social isolation as the absence of contact in all three social spheres. Figure 1 shows how the hypotheses are related to the three spheres of social connectedness.

Figure 1:   Schematic representation of hypotheses

A) Hypotheses on the impact of union formation

Dyadic-withdrawal trajectory:

Existing secondary-sphere or tertiary-sphere contact	→	Relationship begins	→	Absence of social contact in the secondary sphere and tertiary sphere
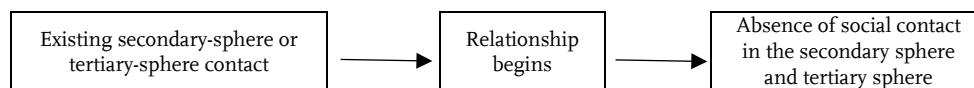
Bridging-effect trajectory:

Absence of social contact in the secondary sphere and tertiary sphere	→	Relationship begins	→	Secondary-sphere or tertiary-sphere contact

Figure 1:   Schematic representation of hypotheses (continued)

B) Hypotheses on the impact of relationship endings

Liberation trajectory:

| Absence of social contact in the secondary sphere and tertiary sphere | → | Relationship ends | → | Secondary-sphere or tertiary-sphere contact |

Continued-isolation trajectory:

| Absence of social contact in the secondary sphere and tertiary sphere | → | Relationship ends | → | Absent contact in all three social spheres |

Induced-isolation trajectory:

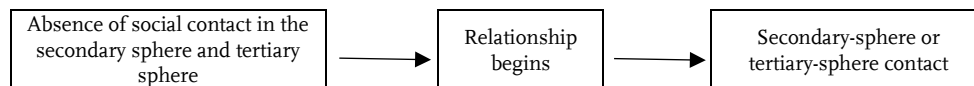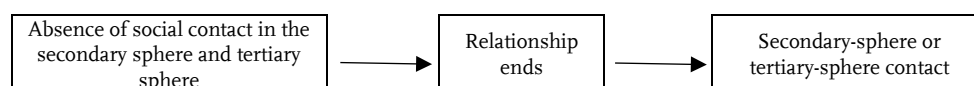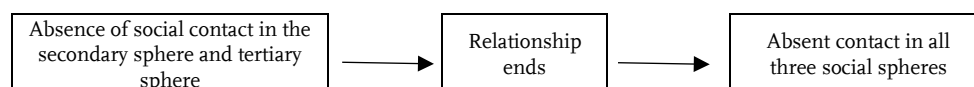| Existing secondary-sphere or tertiary-sphere contact | → | Relationship ends | → | Absent contact in all three social spheres |
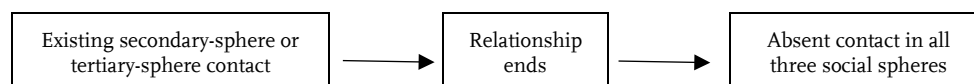
2.3 Previous research

Up until now, research into the social consequences of partner relationships does not relate to social isolation as conceptualized above. Instead, it relates to gradual scales of social participation (e.g. Kalmijn 2012; Utz et al. 2002), network size (e.g. Terhell et al. 2004; Wagner & Wolf 2001), received support (e.g. Ha 2008) or subjective feelings of loneliness (e.g. Ben-Zur 2012; Dykstra et al. 2005).

Some studies suggest that marrieds have smaller networks, meet less often with friends and relatives, and participate less often in associations than non-marrieds (Gillespie et al. 2014; Sarkisian & Gerstel 2015; Munch et al. 1997). Other studies support the view that marrieds have larger networks than those who are not married (see the meta-analysis by Wrzus et al. 2012: 63). One reason for these mixed results might be that these studies apply cross-sectional data and therefore are susceptible to biases evoked by unrecognized confounders. A noteworthy exception is a study by Kalmijn (2012). By applying the Swiss Household Panel and using fixed-effects regression methods, the study shows that contact with relatives becomes more frequent after union formation while contact with friends declines.

Longitudinal research designs are more common in studies on implications of divorce and widowhood. Wrzus and colleagues (2012) show that longitudinal studies consistently found a reducing effect of divorce on the size of the kinship network whereas other network types are not affected. As regards partner loss by death, longitudinal research has shown that widowhood has a positive impact on contact with friends and relatives (Kalmijn 2012; Wrzus et al. 2012).

The study at hand asks whether similar or different effects can be observed with regard to social isolation. Union formation might reduce the frequency of contact with friends but it is unclear whether this also increases the risk of losing all friendship ties.

Likewise, separations may entail smaller sizes of certain network types but it is unclear whether separations also lead to a higher risk of ending up without any social contacts at all.

3.   Data and methods

3.1 Data

Data are drawn from the German Socio-economic Panel (SOEP, see Goebel et al. 2018). Indicators for social isolation (see below) are included in waves 1992, 1994, 1996, 1997, 1999, 2001, 2005, 2007, 2009, 2011, and 2015. These 11 waves provide data on 62,141 respondents, but not all of them participated in more than one of the above-named SOEP waves. 23,723 respondents participated in only one wave. That is either because they dropped out of the panel after their first interview (14,783 cases) or because they were interviewed only in the last wave (8,940 cases). Another 360 cases had to be removed because of item-nonresponse. The remaining sample comprises 38,058 respondents who have participated in at least two waves and therefore can be included in longitudinal analyses.

Whereas the rate of item-nonresponse is low, the sample might be biased due to the large number of 14,783 (23.79%) respondents who dropped out of the panel before they could be interviewed for a second time about the issue of social isolation. However, as shown in Table A1 (Appendix), key variables are distributed very similarly among drop-out cases and remaining cases. We therefore expect that results will not be seriously biased due to the large number of drop-outs.

Analyses presented below are based on two sub-samples (see Table 1). Sub-sample 1 was set up to study impacts of union formation, of living together with a partner in a joint household, and marriage. It includes only respondents who were without a partner relationship in at least one of the applied SOEP waves and comprises 6,429 female and 4,930 male respondents. The total number of single observations in Sub-sample 1 is 43,922 (with 24,871 belonging to female and 19,051 to male respondents). For each respondent, time series in Sub-sample 1 always start with a period of being single and discontinue when a subsequently formed partner relationship has ended. If a person starts living together with a partner, than she or he is at the same time still classified as being in a relationship. If a person becomes married, it depends on whether the spouses have a joint household: if the spouses live together, the person is at the same time classified as living together with a partner. If not, then he or she is classified as married and as having a partner relationship but not as living together with a partner.

Table 1: Description of samples

| | Sub-sample 1 (for studying effects of union formation) | | | | Sub-sample 2 (for studying effects of relationship endings) | | | |
| | Men N=4930 | | Women N=6429 | | Men N=14893 | | Women N=15837 | |
	Obser-vation	%	Obser-vation	%	Obser-vation	%	Obser-vation	%
Total	19051	100.0	24871	100.0	71723	100.0	77421	100.0
No primary-sphere contact (living alone, no partner)	7365	38.6	14787	59.5	3428	4.8	6148	7.9
No secondary-sphere contact (meetings with friends or relatives less than once per month)	2729	14.3	4491	18.1	14591	20.3	14258	18.4
No tertiary-sphere contact (non-participation in clubs or civil organizations)	9283	48.7	11237	45.2	29524	41.2	31931	41.2
Isolation from the secondary and tertiary sphere	1697	8.9	2653	10.7	7533	10.5	7590	9.8
Isolation from all three social spheres	920	4.9	1881	7.6	425	0.6	775	1.0
Started a partner relationship	5684	29.8	5771	23.2				
Started living together with a partner	2157	11.3	2228	9.0				
Married	1637	8.6	1705	6.9				
Separation of a non-cohabiting relationship					6714	9.4	7676	9.9
Separation of a live-in relationship					2282	3.2	2957	3.8
Marriage separation					3510	4.9	4312	5.6
Partner deceased					1280	1.8	3315	4.3

Data source: German Socio-economic Panel, waves 1992, 1994, 1996, 1997, 1999, 2001, 2005, 2007, 2009, 2011, and 2015

Sub-sample 2 was set up to study the impact of relationship endings. Accordingly, it includes only respondents who were observed as being in a partner relationship in at least one of the 11 panel waves. Time series always start with a period at which the respective respondent is in a partner relationship. Sub-sample 2 involves 15,837 female and 14,893 male respondents. The total number of observations is 149,144.

Respondents are defined as being without primary-sphere contact if they live alone – or only with under-age children – and are without a partner relationship.[1] Secondary-sphere contact is identified by using information on contact with friends, relatives, or neighbors. Respondents were asked how often they meet with and how often they help out friends, relatives, or neighbors. The resulting indicator classifies those as being without secondary-sphere contact who meet with or give help to friends, relatives or

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1   Persons who live together with children but not with any other adult person are categorized as living alone. When there also is no (non-cohabitating) partner, then these persons are also categorized as being without contact in the primary sphere. The reason for this decision is that otherwise lone parents could by definition never be socially isolated, not even if they are without any further social contact as regards friends, relatives, or associations.

neighbors less than once per month. Tertiary-sphere contact was measured using information on involvement in associations, political organizations, and church groups. Never engaging in any of these activities is classified as absent contact in the tertiary sphere.

Control variables include health, employment status, financial strain, duration of residence, living with children, age, and survey year. Health is measured by employing a 5-point scale for self-assessed health (ranging from 1 for very good health to 5 for very bad health). The scale was transferred into a binary variable ("health problems") with a score of 1 for those reporting bad or very bad health and 0 for all other dispositions. Employment status is captured by a set of dummy variables indicating whether the respondent is in full-time work, part-time work, not working, registered as unemployed, or retired. Financial strain is measured by a dummy variable which is 1 for those who say they are seriously worried about their own financial situation and 0 for those reporting they are not or only a little bit worried. Another five variables investigate the number of co-resident children of different ages.

Previous studies found that the correlations between employment and social isolation and between poverty and social isolation are different for women and men (Eckhard 2018), which might also pertain to the effect of children in the household. Estimates for employment status, financial strain, and co-resident children are therefore calculated separately for women and men.[2]

Another dummy variable ("relocated") is used to account for short durations of residence. This variable identifies those who have relocated within the last three years. The required information is from two sources: the reported year of moving into the current dwelling and changes in the SOEP household-identification number.[3] Age and survey year are addressed by using sets of dummy variables.[4]

Additional analyses address differences between East and West Germany as well as between residents with a migration background and the German majority. To identify respondents with a migration background, analyses include a variable made available by the SOEP team which assembles information on respondent's country of birth and on respondent's parents. Respondents are categorized as having a migration background if they are born outside Germany or have at least one parent who is either foreign-born or has a foreign citizenship.

3.2 Method

Estimates are calculated by using fixed-effects regression. They are therefore not subject to bias due to time-constant unobserved heterogeneity (Allison 2005) and are adjusted for all attributes that do not change during the observed period of time. Fixed-effects estimates

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2   Technically, this is done by fitting interaction terms into the regression models.

3   Respondents who moved into another household continue to be interviewed in subsequent panel waves, if possible. In case of relocation, the person-identification number remains the same but the household-identification number changes.

4   Dummy variables for age are divided into 5-years age groups. The dummy variables for survey year are 1992/1994, 1996/1997, 1999/2001, 2005/2007, and 2009/2011/2015.

for categorical data can be calculated by using either conditional-logit regression (Chamberlaine 1981) or a linear-probability model with fixed effects. Results of fixed-effects linear-probability models are presented in the following. However, all key results of this study were double-checked for robustness by using conditional-logit models in addition.

4. Results

4.1 Social implications of union formation, living together with a partner, and marriage

Table 2 shows effects of union formation, cohabitation, and marriage on different categories of social disconnectedness. Columns 1 and 2 refer to disconnectedness from secondary-sphere contacts (rare contact to friends and relatives), Columns 3 and 4 to the absence of tertiary-sphere contact (non-participation in clubs or civil organizations), and Columns 5 and 6 to isolation from both social spheres. For assessing the strength of the effects, it has to be considered that the three outcome variables are differently distributed (see Table 1). As the overall share of disconnectedness form secondary-sphere contact is rather low, even small coefficients of 2 to 3 percentage points are to be considered noteworthy in Columns 3 and 4. The same applies to Columns 6 and 7 which refer to isolation from both social spheres. By contrast, absence of tertiary-sphere contact is generally much more widespread. In Columns 4 and 5, coefficients lower than 5 percentage points have therefore to be regarded as rather weak effects.

Estimates are adjusted for health, age, survey year, employment status, financial strain, relocation and, with the exception of Columns 2, 4, and 6, also for co-resident children. Coefficients of all control variables except age groups are shown in Tables A2-A4 in the Appendix. Coefficients for the 5-years age groups are displayed in Figure A1 in the Appendix.

As regards women, the table shows that union formation diminishes the probability of being without contact to friends and relatives (Column 1) and slightly raises non-participation in civil organizations (Column 3). However, the reducing impact on contact to friends and relatives appears to be reversed when the couple starts living together. This becomes evident from the enhancing effect of living together with a partner, which exceeds the reducing impact of union formation. Moreover, the slight enhancing effect of union formation on non-attendance in civil organizations is compensated after marriage: there is a negative effect of marriage of approximately the same size as the enhancing effect of union formation. Finally, there are no significant effects on women's risk of isolation from both spheres (Column 5). This means that onsets and advancement of couple relationships do not affect the risk to become socially isolated in terms of being without social contact to friends, relatives, and civil associations.

Table 2: Effects of partner relationships and children on social isolation (linear-probability models with fixed effects, percentage points)

	Secondary sphere: disconnectedness from friends and relatives		Tertiary sphere: non-participation in clubs and civil organizations		Isolation from both spheres	
	(1)	(2)	(3)	(4)	(5)	(6)
Women:						
Started a partner relationship	-1.26 *	-1.49 *	3.88 **	4.32 ***	-0.84	-0.93
Started living together	3.57 **	3.90 **	0.95	1.03	1.16	1.40
Got married	0.57	1.19	-4.28 *	-4.28 *	0.16	0.54
Men:						
Started a partner relationship	0.57	0.30	-0.64	-0.11	0.77	0.63
Started living together	0.71	1.15	2.81	2.89	-0.16	0.17
Got married	2.35	3.44 *	-0.56	-0.15	0.34	1.15
Women						
Children[1], 0-1 years	7.69 ***		3.07		6.34 ***	
Children, 2-4 years	0.39		0.20		0.27	
Children, 5-7 years	1.16		-1.72		-0.19	
Children, 8-18 years	0.91		-1.37 *		0.52	
Men						
Children[1], 0-1 years	3.72 *		5.17 *		3.79 *	
Children, 2-4 years	0.96		0.92		0.46	
Children, 5-7 years	2.42		-1.13		1.48	
Children, 8-18 years	1.10 *		-1.89 **		0.58	
R^2	0.02		0.01		0.01	

*, **, *** significant with $p<0.05$, 0.01, 0.001
[1] Children living in the same household
Further control variables: health, employment status (dummy variables), self-reported financial strain, relocations during the last 3 years, age (five-year classes, reference age is under 25) and grouped survey years (1992/1994, 1996/1997, 2005/2007, 2009/2011/2015, reference is 1999/2001); see also Tables A2-A4 in the Appendix
Case numbers (all columns): 11359 persons, 43922 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

The same turns out to be true for men. Alike women, there is no notable impact of union formation, cohabitation and marriage on men's risk to be socially isolated in terms of being at the same time without contact to friends or relatives and without participation in associational life (Column 5). Moreover, neither union formation nor the onset of cohabitation affects men's connectedness to friends or relatives (Column 1) or participation in organizations (Column 3). Marriage, however, appears to increase men's risk to be disconnected from friends and relatives, though it shows no impact on participation in associational life.

Applied regression models include control variables such as co-resident children, relocations, employment, and financial strain. These variables are known to be predictors of social isolation and presumably are also affected by transitions in couple relationships. Additional analyses revealed that there are no considerable indirect effects related to

relocations, status of employment, or financial strain (see Tables A2-A4 in the Appendix).[5] However, this is different in case of indirect effects related to children. As shown in Table 2, the effect of marriage on men's risk of disconnectedness from friends and relatives turns out to be remarkably stronger when children-related variables are excluded from the regression model (Column 2). Besides a low direct impact, marriage thus also implies an indirect impact on connectedness to friends and relatives because it is often connected to living with children which in some cases can interfere with keeping regular contact to friends and relatives. As to be seen from the regression coefficients referring to children of different ages, this applies especially to children at an age below 2 years. Presence of children at this age comes along with an increased probability of being without contact in the secondary and tertiary sphere. This however changes as children grow older: there are no similar effects related to children aged 2-4, 5-7, or 8-18 years. On the contrary, there is even a slight reducing impact of older children on non-attendance in civil organizations. From that it can be concluded that the children-related indirect effect of marriage on social disconnectedness is of a temporary nature and limited to the initial phase of parenthood.

Hiekel, Liefbroer, and Poortman (2015) have shown that attitudes and perceptions towards live-in relationships and marriage differ between the Eastern and Western part of Germany.[6] Moreover, it is conjecturable that cultural perceptions towards the different types of relationships vary between the German majority and some of the larger immigrant communities. Effects of relationship transitions on social life might therefore differ between West Germans, East Germans, and migrants. To address this issue, interaction terms for these sub-groups were fitted into the regression models. Resulting coefficients, which are presented in Table A5 in the Appendix, turned out to be rather small (see Columns 1, 3, and 5 of Table A5). According to this, effects of union formation, cohabitation and marriage vary neither between the East and West of Germany nor between the native German majority and the immigrant population. Additional analyses also revealed that the effects are independent of age (see Columns 2, 4, and 6 of Table A5).

Summing up the findings of Table 2, there is only scarce evidence for bridging-effects or isolating effects of partner relationships. Evidence for a bridging-effect can be seen in the reducing effect of union formation on women's risk of being disconnected from friends and relatives. However, this effect appears to be only temporary because it is countermined by the enhancing effect of living together with the new partner. Some evidence for isolating effects can be seen in the effect of union formation on disconnectedness from friends and relatives among women and in the effect of marriage on non-participation in clubs or civil organizations among men.

However, for both genders there is no impact of union formation, living together with a partner, or marriage on concurrent isolation from both social spheres. So far, social

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5   Additional analyses addressing the question of indirect effects and mediation are presented in the Appendix: Table A2 is related to absence of contact with friends and relatives, Table A3 to non-participation in civil organizations, and Table A4 to isolation from both social spheres.

6   Whereas people in West Germany view live-in relationships more often as "a step on the way to marriage" (Hiekel, Liefbroer, and Poortman 2015: 238), people in East Germany regard live-in relationships more frequently as a long-term alternative to marriage.

isolation in a more strict sense appears to be unaffected by the onset and progression of couple relationships.

Figure 2 considers time-effects of being in a certain type of partner relationship. Therefore, regression models are modified by including dummy variables relating to relationship duration, duration of cohabitation, and marriage duration. Table A6 in the Appendix gives a more comprehensive representation of the applied regression models.

Part A of Figure 2 relates to absent contact with friends and relatives. It confirms the results of Table 2. There is only scarce evidence for a bridging-effect: Reducing effects are limited to women and to the initial period after union formation. This corresponds to a slight enhancing effect of the first years after the start of cohabitation. As regards men, we find that the enhancing impact of marriage relates to an interim phase that occurs a few years after marriage. This may be linked to starting a family, which often takes place a few years after marriage. For instance, during their wives' pregnancy – which could not be included as a control variable – men might spend more time with their spouses and less with friends. There is no notable effect later in marriage.

Part B relates to non-participation in civil organizations. Once again, partner relationships appear to have little influence among men. Regarding women, the figure reveals that the enhancing impact of being in a partner relationship relates to the early years after union formation but later disappears. The effects of being in a relationship are not very strong when considering that non-participation in civil organizations is in general much more widespread than the absence of contact with friends and relatives (see Table 1). However, there are comparatively strong effects associated with marriage duration indicating that a woman's probability of non-participation in the tertiary sphere declines significantly with increasing duration of marriage. This is contradictive to the assumption that marriage suppresses participation in social life.

Part C confirms that partner relationships do not lead to a higher risk of being isolated from both social spheres. This is found for both genders and regardless of partnership duration, duration of living together, and marriage duration.

In summary, there is little evidence for an isolating impact of partner relationships. Living together with a partner entails a slightly increased risk for women to be without contact to friends and relatives, but the effect is fairly weak and limited to the initial phase of cohabitation. As regards men, marriage increases disconnectedness from friends and relatives, but this as well appears to be only temporary. Non-participation in associational life among women even declines with increasing duration of marriage. In this regard, marriage turns out to be integrating rather than isolating in the long run.

Figure 2:   Time-effects of partner relationships on social isolation (linear-probability models with fixed effects, percentage points and 95%-confidence limits)

A) Secondary sphere: disconnectedness from friends and relatives

Figure 2: Time-effects of partner relationships on social isolation (linear-probability models with fixed effects, percentage points and 95%-confidence limits) (continued)

B) Tertiary-sphere: non-participation in clubs and civil organizations

Figure 2: Time-effects of partner relationships on social isolation (linear-probability models with fixed effects, percentage points and 95%-confidence limits) (continued)

C) Isolation from both spheres

Source: Table A6 (Appendix)
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

4.2 Social implications of relationship endings

Figure 3 looks at relationship endings. The underlying regression models are presented in detail in Table A7 in the Appendix.

Part A refers to the primary social sphere. Because loss of a partner relationship is commonly followed by a period of being without a partner, strong effects were to be expected. However, as the figure shows, there is a huge difference in size between the effect of partner loss due to the death of the partner and the effects of various types of separation. In the first two years, the effect of bereavement is about 80 percentage points whereas the effects of the different types of separations range from 30 to 50 percentage points. Hence, among those going through a separation, a majority starts a new partner relationship within the next two years. By contrast, only a minority of the bereaved starts a new relationship within the next two years. Effects decrease over time but the difference between separations and partner loss by death is still very large eight years after the incident. This is in particular true for women. Among women, the effect of partner loss by death subsides only slightly over time.

As far as contact with friends and relatives is concerned (Part B), no enhancing effects on social disconnectedness are found. In fact, for women having experienced the death of the partner, the risk of secondary-sphere disconnectedness even is significantly reduced after the loss. This suggests that in case of bereavement friends and relatives often become supportive even when there was no steady contact before. Correspondingly, Kalmijn (2012) and Ha (2008) found a promoting impact of widowhood on the frequency of network contact and on received support.

Part C shows that some types of separations entail a 1 to 7 percentage point increase in non-participation in clubs or civil organizations. However, given an overall share in excess of 40 percent in the sample (see Table 1), these effects are comparatively small. The inference is that tertiary-sphere participation is affected by separations only to a minor extent. Besides that, Part C also shows that, as regards women, non-participation in clubs or organizations slightly diminishes after bereavement.

Part D refers to isolation from all three social spheres. The overall share of this extreme category of social isolation is fairly small (see Table 1). Hence, effects shown in Part D should not be underrated. In cases of marriage separation and death of a partner, the risk of being isolated from all three social spheres is significantly increased in the aftermath. This applies both to the early years after the incident and later on, and is true for both sexes. To a lesser extent, this is also true for break-ups of non-marital unions with a joint household. An effect of separation of a non-cohabiting relationship, by contrast, applies only in the immediate aftermath of the break-up.

Figure 3:   Time-effects of relationship endings on social isolation (linear-probability models with fixed effects, percentage points and 95%-confidence limits)

A) Primary-sphere: living alone and being without a partner
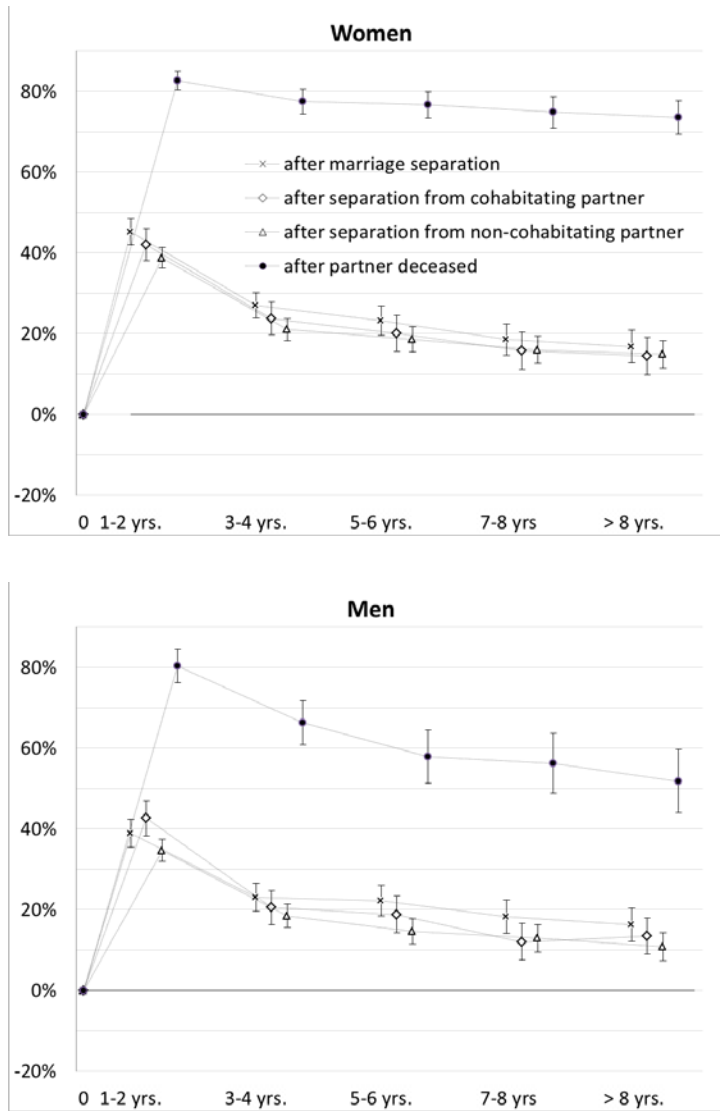
Figure 3: Time-effects of relationship endings on social isolation (linear-probability models with fixed effects, percentage points and 95%-confidence limits) (continued)

B) Secondary sphere: disconnectedness from friends and relatives
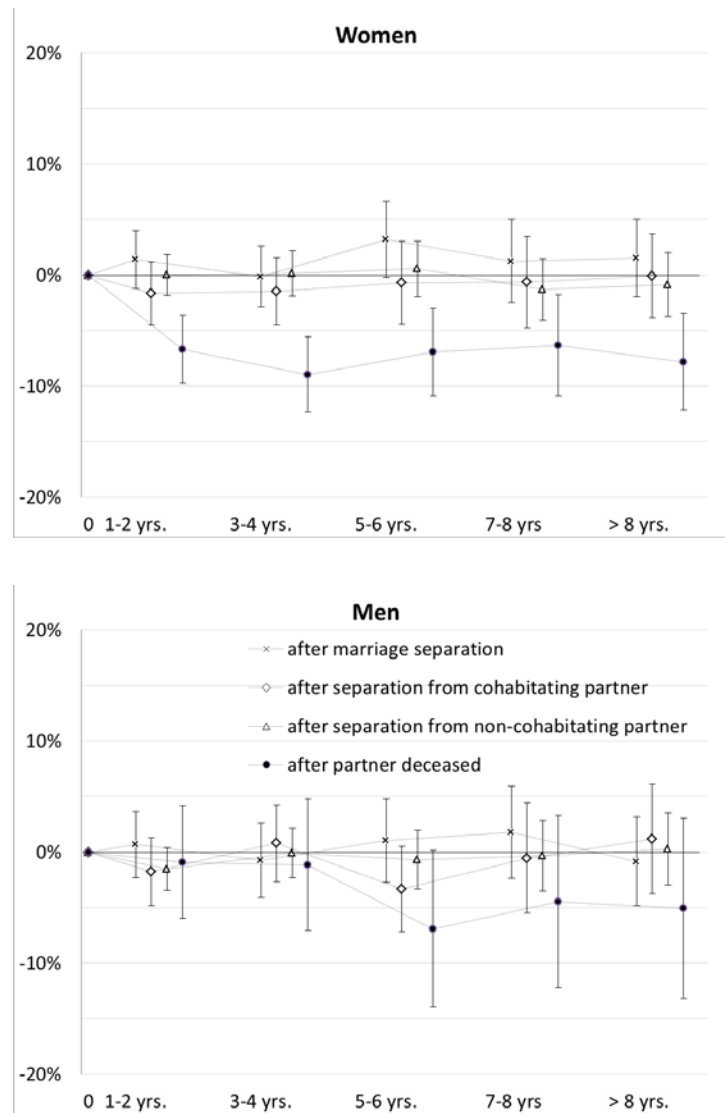
Figure 3:   Time-effects of relationship endings on social isolation (linear-probability models with fixed effects, percentage points and 95%-confidence limits) (continued)

C) Tertiary-sphere: non-participation in clubs and civil organizations
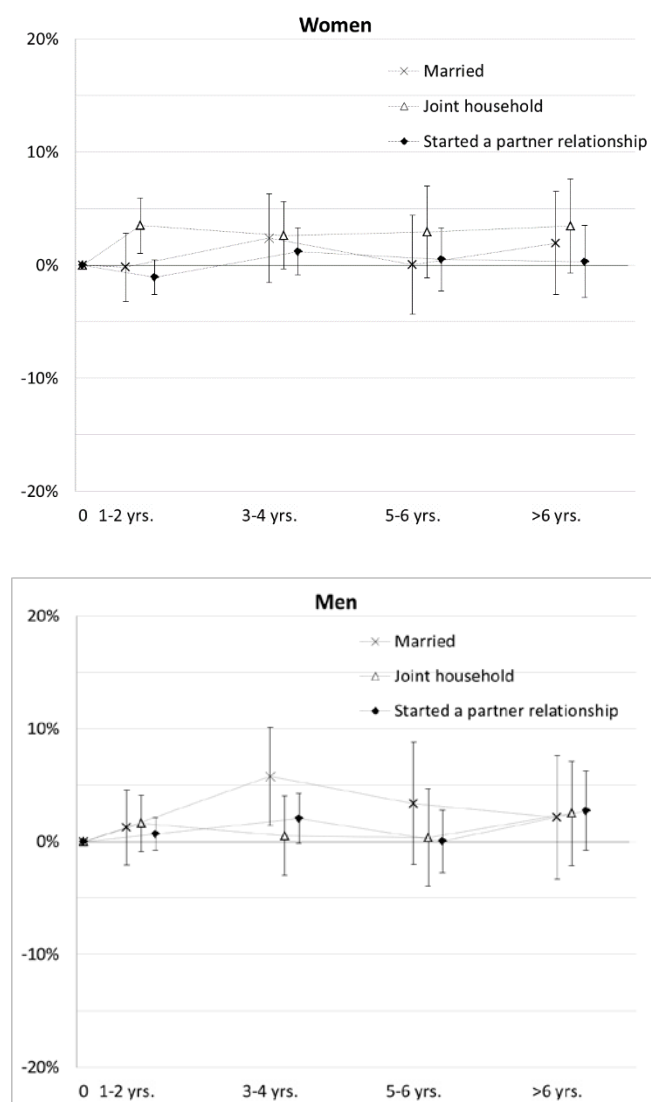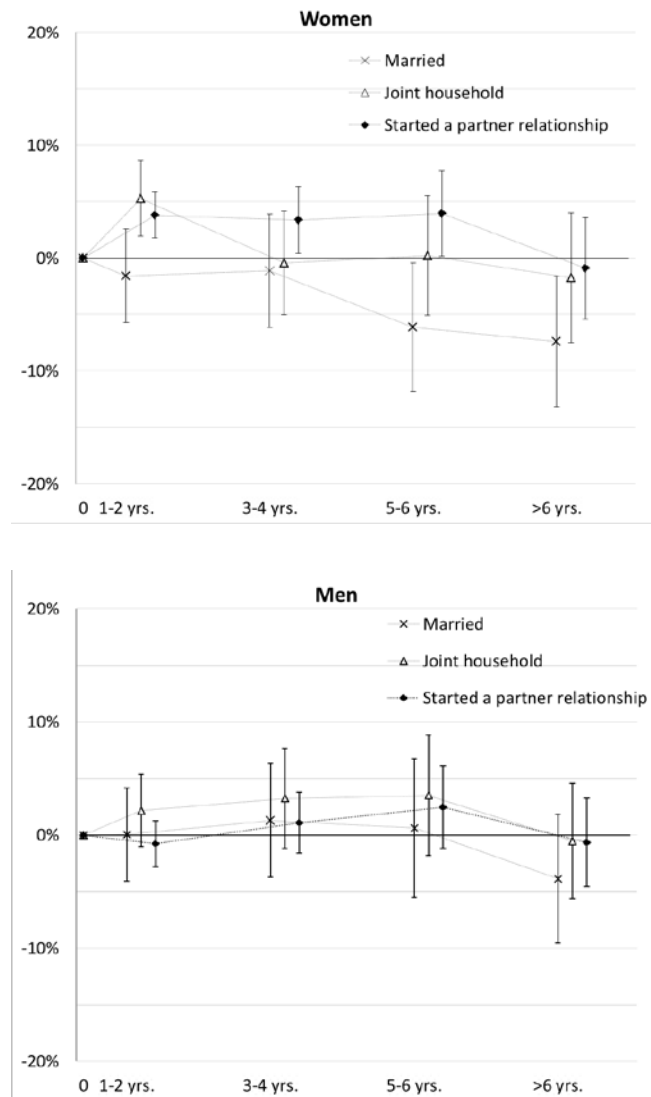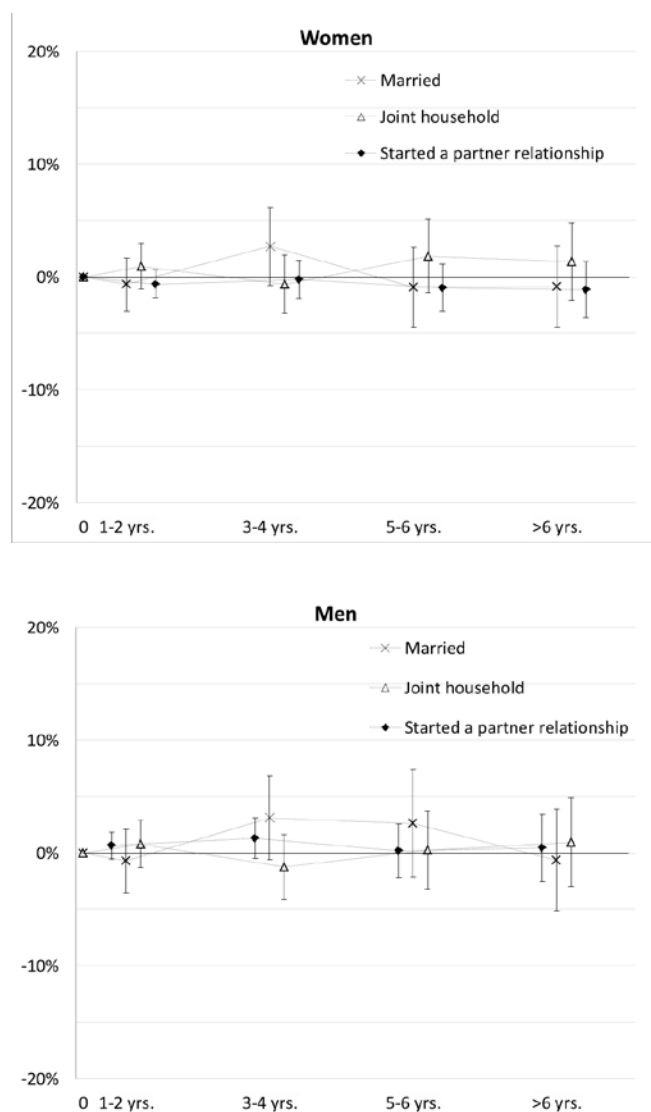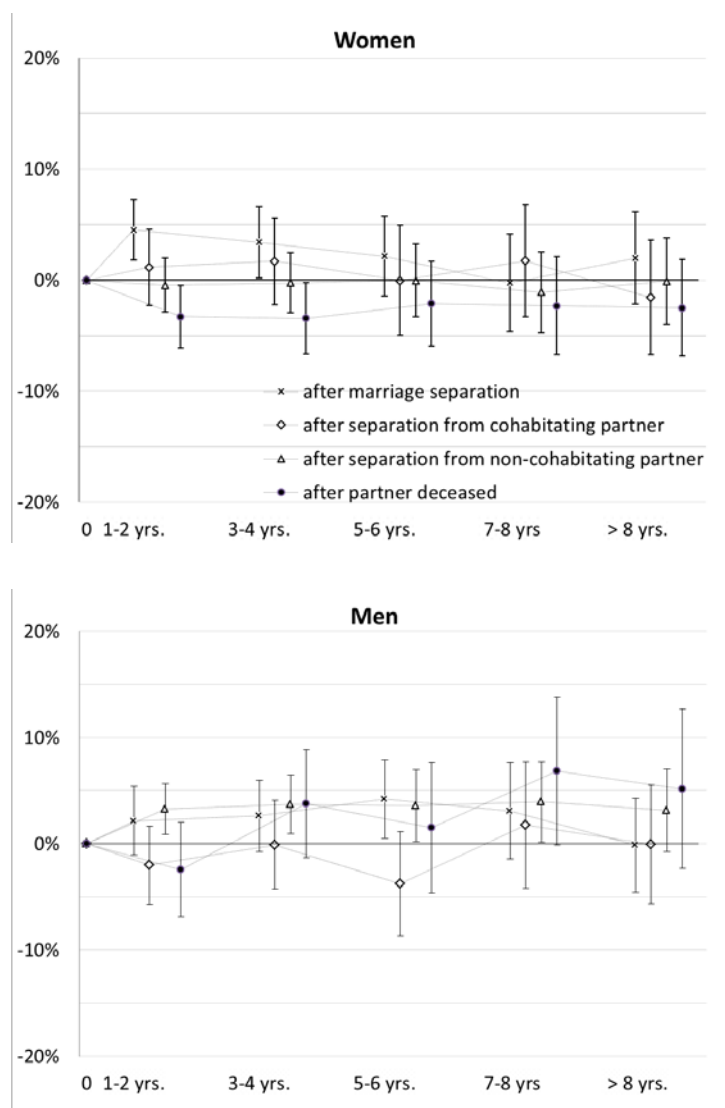
Figure 3:   Time-effects of relationship endings on social isolation (linear-probability models with fixed effects, percentage points and 95%-confidence limits) (continued)

D) Isolation from all three social spheres

Women

Men
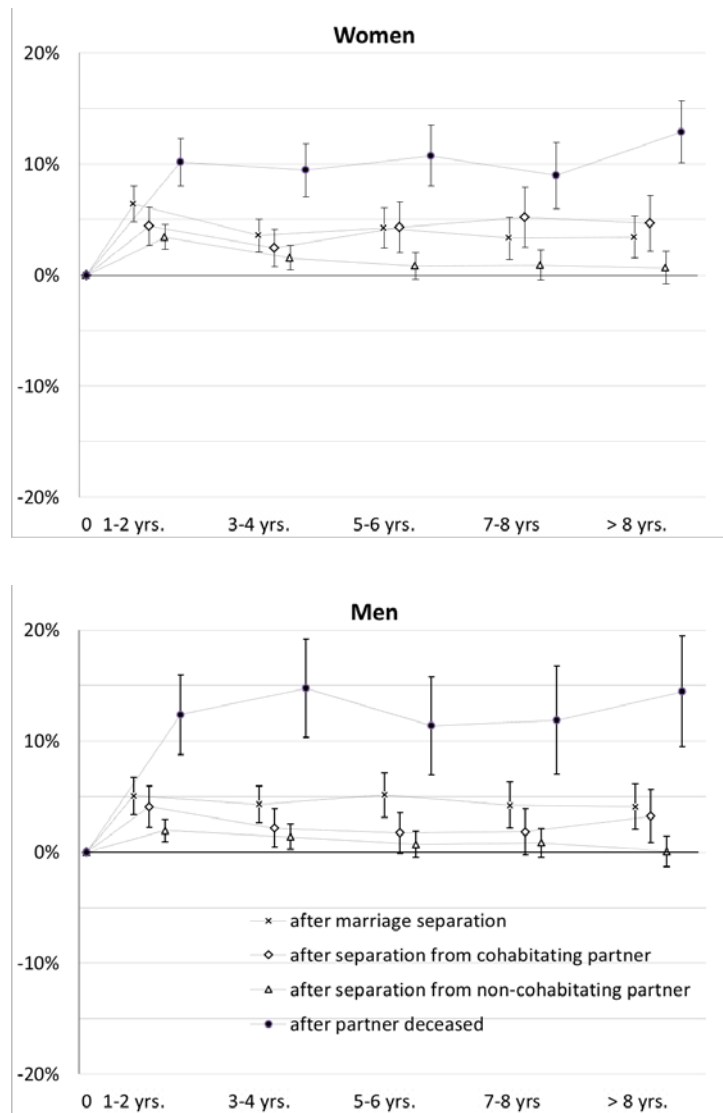
Source: Table A7 (Appendix)
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Apart from the reducing effect of bereavement on disconnectedness from friends and relatives, Figure 3 yields no evidence for integrating effects of relationship endings. This disproves the liberation hypothesis. On the contrary, those experiencing the loss of a partner relationship are exposed to an increased risk of complete social isolation in terms of being without any contact in all three social spheres. However, this is not because endings of partner relationships often entail a loss of contact to friends and relatives or a withdrawal from participation in clubs or organizations. Instead, the reason for the high risk of social isolation among those having lost a partner apparently is that many of them were already disconnected from contacts in the secondary and tertiary sphere in times before the partner relationship has ended and they did not manage to re-establish social contact thereafter. Regarding the above-mentioned hypotheses, this means that it is less the induced-isolation trajectory but rather the continued-isolation trajectory which is common and which underlies the link between endings of partner relationships and an increased risk of becoming completely socially isolated.

Besides that, endings of partner relationships might further have indirect effects on social isolation. Break-ups of partner relationships often involve relocations. Moreover, the loss of the partner can even have health implications. When children are involved, dissolutions of marriages or live-in relationships in most cases also entail that one of the two partners becomes separated from the children. Finally, separation as well as partner loss by death often entails deterioration in financial conditions and therefore sometimes requires a change in employment status. Relocation, health, co-resident children, financial strain, and employment might thus be mediator-variables to the link between endings of partner relationships and social disconnectedness. However, additional analyses revealed that the above-reported effects are independent of whether the regression models include co-resident children, relocation, health, financial strain, or employment (see Tables A8-A11 in the Appendix).[7]

Further additional analyses have addressed the question whether effects of separations and bereavement might differ between West and East Germany or between the immigrant population and the native German majority (Table A12 in the Appendix). Differences between East and West Germany turned out to be negligible.[8] As regards the population with a migrant background, it was found that the impact of marriage separation on primary-sphere contact is stronger (Table A12, Column 1). After a marriage separation, immigrants remain without a new partner for a longer time than non-immigrants. Besides that, however, no considerable differences between immigrants and non-immigrants were found.

Examinations for age-differences show that the social consequences of relationship endings are more serious for men and women at higher ages. Firstly, re-partnering is much more common at a younger age and less frequent at an older age (Table A12, Column 2). Secondly, there also are strong age-differences in the impact of relationship

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7   The only exception is the weak effect of marriage separation on non-participation in associational life among men which turns out to be partially mediated by the existence of co-resident children (Table A11). Children of school-age were found to encourage men to participate in clubs or organizations. Participation appears to be often discontinued when men become separated from children in the aftermath of a marriage dissolution.

8   Related interaction effects are small and not statistically significant (Table A12, Columns 1, 3, 5, and 7).

endings on the risk of becoming isolated from all three social spheres. This is particularly true for separations of marriages and live-in relationships as well as for partner loss due to the death of the partner (Table A12, Column 8).

Age differences are also evident in Figure 4 which refers to isolation in terms of being without contact in all three social spheres. Effects in Figure 4 are calculated separately for relationship endings that occurred at an age below 30, at an age from 30 to 55, and at an age of 55 and above. In case of partner loss by death, however, the figure only distinguishes between an age below 65 and higher ages. This was necessary because partner loss by death is very infrequent at a younger age.[9]

As regards separations of live-in relationships, effects of separations at an age below 30 and an age from 30 to 55 are very weak and in most cases not statistically significant. A strong impact is observed only for separations at age 55 and above. For women as well as men, the effect is still strong after 8 years since the separation.

As regards marriage separations, the enhancing effect on social isolation turns out to be limited in time if the separation occurs at a younger age, whereas it appears to be more permanent in case of separations occurring at a higher age. Marriage separations at an age below 30 raise the risk of isolation only during the first two years after the incident and only for women. Marriage separations at an age from 30 to 55, by contrast, increase the risk of social isolation for a longer time until the effect then declines 7 or eight years after the separation. For marriage separations at age 55 and above, however, an enhancing impact is still observed 8 years after the incident.

Long-term effects on social isolation are also observed for partner loss by death. As Part C of Figure 3 shows, this is true for partner losses at age 65 and above as well as for partner losses at an age below 65. Nevertheless, effects are stronger at a higher age. This suggests that, likewise marriage separations and break-ups of live-in relationships, the impact of partner loss by death becomes increasingly important with advancing age.

4.3 Checks for robustness

Findings were observed to be similar when not adjusted for health, employment status, living with children, financial strain, and relocation. Besides that, principal findings of this study were rechecked using conditional-logit regression. A few of the smaller effects that were statistically significant in linear-probability models were not statistically significant when using conditional-logit models. Apart from this, results from conditional-logit and linear-probability models were found to be consistent.

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9   In the applied sample, 589 women and 296 men experienced the death of a relationship partner at an age below 65 years.

Figure 4: Age-differences in time-effects of relationship endings on social isolation (concurrent isolation from all social spheres; linear-probability models with fixed effects, percentage points and 95%-confidence limits)

A) Separations of live-in relationships
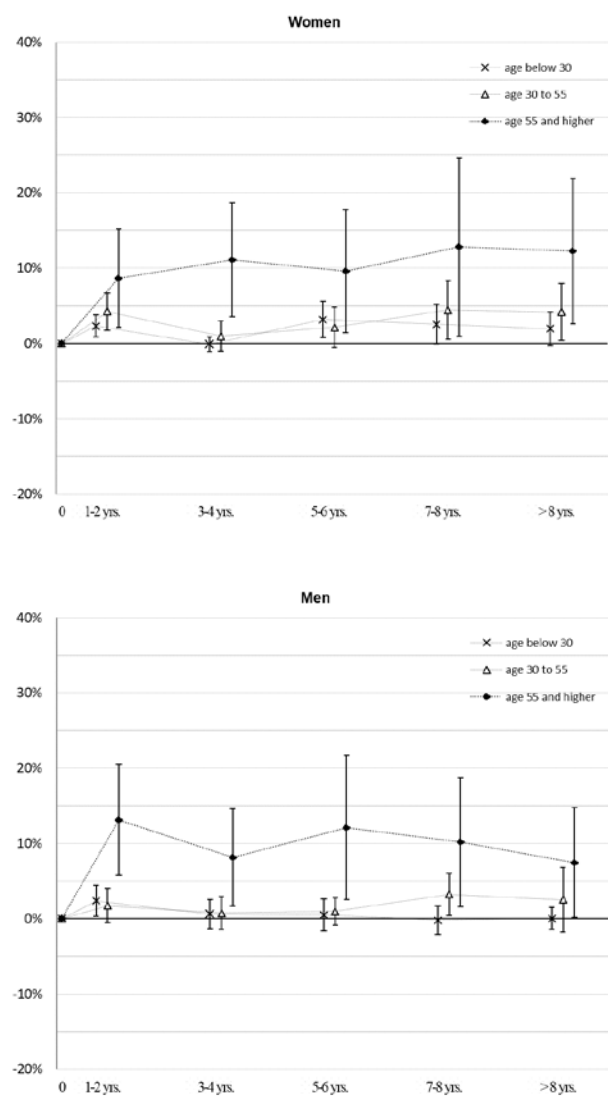
Figure 4:   Age-differences in time-effects of relationship endings on social isolation (concurrent isolation from all social spheres; linear-probability models with fixed effects, percentage points and 95%-confidence limits) (continued)

B) Marriage separations
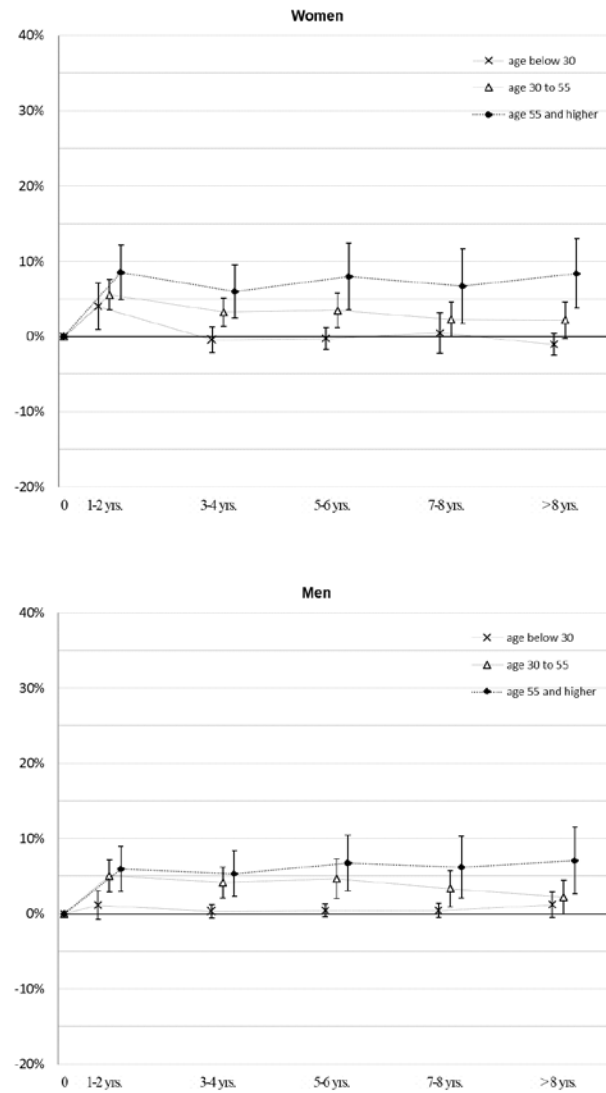
Figure 4: Age-differences in time-effects of relationship endings on social isolation (concurrent isolation from all social spheres; linear-probability models with fixed effects, percentage points and 95%-confidence limits) (continued)

C) Partner loss by death
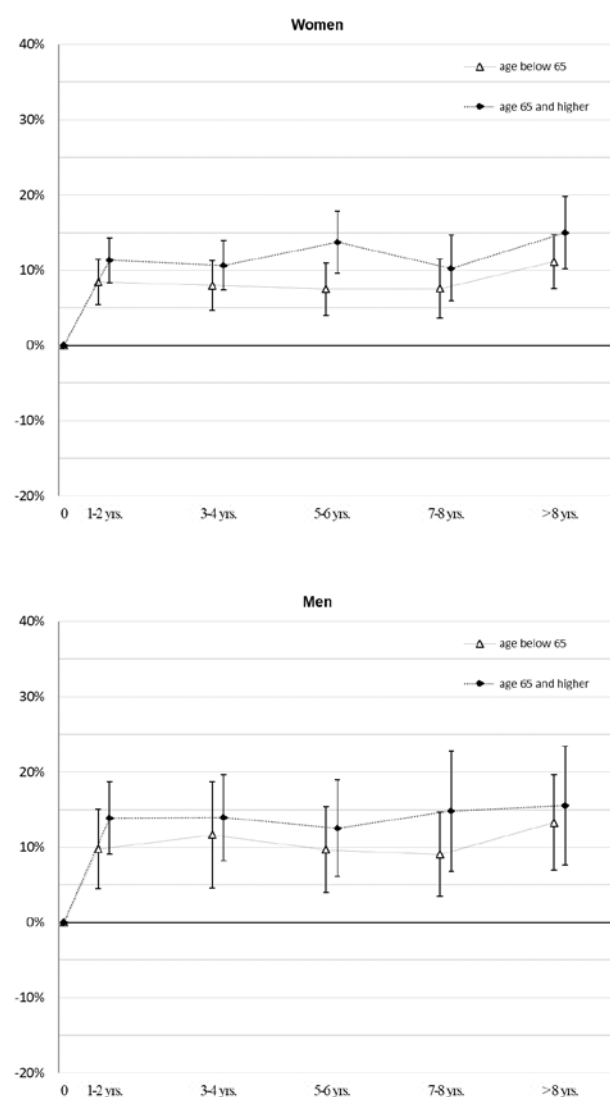
Source: Table A13 (Appendix)
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

5. Discussion

Unlike previous studies on the social consequences of partner relationships, the study at hand links partnership transitions to social isolation whereby social isolation is conceptualized as the absence of social contact. By using panel data from Germany, the study reveals new insights on how transitions in partner relationships shape the risk of becoming socially isolated.

Scarce evidence is found for the assumption that bridging effects reduce the risk of becoming socially isolated in the aftermath of union formations: a reducing impact of union formation is found only for the initial time of non-cohabiting relationships, only for women, and only with regard to isolation in terms of absent contact to friends and relatives (and not with regard to absent participation in associations). Likewise, withdrawal from social life in the aftermath of union formation or marriage turned out to be mostly a temporary phenomenon. By contrast, there is a rise of women's participation in clubs or associations with increasing duration of marriage. In the long run, marriage thus appears to be integrative rather than isolating.

As regards relationship endings, separations of marriages and of live-in relationships were found to increase the risk of complete social isolation in terms of being disconnected from all social spheres including family, friends, relatives and associations. As regards the first years after separation, this also applies to break-ups of non-cohabiting unions. Besides that, a particular strong impact on the risk to become isolated from all social spheres is related to partner loss by death. These results are clearly contradictive to the assumption of a liberating effect of union dissolution. On the contrary, they underline that endings of partner relationships rank among the more frequent causes of social isolation.

Examinations on age-differences suggest that relationship endings entail a high risk of isolation especially when they take place at a higher age. At a younger age, becoming socially disconnected after a separation is less frequent and less durable. Also, partner loss by death entails a lower risk of social disconnectedness when it takes place earlier in life.

There are two conceivable trajectories in the link between endings of partner relationships and complete social isolation: The continued-isolation trajectory implies that those who are completely isolated were already disconnected from friends, relatives and associations in times before. In the induced-isolation trajectory, withdrawal from friends, relatives and associations occurs only after the partner relationship has ended. The findings of this study reveal that endings of partner relationship show no enhancing impact on disconnectedness from friends and relatives and only a small enhancing effect on non-participation in clubs or civil organizations. According to that, becoming isolated from all these social spheres mostly follows the pattern of the continued-isolation trajectory: those who had limited their social interaction to the spouse or partner often fail to become re-integrated when the partner relationship had ended. It can be assumed that this is a common pathway into social isolation in modern societies.

Interventions against loneliness and social isolation should therefore be targeted not only at single persons but also at couples who are disconnected from social ties beyond the dyadic union. Although union formation and marriage were shown to have rather integrating than isolating effects on social life, being without social connections apart from the spouse or partner is not uncommon. In our sample, about 9 percent of those

living with a partner do not participate in clubs or civil organizations and are at the same time are without contact to friends and relatives.

Regarding limitations of the study, there is a possibility that long-term isolating effects of union formation or marriage have not been captured. Although data refer to a comparatively long period, it is possible that it often takes even more time until long-term effects of partnership transitions will become apparent. Another limitation might be that all the data is from Germany and it is unclear whether the findings apply to other national settings. Cross-country differences in the cultural status of marriage and family are likely to go along with different social consequences of union formation, marriage, and endings of partner relationships. It hence is preferable for future studies to rely on data covering an even longer period of time and data allowing for international comparison.

References

Beck, U. (1986). Risikogesellschaft: Auf dem Weg in eine andere Moderne. Frankfurt: Suhrkamp.

Bengtson, V. L. (2001). Beyond the nuclear family: The increasing importance of multigenerational bonds. *Journal of Marriage and Family*, 63, 1, 1-16. https://doi.org/10.1111/j.1741-3737.2001.00001.x

Ben-Zur, H. (2012). Loneliness, optimism, and well-being among married, divorced, and widowed individuals. *The Journal of Psychology*, 146, 1-2, 23-36. https://doi.org/10.1080/00223980.2010.548414

Canduela, J., Lindsay, C., Raeside, R. & Graham, H. (2015). Employability, poverty and the spheres of sociability – Evidence from the British Household Panel Survey. *Social Policy & Administration*, 49, 5, 571-592. https://doi.org/10.1111/spol.12101

Courtin, E. & Knapp, M. (2017). Social isolation, loneliness and health in old age: A scoping review. *Health & Social Care in the Community*, 25, 3, 799-812. https://doi.org/10.1111/hsc.12311

Durkheim, É. (1921). La famille conjugale. *Revue Philosophique de la France et de l'Etranger*, 91, 1-14.

Dykstra, P. A., Van Tilburg, T. G. & De Jong Gierveld, J. (2005). Changes in older adult loneliness: Results from a seven-year longitudinal study. *Research on Aging*, 27, 6, 725-747. https://doi.org/10.1177/0164027505279712

Eckhard, J. (2018). Does Poverty Increase the Risk of Social Isolation? *The Sociological Quarterly*, 59, 338-359. https://doi.org/10.1080/00380253.2018.1436943

Gallie, D., Paugam, S. & Jacobs, S. (2003). Unemployment, poverty and social isolation: Is there a vicious circle of social exclusion? *European Societies*, 5, 1, 1-32. https://doi.org/10.1080/1461669032000057668

Giddens, A. (1991). Modernity and self-identity. Self and society in the late modern age. Cambridge: Polity Press.

Gillespie, B. J., Lever, J., Frederick, D. & Royce, T. (2015). Close adult friendships, gender, and the life cycle. *Journal of Social and Personal Relationships*, 32, 6, 709-736. https://doi.org/10.1177/0265407514546977

Goebel, J., Grabka, M. M., Liebig, S., Kroh, M., Richter, D., Schröder, C. & Schupp, J. (2018). The German Socio-Economic Panel (SOEP). *Jahrbücher für Nationalökonomie und Statistik/ Journal of Economics and Statistics*, 239, 2, 345-360. https://doi.org/10.1515/jbnst-2018-0022

Ha, J-H. (2008). Changes in support from confidants, children, and friends following widowhood. *Journal of Marriage and Family*, 70, 2, 306-318. https://doi.org/10.1111/j.1741-3737.2008.00483.x

Hiekel, N., Liefbroer, A. C. & Poortman, A-R. (2015). Marriage and separation risks among German cohabiters: Differences between types of cohabiter. *Population Studies*, 69, 2, 237-251. https://doi.org/10.1080/00324728.2015.1037334

Johnson, M. P. & Leslie, L. (1982). Couple involvement and network structure: A test of the dyadic withdrawal hypothesis. *Social Psychology Quarterly*, 45, 1, 34-43. https://doi.org/10.2307/3033672

Kalmijn, M. (2003). Friendship networks over the life course: A test of the dyadic withdrawal hypothesis using survey data on couples. *Social Networks*, 25, 3, 231-249. https://doi.org/10.1016/S0378-8733(03)00010-8

Kalmijn, M. (2012). Longitudinal analyses of the effects of age, marriage, and parenthood on social contacts and support. *Advances in Life Course Research*, 17, 4, 177-190. https://doi.org/10.1016/j.alcr.2012.08.002

Kalmijn, M. & Broese van Groenou, M. I. (2005). Differential effects of divorce on social integration. *Journal of Social and Personal Relationships*, 22, 4, 455-476. https://doi.org/10.1177/0265407505054516

Litwak, E. (1960). Geographic mobility and extended family cohesion. *American Sociological Review*, 25, 3, 385-394. https://doi.org/10.2307/2092085

Machielse, A. (2006). Theories on social contacts and social isolation. In: Hortulanus, R., Machielse, A. & Meeuwesen, L. (Eds.), *Social isolation in modern society*. London: Routledge, 13-36.

Meeuwesen, L. (2006). Health and social isolation. In: Hortulanus, R., Machielse, A. & Meeuwesen, L. (Eds.), *Social isolation in modern society*. London: Routledge, 100-114.

Miller, N. B., Smerglia, V. L., Gaudet, D. S. & Kitson, G. C. (1998). Stressful life events, social support, and the distress of widowed and divorced women: A counteractive model. *Journal of Family Issues*, 19, 2, 181-203. https://doi.org/10.1177/019251398019002004

Munch, A., McPherson, J. M. & Smith-Lovin, L. (1997). Gender, children, and social contact: The effects of childrearing for men and women. *American Sociological Review*, 62, 4, 509-520. https://doi.org/10.2307/2657423

Parigi, P. & Henson, W. (2014). Social isolation in America. *Annual Review of Sociology*, 40, 1, 153-171. http://doi.org/10.1146/annurev-soc-071312-145646

Parsons, T. (1955). The American family: Its relations to personality and to the social structure. In: Parsons, T. & Bales, R. F. (Eds.), *Family, socialization and interaction process*. New York: The free press, 3-33.

Putnam, R. D. (2001). Bowling alone: The collapse and revival of American community. New York: Simon & Schuster.

Slater, P. E. (1963). On social regression. *American Sociological Review*, 28, 3, 339-364. https://doi.org/10.2307/2090346

Utz, R. L., Carr, D., Nesse, R. & Wortman, C. B. (2002). The effect of widowhood on older adults' social participation: An evaluation of activity, disengagement, and continuity theories. *The Gerontologist*, 42, 4, 522-533. https://doi.org/10.1093/geront/42.4.522

Wagner, M. & Wolf, C. (2001). Altern, Familie und soziales Netzwerk. *Zeitschrift für Erziehungswissenschaft*, 4, 4, 529-554. https://doi.org/10.1007/s11618-001-0056-5

Wellman, B. (1979). The community question: The intimate networks of East Yorkers. *American Journal of Sociology*, 84, 5, 1201-1231. https://doi.org/10.1086/226906

Wrzus, C., Hänel, M., Wagner, J. & Neyer, F. J. (2013). Social network changes and life events across the life span: A meta-analysis. *Psychological Bulletin*, 139, 1, 53-80. https://doi.org/10.1037/a0028601

Zettel, L. A. & Rook, K. S. (2004). Substitution and compensation in the social networks of older widowed women. *Psychology and Aging*, 19, 3, 433-443. https://doi.org/10.1037/0882-7974.19.3.433

Appendix

Table A.1:   Distribution of key-variables among drop-out cases and cases remaining in the sample

	Drop-out cases	Remaining cases
Male (percent)	47.73	47.04
No primary-sphere contact (percent)	14.19	11.42
No secondary-sphere contact (percent)	17.32	16.17
No tertiary-sphere contact (percent)	45.25	42.81
Isolation from all three spheres (percent)	1.88	1.20
Single (percent)	23.92	22.00
Dating relationship (percent)	9.92	8.27
Live-in relationship (percent)	10.69	11.65
Married (percent)	49.74	52.21
Full-time job (percent)	50.04	55.55
Part-time job (percent)	15.66	13.46
Unemployed (percent)	6.97	6.49
Retired (percent)	18.11	15.42
Relocation during the last three years (percent)	0.18	0.30
Financial strain (percent)	20.64	20.51
Health problems (percent)	15.92	12.74
Age (mean)	43.18	41.47
Number of co-resident children (mean)	0.97	0.92
N	14783	38058
Data source: German Socio-economic Panel, waves 1992, 1994, 1996, 1997, 1999, 2001, 2005, 2007, 2009, 2011, and 2015		

Table A.2: Effects of partner relationships, children, employment, relocations, health and financial strain on absence of secondary-sphere contacts (disconnectedness from friends and relatives; linear-probability models with fixed effects, percentage points)

	(1)		(2)		(3)		(4)		(5)		(6)	
Women:												
Started a partner relationship	-1.26	*	-1.30	*	-1.49	*	-1.30	*	-1.29	*	-1.31	*
Started living together	3.57	**	3.48	**	3.90	**	3.55	**	3.51	**	3.61	**
Got married	0.57		0.57		1.19		0.39		0.49		0.56	
Men:												
Started a partner relationship	0.57		0.54		0.30		0.52		0.60		0.57	
Started living together	0.71		0.61		1.15		0.80		0.58		0.66	
Got married	2.35		2.37		3.44	*	2.45		2.34		2.38	
Women:												
Children[1], 0-1 yrs.	7.69	***	7.69	***			7.11	***	7.67	***	7.52	***
Children, 2-4 yrs.	0.38		0.40				0.05		0.34		0.27	
Children, 5-7 yrs.	1.16		1.24				1.05		1.16		1.10	
Children, 8-18 yrs.	0.91	*	0.99	*			0.93	*	0.89	*	0.92	*
Part-time job[2]	-0.90		-0.92		-0.79				-0.80		-0.93	
Not working	-1.47		-1.50		0.64				-1.30		-1.34	
Retired	-4.71	**	-4.73	**	-4.36	*			-4.66	**	-4.47	**
Unemployed	-3.07	**	-3.09	*	-2.73	*			-2.75	*	-3.01	**
Financial strain[3]	1.72	**	1.71	*	1.70	*	1.57	*			1.94	**
Men:												
Children[1], 0-1 years	3.72	*	3.71	*			3.78	*	3.78	*	3.71	*
Children, 2-4 years	0.96		0.98				0.98		0.95		0.98	
Children, 5-7 years	2.43		2.51				2.40		2.44		2.52	
Children, 8-18 years	1.10		1.16				1.14		1.12		1.06	
Part-time job[2]	-3.02	**	-3.04	**	-3.03	**			-2.88	**	-3.07	**
Not working	0.96		0.96		1.05				1.42		1.42	
Retired	-1.78		-1.79		-1.78				-1.73		-1.65	
Unemployed	-1.87		-1.87		-1.97				-1.38		-1.61	
Financial strain[3]	2.52	**	2.53	**	2.55	**	2.38	**			2.72	***
Health problems[4]	4.87	***	4.87	***	4.84	***	4.83	***	4.99	***		
Relocated[5]	-0.98				-1.22		-1.02		-0.97		-1.00	
Year:												
1992/1994[6]	0.67		0.73		1.06		0.84		0.66		0.53	
1996/1997	-2.10	**	-2.09	**	-1.87	**	-2.02	**	-2.08	**	-2.16	**
2005/2007	1.68	**	1.68	*	1.37	*	1.49	*	1.92	**	1.80	**
2009/ 2011/ 2015	3.00	**	3.01	**	2.44	*	2.75	**	3.19	**	3.18	**
R^2	0.02		0.02		0.02		0.02		0.02		0.01	

*, **, *** significant with p<0.05, 0.01, 0.001
[1] Children living in the same household
[2] Reference is full-time work
[3] Self-reported serious worries about financial circumstances
[4] Self-rated poor health, binary coded, poor or very poor health vs. good, very good, or moderate
[5] Having moved into another dwelling within the last three years
[6] Reference are years 1999 and 2001
Further control variable: age (five-year classes, see Figure A1)
Case numbers (all columns): 11359 persons, 43922 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

Table A.3: Effects of partner relationships, children, employment, relocations, health and financial strain on absence of tertiary-sphere contacts (non-participation in clubs and civil organizations; linear-probability models with fixed effects, percentage points)

	(1)		(2)		(3)		(4)		(5)		(6)	
Women:												
Started a partner relationship	-0.84		-0.86		-0.93		-0.86		-0.87		-0.88	
Started living together	1.16		1.11		1.40		1.13		1.10		1.19	
Got married	0.16		0.16		0.54		-0.06		0.08		0.15	
Men:												
Started a partner relationship	0.77		0.74		0.63		0.71		0.78		0.76	
Started living together	-0.16		-0.22		0.17		-0.07		-0.27		-0.20	
Got married	0.34		0.35		1.15		0.43		0.32		0.36	
Women:												
Children[1], 0-1 years	6.34	***	6.34	***			5.51	***	6.32	***	6.19	***
Children, 2-4 years	0.27		0.29				-0.07		0.23		0.17	
Children, 5-7 years	-0.19		-0.15				-0.30		-0.20		-0.24	
Children, 8-18 years	0.53		0.57				0.53		0.50		0.53	
Part-time job[2]	-0.75		-0.76		-0.15				-0.65		-0.77	
Not working	-1.93		-1.95		-0.15				-1.78		-1.82	
Retired	-1.88		-1.89		-1.62				-1.84		-1.67	
Unemployed	-1.13		-1.14		-0.86				-0.82		-1.08	
Financial strain[3]	1.63	**	1.63	**	1.61	**	1.57	**			1.82	**
Men:												
Children[1], 0-1 years	3.79	**	3.78	*			3.86	**	3.84	**	3.78	**
Children, 2-4 years	0.46		0.48				0.49		0.46		0.49	
Children, 5-7 years	1.48		1.52				1.46		1.49		1.56	
Children, 8-18 years	0.58		0.61				0.64		0.60		0.54	
Part-time job[2]	-2.89	***	-2.91	**	-2.91	**			-2.78	**	-2.94	***
Not working	0.85		0.85		0.93				1.22		1.25	
Retired	-2.79		-2.79		-2.79				-2.75		-2.68	
Unemployed	-2.34	*	-2.34	*	-2.40	*			-1.95	*	-2.12	*
Financial strain[3]	2.03	**	2.03	**	2.05	**	1.85	**			2.20	**
Health problems[4]	4.25	***	4.25	***	4.23	***	4.22	***	4.36	***		
Relocated[5]	-0.54				-0.65		-0.59		-0.54		-0.57	
Year:												
1992/1994[6]	0.01		0.04		0.22		0.16		0.00		-0.12	
1996/1997	-1.48	**	-1.48	**	-1.36	*	-1.40	**	-1.46	**	-1.54	**
2005/2007	1.01	*	1.01		0.83		0.87		1.21	*	1.12	*
2009/ 2011/ 2015	2.03	**	2.04	*	1.70	*	1.85	**	2.20	**	2.19	**
R[2]	0.01		0.01		0.01		0.01		0.01		0.01	

*, **, *** significant with p<0.05, 0.01, 0.001
[1] Children living in the same household
[2] Reference is full-time work
[3] Self-reported serious worries about financial circumstances
[4] Self-rated poor health, binary coded, poor or very poor health vs. good, very good, or moderate
[5] Having moved into another dwelling within the last three years
[6] Reference are years 1999 and 2001
Further control variable: age (five-year classes, see Figure A1)
Case numbers (all columns): 11359 persons, 43922 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

Table A.4: Effects of partner relationships, children, employment, relocations, health and financial strain on absence of both secondary-sphere and tertiary-sphere contacts (linear-probability models with fixed effects, percentage points)

	(1)		(2)		(3)		(4)		(5)		(6)	
Women:												
Started a partner relationship	-0.84		-0.86		-0.93		-0.86		-0.87		-0.88	
Started living together	1.16		1.11		1.40		1.13		1.10		1.19	
Got married	0.16		0.16		0.54		-0.06		0.08		0.15	
Men:												
Started a partner relationship	0.77		0.74		0.63		0.71		0.78		0.76	
Started living together	-0.16		-0.22		0.17		-0.07		-0.27		-0.20	
Got married	0.34		0.35		1.15		0.43		0.32		0.36	
Women:												
Children[1], 0-1 years	6.34	***	6.34	***			5.51	***	6.32	***	6.19	***
Children, 2-4 years	0.27		0.29				-0.07		0.23		0.17	
Children, 5-7 years	-0.19		-0.15				-0.30		-0.20		-0.24	
Children, 8-18 years	0.53		0.57				0.53		0.50		0.53	
Part-time job[2]	-0.75		-0.76		-0.15				-0.65		-0.77	
Not working	-1.93		-1.95						-1.78		-1.82	
Retired	-1.88		-1.89		-1.62				-1.84		-1.67	
Unemployed	-1.13		-1.14		-0.86				-0.82		-1.08	
Financial strain[3]	1.63	**	1.63	**	1.61	**	1.57	**			1.82	**
Men:												
Children[1], 0-1 years	3.79	**	3.78	*			3.86	**	3.84	**	3.78	**
Children, 2-4 years	0.46		0.48				0.49		0.46		0.49	
Children, 5-7 years	1.48		1.52				1.46		1.49		1.56	
Children, 8-18 years	0.58		0.61				0.64		0.60		0.54	
Part-time job[2]	-2.89	***	-2.91	**	-2.91	**			-2.78	**	-2.94	***
Not working	0.85		0.85		0.93				1.22		1.25	
Retired	-2.79		-2.79		-2.79				-2.75		-2.68	
Unemployed	-2.34	*	-2.34	*	-2.40	*			-1.95	*	-2.12	*
Financial strain[3]	2.03	**	2.03	**	2.05	**	1.85	**			2.20	**
Health problems[4]	4.25	***	4.25	***	4.23	***	4.22	***	4.36	***		
Relocated[5]	-0.54				-0.65		-0.59		-0.54		-0.57	
Year:												
1992/1994[6]	0.01		0.04		0.22		0.16		0.00		-0.12	
1996/1997	-1.48	**	-1.48	**	-1.36	*	-1.40	**	-1.46	**	-1.54	**
2005/2007	1.01	*	1.01		0.83		0.87		1.21	*	1.12	*
2009/ 2011/ 2015	2.03	**	2.04	*	1.70	*	1.85	**	2.20	**	2.19	**
R^2	0.01		0.01		0.01		0.01		0.01		0.01	

*, **, *** significant with $p<0.05$, 0.01, 0.001
[1] Children living in the same household
[2] Reference is full-time work
[3] Self-reported serious worries about financial circumstances
[4] Self-rated poor health, binary coded, poor or very poor health vs. good, very good, or moderate
[5] Having moved into another dwelling within the last three years
[6] Reference are years 1999 and 2001
Further control variable: age (five-year classes, see Figure A1)
Case numbers (all columns): 11359 persons, 43922 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

Figure A.1: Age-effects on absence of secondary-sphere contacts (disconnectedness from friends and relatives) and absence of tertiary-sphere contacts (non-participation in clubs and civil organizations)

Men
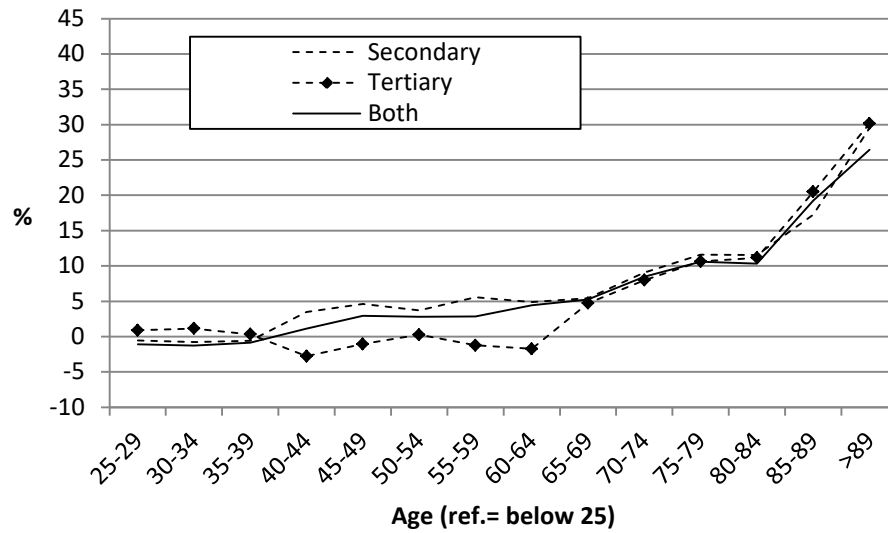
Women
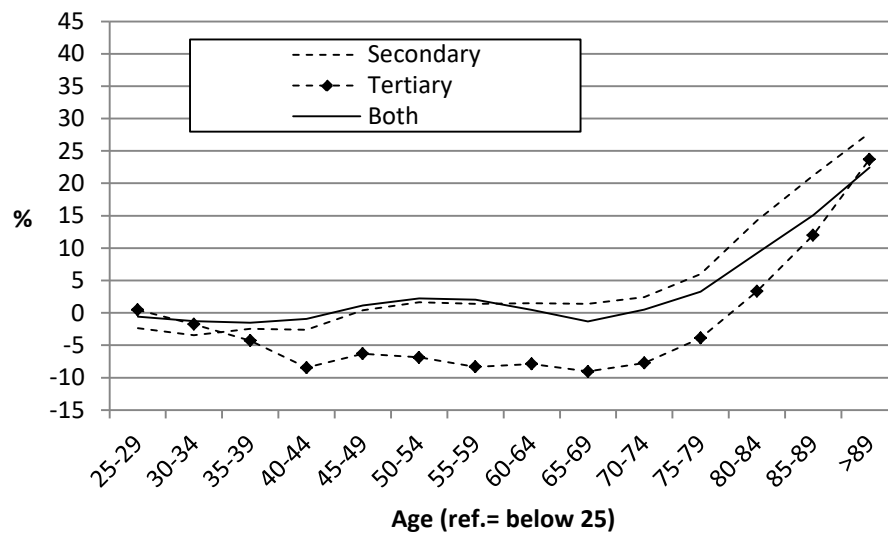
Linear-probability models with fixed effects, percentage points, covariates as in Tables A2-A4
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

Table A.5:   Moderation of the effects of partner relationships by region, migration background, and age (linear-probability models with fixed effects, percentage points)

	Secondary sphere: disconnectedness from friends and relatives		Tertiary sphere: non-participation in clubs and civil organizations		Isolation from both spheres	
	(1)	(2)	(3)	(4)	(5)	(6)
Women:						
Started a partner relationship	-1.22 *	-1.22 *	3.93 **	4.14 ***	-0.82	0.71
* East Germany	-0.49		-0.94		-0.32	
* migration background	0.39		1.07		0.65	
* age < 30		-0.32		0.55		-0.26
* age > 45		-0.54		-0.93		-0.51
Started living together	3.67 **	3.43 **	1.14	1.01	1.03	1.01
* East Germany	-0.98		-0.97		0.58	
* migration background	-0.95		-1.23		-0.74	
* age < 30		0.76		-0.52		0.62
* age > 45		0.78		-1.27		0.79
Got married	0.49	0.41	-4.20 **	-4.20	0.09	0.08
* East Germany	-0.65		0.39		0.37	
* migration background	0.67		-1.28		-0.33	
* age < 30		0.56		-0.31		-0.64
* age > 45		0.88		0.27		0.52
Men:						
Started a partner relationship	0.84	0.60	-0.62	-0.49	0.91	0.93
* East Germany	0.51		-0.96		-0.68	
* migration background	-1.42		0.79		-0.35	
* age < 30		-0.30		-0.58		-0.25
* age > 45		0.75		-0.96		-0.42
Started living together	0.61	0.74	2.99 *	2.71 *	-0.16	0.23
* East Germany	0.98		0.31		0.64	
* migration background	1.21		-1.26		0.54	
* age < 30		-0.98		0.52		-0.72
* age > 45		-0.85		-0.49		-0.96
Got married	2.68	2.25	-0.52	-0.63	0.48	0.35
* East Germany	0.05		0.21		0.56	
* migration background	-1.67		-1.26		-0.72	
* age < 30		-0.68		0.54		0.88
* age > 45		0.83		0.58		-0.78
R^2	0.02	0.02	0.01	0.01	0.01	0.01

*, **, *** significant with $p<0.05$, 0.01, 0.001
Further control variables as in Tables A2-A4
Case numbers (all columns): 11359 persons, 43922 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

Table A.6: Time-effects of partner relationships on social isolation (linear-probability models with fixed effects, percentage points)

		Secondary sphere: disconnectedness from friends and relatives			Tertiary sphere: non-participation in clubs and civil organizations		
		(1)	(2)	(3)	(4)	(5)	(6)
Women – relationship duration	1-2 yrs.	-1.07			3.81 **		
	3-4 yrs.	1.20			3.38 *		
	5-6 yrs.	0.50			3.94 *		
	> 6 yrs.	0.30			-0.91		
Women – duration of living together	1-2 yrs.		3.49 **			5.29 **	
	3-4 yrs.		1.64			-0.44	
	5-6 yrs.		2.93			0.22	
	> 6 yrs.		3.46			-1.75	
Women – duration of marriage	1-2 yrs.			-0.20			-1.57
	3-4 yrs.			2.38			-1.12
	5-6 yrs.			0.03			-6.14 *
	> 6 yrs.			1.94			-7.42 *
Men – relationship duration	1-2 yrs.	0.68			-0.78		
	3-4 yrs.	2.05			1.09		
	5-6 yrs.	0.03			2.47		
	> 6 yrs.	2.76			-0.66		
Men –duration of living together	1-2 yrs.		1.60			2.17	
	3-4 yrs.		0.54			3.23	
	5-6 yrs.		0.35			3.51	
	> 6 yrs.		2.51			-0.53	
Men – duration of marriage	1-2 yrs.			1.25			0.03
	3-4 yrs.			5.78 **			1.29
	5-6 yrs.			3.38			0.62
	> 6 yrs.			2.15			-3.86
R^2		0.02	0.02	0.02	0.01	0.01	0.01

*, **, *** significant with $p<0.05$, 0.01, 0.001
Control variables as in Tables A2-A4
Case numbers (all columns): 11359 persons, 43922 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

Table A.6:   Time-effects of partner relationships on social isolation (linear-probability models with fixed effects, percentage points) (continued)

		Isolation from both spheres		
		(7)	(8)	(9)
Women – relationship duration	1-2 yrs.	-0.62		
	3-4 yrs.	-0.23		
	5-6 yrs.	-0.94		
	> 6 yrs.	-1.12		
Women – duration of living together	1-2 yrs.		0.96	
	3-4 yrs.		-0.63	
	5-6 yrs.		1.86	
	> 6 yrs.		1.35	
Women – duration of marriage	1-2 yrs.			-0.67
	3-4 yrs.			2.71
	5-6 yrs.			-0.91
	> 6 yrs.			-0.86
Men – relationship duration	1-2 yrs.	0.65		
	3-4 yrs.	1.31		
	5-6 yrs.	0.21		
	> 6 yrs.	0.44		
Men –duration of living together	1-2 yrs.		0.80	
	3-4 yrs.		-1.23	
	5-6 yrs.		0.24	
	> 6 yrs.		0.94	
Men – duration of marriage	1-2 yrs.			-0.72
	3-4 yrs.			3.12
	5-6 yrs.			2.62
	> 6 yrs.			-0.64
R^2		0.01	0.01	0.01

*, **, *** significant with p<0.05, 0.01, 0.001
Control variables as in Tables A2-A4
Case numbers (all columns): 11359 persons, 43922 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 1, see Table 1)

Table A.7:   Time-effects of relationship endings on different types of social isolation (from linear-probability models with fixed effects, percentage points)

		Primary sphere: no partner and living alone		Secondary sphere: disconnectedness from friends and relatives		Tertiary sphere: non-participation in clubs and civil organizations		Isolation from all three spheres	
		(1)		(2)		(3)		(4)	
Women – separation of non-cohabiting relationship	1-2 years	38.79	***	0.01		-0.44		3.42	***
	3-4 years	21.04	***	0.16		-0.22		1.56	**
	5-6 years	18.56	***	0.56		-0.03		0.81	
	7-8 years	16.02	***	-1.30		-1.09		0.89	
	>8 years	14.89	***	-0.87		-0.07		0.66	
Women – separation of live-in relationship	1-2 years	42.09	***	-1.64		1.17		4.39	***
	3-4 years	23.76	***	-1.47		1.72		2.44	**
	5-6 years	20.04	***	-0.66		-0.01		4.32	**
	7-8 years	15.77	***	-0.65		1.76		5.18	**
	>8 years	14.47	***	-0.06		-1.55		4.68	**
Women – marriage separation	1-2 years	45.24	***	1.41		4.54	**	6.39	***
	3-4 years	27.03	***	-0.13		3.42	*	3.57	***
	5-6 years	23.19	***	3.22		2.18		4.24	***
	7-8 years	18.56	***	1.25		-0.24		3.31	**
	>8 years	16.84	***	1.54		1.98		3.40	**
Women – partner deceased	1-2 years	82.65	***	-6.70	***	-3.28	*	10.16	***
	3-4 years	77.46	***	-8.95	***	-3.43	*	9.44	***
	5-6 years	76.64	***	-6.91	**	-2.09		10.74	***
	7-8 years	74.81	***	-6.35	**	-2.30		8.96	***
	>8 years	73.52	***	-7.81	**	-2.48		12.90	***
Men – separation of non-cohabiting relationship	1-2 years	34.66	***	-1.51		3.25	**	1.94	**
	3-4 years	18.50	***	-0.06		3.69	**	1.40	*
	5-6 years	14.61	***	-0.67		3.59	*	0.68	
	7-8 years	12.89	***	-0.35		3.93	*	0.85	
	>8 years	10.84	***	0.29		3.15		0.09	
Men – separation of live-in relationship	1-2 years	42.62	***	-1.75		-2.04		4.10	***
	3-4 years	20.49	***	0.79		-0.10		2.17	*
	5-6 years	18.80	***	-3.31		-3.78		1.74	
	7-8 years	12.02	***	-0.55		1.76		1.85	
	>8 years	13.50	***	1.16		-0.05		3.24	**
Men – marriage separation	1-2 years	38.95	***	0.67		2.16		5.08	***
	3-4 years	23.06	***	-0.76		2.61		4.34	***
	5-6 years	22.23	***	1.03		4.19	*	5.16	***
	7-8 years	18.30	***	1.79		3.09		4.22	***
	>8 years	16.28	***	-0.86		-0.13		4.10	***
Men – partner deceased	1-2 years	80.38	***	-0.91		-2.45		12.40	***
	3-4 years	66.33	***	-1.14		3.77		14.76	***
	5-6 years	57.85	***	-6.90		1.51		11.41	***
	7-8 years	56.26	***	-4.46		6.85		11.90	***
	>8 years	51.83	***	-5.07		5.17		14.49	***

Table A.7: Time-effects of relationship endings on different types of social isolation (from linear-probability models with fixed effects, percentage points) (continued)

Women:								
Children[1], 0-1 years	-2.47	***	1.40		1.64		-0.10	
Children, 2-4 years	-2.28	***	2.12	***	-0.80		-0.13	
Children, 5-7 years	-2.11	***	1.53	**	-2.31	***	-0.17	
Children, 8-18 years	-1.65	***	1.47	***	-2.63	***	-0.18	*
Part-time job[2]	0.86		-1.20		-0.87		-0.10	
Not working	-0.15		0.27		3.64		-0.21	
Retired	0.34		-2.54	**	-0.41		-0.06	
Unemployed	0.25		-3.80	***	0.15		-0.39	
Financial strain[3]	0.02		1.33	**	1.68	**	0.31	*
Age 20-24[4]	-4.79	***	0.50		3.45	*	-1.02	**
Age 25-29	-4.91	***	0.78		2.65		-1.56	***
Age 30-34	-5.78	***	1.76		0.12		-1.85	***
Age 35-39	-5.75	***	3.82	**	-3.22		-1.88	***
Age 40-44	-5.36	***	4.92	**	-6.50	**	-2.12	***
Age 45-49	-4.71	**	4.77	**	-5.46	*	-2.03	***
Age 50-54	-4.77	**	4.91	*	-5.66	*	-1.85	**
Age 55-59	-4.32	**	4.25	*	-5.83	*	-1.76	**
Age 60-64	-2.71	*	4.19		-6.79	*	-1.27	
Age 65-69	-0.98		5.87	*	-7.52	*	-0.80	
Age 70-74	0.74		8.36	**	-6.81	*	-1.33	
Age 75-79	3.27	*	12.40	***	-3.31		-0.50	
Age 80-84	8.61	***	17.54	***	1.83		2.22	
Age 85-89	11.92	***	23.07	***	14.42	**	6.80	**
Age 90-94	16.52	***	37.78	***	31.64	***	14.03	**
Age 95 and above	19.67	**	38.61		29.46		41.21	*
Men:								
Children[1], 0-1 years	-0.98	**	3.88	***	4.97	***	0.15	
Children, 2-4 years	0.05		2.50	***	1.10		0.13	
Children, 5-7 years	-0.06		0.93	*	-2.27	***	-0.02	
Children, 8-18 years	0.05		0.43		-2.45	***	-0.06	
Part-time job[2]	-0.65	*	-2.07	***	-3.21	***	-0.13	
Not working	-1.51	***	-2.33	**	-2.22	**	-0.20	
Retired	-1.05	*	-5.00	***	-1.52		-1.04	**
Unemployed	-0.92	*	-5.05	***	-1.86	*	-0.47	
Financial strain[3]	0.98	***	0.80		1.83	***	0.43	**
Age 20-24[4]	-6.74	***	0.96		-0.76		-0.62	
Age 25-29	-5.18	**	1.17		-1.20		-0.82	
Age 30-34	-5.11	**	3.63	*	-0.74		-1.00	*
Age 35-39	-4.75	**	4.09	*	-3.32		-1.29	*
Age 40-44	-4.96	**	6.27	**	-4.57		-1.40	**
Age 45-49	-5.02	**	7.51	**	-6.31	*	-1.34	*
Age 50-54	-5.72	**	9.02	***	-5.84		-1.64	**
Age 55-59	-5.96	**	10.32	***	-5.05		-1.76	**
Age 60-64	-6.16	**	9.90	**	-4.86		-2.01	**
Age 65-69	-6.30	**	9.81	**	-4.74		-1.97	**
Age 70-74	-6.27	**	11.93	***	-2.87		-1.87	*

Table A.7: Time-effects of relationship endings on different types of social isolation (from linear-probability models with fixed effects, percentage points) (continued)

Age 75-79	-5.41	**	16.53	***	0.85		-2.07	**
Age 80-84	-3.94		20.82	***	3.75		-2.14	*
Age 85-89	-2.99		27.58	***	8.49		-1.00	
Age 90-94	5.01		42.21	***	15.43	*	6.11	
Age 95 and above	18.07	**	42.16	*	12.64		31.17	**
Health problems[5]	0.41	*	3.41	***	2.13	***	0.48	***
Relocated[6]	0.93		0.11		0.26		-0.12	
Year:								
Year 1992/1994[7]	0.08		1.39	**	1.83	**	-0.19	
Year 1996/1997	-0.11		-2.31	***	0.17		-0.19	*
Year 2005/2007	0.17		1.38	**	-0.42		0.05	
Year 2009/2011/2015	0.16		3.14	***	0.18		0.12	
R^2	0.45		0.01		0.01		0.06	

*, **, *** significant with p<0.05, 0.01, 0.001
[1] Children living in the same household
[2] Reference is full-time work
[3] Self-reported serious worries about financial circumstances
[4] Reference is Age below 20 years
[5] Self-rated poor health, binary coded, poor or very poor health vs. good, very good, or moderate
[6] Having moved into another dwelling within the last three years
[7] Reference are years 1999 and 2001
Case numbers (all columns): 30730 persons, 149144 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Table A.8: Effects of relationship endings, children, employment, financial strain, relocations, and health on absence of primary-sphere contacts (having no partner and living alone; linear-probability models with fixed effects, percentage points)

	(1)		(2)		(3)		(4)		(5)		(6)	
Women:												
Separation of non-cohab. r.	24.31	***	24.27	***	24.33	***	24.29	***	24.38	***	24.32	***
Separation of live-in relationship	26.14	***	26.08	***	26.13	***	26.15	***	26.38	***	26.14	***
Marriage separation	31.11	***	31.12	***	31.19	***	31.19	***	31.48	***	31.11	***
Partner deceased	78.56	***	78.53	***	78.58	***	78.56	***	78.52	***	78.57	***
Men:												
Separation of non-cohab. r.	21.03	***	21.28	***	21.02	***	21.03	***	21.15	***	21.04	***
Separation of live-in relationship	24.60	***	24.96	***	24.60	***	24.60	***	24.96	***	24.60	***
Marriage separation	27.10	***	28.40	***	27.10	***	27.09	***	27.50	***	27.09	***
Partner deceased	68.06	***	67.92	***	68.07	***	68.06	***	68.04	***	68.08	***
Women:												
Children[1], 0-1 years	-1.87	***			-2.67	***	-1.90	***	-1.90	***	-1.88	***
Children, 2-4 years	-0.56	*			-0.94	***	-0.57	*	-0.66	*	-0.56	*
Children, 5-7 years	-0.12				-0.29		-0.12		-0.25		-0.12	
Children, 8-18 years	0.10				0.04		0.10		0.01		0.10	
Part-time job[2]	-0.72	**	-0.86	*			-0.70	*	-0.70	*	-0.72	**
Not working	-1.82	***	-2.52	***			-1.78	***	-1.80	***	-1.82	***
Retired	-0.97	*	-1.26	*			-0.96	*	-0.95		-0.96	*
Unemployed	-0.72		-0.92				-0.50		-0.66		-0.71	
Financial strain[3]	1.33	***	1.33	***	1.31	***			1.34	***	1.35	***
Men:												
Children[1], 0-1 years	-4.02	***			-4.03	***	-4.02	***	-4.05	***	-4.03	***
Children, 2-4 years	-3.70	***			-3.71	***	-3.70	***	-3.82	***	-3.71	***
Children, 5-7 years	-2.90	***			-2.90	***	-2.90	***	-3.03	***	-2.90	***
Children, 8-18 years	-1.98	***			-1.99	***	-1.98	***	-2.07	***	-1.99	***
Part-time job[2]	0.74		0.81				0.74		0.77		0.74	
Not working	-0.14		-0.24				-0.13		-0.12		-0.07	
Retired	0.35		0.35				0.34		0.36		0.37	
Unemployed	0.26		0.31				0.28		0.27		0.29	
Financial strain[3]	0.12		0.15		0.14				0.11		0.14	
Health problems[4]	0.51	**	0.53	**	0.50	**	0.54	**	0.50	**		
Relocations[5]	3.31	***	3.60	***	3.31	***	3.32	***			3.31	***
R^2	0.40		0.40		0.40		0.40		0.40		0.40	

*, **, *** significant with $p<0.05$, 0.01, 0.001
[1] Children living in the same household
[2] Reference is full-time work
[3] Self-reported serious worries about financial circumstances
[4] Self-rated poor health, binary coded, poor or very poor health vs. good, very good, or moderate
[5] Having moved into another dwelling within the last three years
Further control variables: age (five-year classes) and grouped survey years (1992/1994, 1996/1997, 2005/2007, 2009/2011/2015, reference is 1999/2001)
Case numbers (all columns): 30730 persons, 149144 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Table A.9:   Effects of relationship endings, children, employment, financial strain, relocations, and health on absence of secondary-sphere contacts (disconnectedness from friends and relatives; linear-probability models with fixed effects, percentage points)

	(1)		(2)		(3)		(4)		(5)		(6)	
Women:												
Separation of non-cohab. r.	0.08		0.09		0.09		0.06		0.08		0.10	
Separation of live-in relationship	-1.10		-1.01		-1.13		-1.10		-1.11		-1.08	
Marriage separation	1.29		1.15		1.35		1.33		1.28		1.33	
Partner deceased	-7.41	***	-7.32	***	-7.61	***	-7.41	***	-7.40	***	-7.34	***
Men:												
Separation of non-cohab. r.	-0.90		-1.09		-0.90		-0.90		-0.90		-0.84	
Separation of live-in relationship	-0.73		-1.00		-0.69		-0.72		-0.74		-0.75	
Marriage separation	0.32		-0.51		0.26		0.34		0.31		0.30	
Partner deceased	-2.76		-2.66		-2.82		-2.76		-2.76		-2.64	
Women:												
Children[1], 0-1 years	3.86	***			3.10	***	3.85	***	3.86	***	3.81	***
Children, 2-4 years	2.50	***			1.94	***	2.49	***	2.50	***	2.49	***
Children, 5-7 years	0.89	*			0.56		0.89	*	0.90		0.91	*
Children, 8-18 years	0.43				0.28		0.43		0.43		0.43	
Part-time job[2]	-2.07	***	-1.57	**			-2.07	***	-2.07	***	-2.10	***
Not working	-2.34	***	-0.62				-2.32	***	-2.34	**	-2.31	***
Retired	-5.00	***	-4.22	***			-5.00	***	-5.00	***	-4.90	***
Unemployed	-5.06	***	-4.47	***			-4.93	***	-5.06	***	-5.00	***
Financial strain[3]	0.79	*	0.77		0.57				0.79		0.91	*
Men:												
Children[1], 0-1 years	1.47	*			1.47	*	1.46	*	1.47	*	1.44	*
Children, 2-4 years	2.18	***			2.19	***	2.17	***	2.18	***	2.17	***
Children, 5-7 years	1.57	**			1.57	**	1.57	**	1.57	**	1.56	**
Children, 8-18 years	1.48	***			1.50	***	1.47	***	1.48	***	1.46	***
Part-time job[2]	-1.20		-1.24				-1.15		-1.20		-1.19	
Not working	0.28		0.31				0.45		0.28		0.74	
Retired	-2.56	**	-2.56	**			-2.52	**	-2.56	**	-2.42	**
Unemployed	-3.80	***	-3.84	***			-3.54	***	-3.80	***	-3.62	***
Financial strain[3]	1.33	**	1.31	**	1.09	**			1.33	**	1.49	**
Health problems[4]	3.41	***	3.38	***	3.34	***	3.46	***	3.41	***		
Relocations[5]	-0.07		-0.33		-0.13		-0.07				-0.09	
R^2	0.01		0.01		0.01		0.01		0.01		0.01	

*, **, *** significant with p<0.05, 0.01, 0.001
[1] Children living in the same household
[2] Reference is full-time work
[3] Self-reported serious worries about financial circumstances
[4] Self-rated poor health, binary coded, poor or very poor health vs. good, very good, or moderate
[5] Having moved into another dwelling within the last three years
Further control variables: age (five-year classes) and grouped survey years (1992/1994, 1996/1997, 2005/2007, 2009/2011/2015, reference is 1999/2001)
Case numbers (all columns): 30730 persons, 149144 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Table A.10: Effects of relationship endings, children, employment, financial strain, relocations, and health on absence of tertiary-sphere contacts (non-participation in clubs and civil organizations; linear-probability models with fixed effects, percentage points)

	(1)		(2)		(3)		(4)		(5)		(6)	
Women:												
Separation of non-cohab. r.	-0.55		-0.17		-0.46		-0.59		-0.54		-0.53	
Separation of live-in relationship	0.71		0.82		0.78		0.72		0.74		0.72	
Marriage separation	3.33	**	3.11	*	3.54	**	3.44	**	3.38	**	3.35	**
Partner deceased	-2.96	**	-2.93	*	-2.96	**	-2.96	**	-2.96	*	-2.92	**
Men:												
Separation of non-cohab. r.	3.62	***	4.01	**	3.63	***	3.61	***	3.64	**	3.66	***
Separation of live-in relationship	-1.24		-0.72		-1.22		-1.22		-1.20		-1.25	
Marriage separation	2.20	*	3.27	*	2.19	*	2.22	*	2.25		2.18	*
Partner deceased	1.56		1.40		1.56		1.55		1.56		1.63	
Women:												
Children[1], 0-1 years	4.93	***			4.36	***	4.89	***	4.92	***	4.89	***
Children, 2-4 years	1.07	*			0.58		1.06	*	1.06		1.07	*
Children, 5-7 years	-2.27	***			-2.63	***	-2.27	***	-2.28	***	-2.25	***
Children, 8-18 years	-2.46	***			-2.65	***	-2.46	***	-2.47	***	-2.46	***
Part-time job[2]	-3.20	***	-3.21	***			-3.18	***	-3.20	***	-3.22	***
Not working	-2.22	**	-0.22				-2.17	**	-2.22	**	-2.20	**
Retired	-1.50		-0.95				-1.49		-1.50		-1.44	
Unemployed	-1.85	**	-1.43				-1.54	*	-1.84	*	-1.81	*
Financial strain[3]	1.85	***	1.81	***	1.81	***			1.85	***	1.93	***
Men:												
Children[1], 0-1 years	1.65	*			1.69	*	1.64	*	1.65		1.63	*
Children, 2-4 years	-0.79				-0.79		-0.80		-0.81		-0.80	
Children, 5-7 years	-2.32	***			-2.32	***	-2.31	***	-2.33	***	-2.32	***
Children, 8-18 years	-2.65	***			-2.65	***	-2.66	***	-2.66	***	-2.66	***
Part-time job[2]	-0.87		-0.83				-0.81		-0.87		-0.87	
Not working	3.64	*	3.81	*			3.85	*	3.64		3.93	*
Retired	-0.39		-0.40				-0.35		-0.39		-0.31	
Unemployed	0.13		0.22				0.46		0.13		0.24	
Financial strain[3]	1.69	***	1.71	**	1.72	***			1.68	**	1.78	***
Health problems[4]	2.13	***	2.12	***	2.16	***	2.21	***	2.12	***		
Relocations[5]	0.45		1.01		0.42		0.44				0.43	
R^2	0.01		0.01		0.01		0.01		0.01		0.01	

*, **, *** significant with p<0.05, 0.01, 0.001
[1] Children living in the same household
[2] Reference is full-time work
[3] Self-reported serious worries about financial circumstances
[4] Self-rated poor health, binary coded, poor or very poor health vs. good, very good, or moderate
[5] Having moved into another dwelling within the last three years
Further control variables: age (five-year classes) and grouped survey years (1992/1994, 1996/1997, 2005/2007, 2009/2011/2015, reference is 1999/2001)
Case numbers (all columns): 30730 persons, 149144 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Table A.11: Effects of relationship endings, children, employment, financial strain, relocations, and health on isolation from all social spheres (linear-probability models with fixed effects, percentage points)

	(1)		(2)		(3)		(4)		(5)		(6)	
Women:												
Separation of non-cohab. r.	2.06	***	2.07	***	2.06	***	2.05	***	2.06	***	2.07	***
Separation of live-in relationship	3.88	***	3.88	***	3.87	***	3.88	***	3.87	***	3.88	***
Marriage separation	4.62	***	4.61	***	4.62	***	4.65	***	4.61	***	4.63	***
Partner deceased	10.20	***	10.20	***	10.14	***	10.20	***	10.20	***	10.21	***
Men:												
Separation of non-cohab. r.	1.33	**	1.36	**	1.33	**	1.33	**	1.33	**	1.34	**
Separation of live-in relationship	2.83	***	2.87	***	2.83	***	2.83	***	2.82	***	2.83	***
Marriage separation	4.68	***	4.79	***	4.68	***	4.68	***	4.67	***	4.68	***
Partner deceased	13.03	***	13.02	***	13.04	***	13.03	***	13.03	***	13.05	***
Women:												
Children[1], 0-1 years	0.07				0.00		0.06		0.07		0.06	
Children, 2-4 years	0.11				0.06		0.11		0.11		0.11	
Children, 5-7 years	-0.01				-0.04		-0.01		-0.01		-0.01	
Children, 8-18 years	-0.05				-0.06		-0.05		-0.05		-0.05	
Part-time job[2]	-0.12		-0.11				-0.12		-0.12		-0.13	
Not working	-0.19		-0.14				-0.18		-0.19		-0.19	
Retired	-1.01	***	-0.99	**			-1.01	***	-1.01	**	-1.00	***
Unemployed	-0.45	*	-0.43				-0.37		-0.45		-0.44	
Financial strain[3]	0.46	**	0.46	**	0.45	**			0.46	**	0.48	***
Men:												
Children[1], 0-1 years	-0.20	**			-0.20	**	-0.20	**	-0.20	*	-0.20	**
Children, 2-4 years	-0.21	**			-0.21	**	-0.21	**	-0.21	*	-0.21	**
Children, 5-7 years	-0.22	**			-0.22	**	-0.22	**	-0.21	*	-0.22	**
Children, 8-18 years	-0.20	**			-0.20	**	-0.20	**	-0.20	*	-0.21	**
Part-time job[2]	-0.09		-0.08				-0.08		-0.09		-0.08	
Not working	-0.20		-0.20				-0.16		-0.20		-0.14	
Retired	-0.05		-0.05				-0.04		-0.05		-0.03	
Unemployed	-0.38	*	-0.38				-0.32		-0.38		-0.36	*
Financial strain[3]	0.31	**	0.31	*	0.28	**			0.31	*	0.33	**
Health problems[4]	0.48	***	0.48	***	0.47	***	0.50	***	0.48	***		
Relocations[5]	-0.10		-0.07		-0.11		-0.10				-0.10	
R[2]	0.05		0.05		0.05		0.05		0.05		0.05	

*, **, *** significant with p<0.05, 0.01, 0.001
[1] Children living in the same household
[2] Reference is full-time work
[3] Self-reported serious worries about financial circumstances
[4] Self-rated poor health, binary coded, poor or very poor health vs. good, very good, or moderate
[5] Having moved into another dwelling within the last three years
Further control variables: age (five-year classes) and grouped survey years (1992/1994, 1996/1997, 2005/2007, 2009/2011/2015, reference is 1999/2001)
Case numbers (all columns): 30730 persons, 149144 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Table A.12: Moderation of effects of relationship endings by region, migration background, and age (linear-probability models with fixed effects, percentage points)

	Primary sphere: no partner and living alone		Secondary sphere: disconnectedness from friends and relatives	
	(1)	(2)	(3)	(4)
Women:				
Separation of non-cohab. r.	26.44 ***	25.14 ***	0.26	-0.35
* East Germany	-4.62		-0.59	
* migration background	-5.63		-0.21	
* age < 30		-8.24 **		1.36
* age > 45		8.18 *		-0.14
Separation of live-in relationship	25.64 ***	27.44 ***	-0.27	-1.31
* East Germany	3.21		-1.77	
* migration background	-2.83		-2.47	
* age < 30		-9.18 **		2.39
* age > 45		9.53 *		-3.15
Marriage separation	31.90 ***	30.44 ***	1.76	0.07
* East Germany	-3.33		-2.07	
* migration background	13.53 ***		1.16	
* age < 30		-12.96 ***		-1.39
* age > 45		6.11		1.12
Partner deceased	79.94 ***	49.41 ***	-7.74 ***	0.36
* East Germany	-1.89		1.68	
* migration background	-4.74		-0.13	
* age < 30		-25.46		0.89
* age > 45		31.60 ***		-0.59
Men:				
Separation of non-cohab. r.	21.00 ***	18.92 ***	-1.46	-1.90
* East Germany	1.15		1.40	
* migration background	-0.07		-0.32	
* age < 30		-3.59		1.77
* age > 45		10.88 **		1.43
Separation of live-in relationship	22.75 ***	24.54 ***	-0.80	-0.34
* East Germany	3.22		-1.47	
* migration background	5.65		3.09	
* age < 30		-3.85		-0.53
* age > 45		7.44 *		-0.10
Marriage separation	24.70 ***	26.21 ***	-0.04	2.02
* East Germany	3.81		-0.76	
* migration background	9.01 *		3.15	
* age < 30		-9.40 *		-2.42
* age > 45		1.13		-3.58
Partner deceased	66.98 ***	55.23 ***	-5.66 *	-7.96 *
* East Germany	6.31		2.81	
* migration background	-4.99		4.09	
* age < 30		-3.71		1.42
* age > 45		12.98 *		1.91
R^2	0.40	0.41	0.01	0.01

*, **, *** significant with $p<0.05$, 0.01, 0.001
Control variables as in Table A7
Case numbers (all columns): 30730 persons, 149144 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Table A.12: Moderation of effects of relationship endings by region, migration background, and age (linear-probability models with fixed effects, percentage points) (continued)

	Tertiary sphere: non-participation in clubs and civil organizations		Isolation from all three spheres	
	(5)	(6)	(7)	(8)
Women:				
Separation of non-cohab. r.	-0.81	-1.05	2.64 ***	1.97 *
* East Germany	0.80		-1.06	
* migration background	0.51		-1.30	
* age < 30		-0.24		-0.97
* age > 45		2.25		1.75
Separation of live-in relationship	-1.14	1.24	3.59 ***	2.76 **
* East Germany	4.94		1.22	
* migration background	3.95		-0.27	
* age < 30		-2.11		-0.80
* age > 45		1.27		7.08 *
Marriage separation	3.90 **	4.32 **	4.10 ***	3.77 ***
* East Germany	-2.53		2.36	
* migration background	-0.13		0.22	
* age < 30		1.32		-2.47 *
* age > 45		-1.20		3.72 *
Partner deceased	-3.71 *	-3.16	10.01 ***	5.00 *
* East Germany	1.37		1.55	
* migration background	-1.03		-1.85	
* age < 30		1.57		-11.36
* age > 45		0.45		5.72 *
Men:				
Separation of non-cohab. r.	2.85 *	3.16	1.30 *	0.55
* East Germany	1.55		1.00	
* migration background	2.06		-0.71	
* age < 30		0.95		0.05
* age > 45		0.14		2.50
Separation of live-in relationship	-1.96	-0.29	2.83 **	1.37
* East Germany	2.97		-1.29	
* migration background	-0.71		2.05	
* age < 30		-0.46		-0.16
* age > 45		0.81		8.48 **
Marriage separation	3.21 *	3.64 *	4.38 ***	3.99 ***
* East Germany	-2.60		0.79	
* migration background	-2.16		1.15	
* age < 30		-0.80		-3.10 **
* age > 45		-0.71		1.82
Partner deceased	1.63	8.17	13.19 ***	11.38 *
* East Germany	-2.62		0.95	
* migration background	5.92		1.81	
* age < 30		-0.92		-11.43 *
* age > 45		-0.73		1.85
R^2	0.01	0.01	0.06	0.06

*, **, *** significant with $p<0.05$, 0.01, 0.001
Control variables as in Table A7
Case numbers (all columns): 30730 persons, 149144 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Table A.13: Time-effects of relationship endings on isolation from all three social spheres, by age (linear-probability models with fixed effects, percentage points)

			Men		Women	
Separation of live-in relationship	Age below 30	1-2 years	2.39	*	2.33	**
		3-4 years	0.63		-0.10	
		5-6 years	0.50		3.16	*
		7-8 years	-0.20		2.55	
		>8 years	0.06		1.93	
	Age 30 to 55	1-2 years	1.76		4.20	**
		3-4 years	0.76		1.00	
		5-6 years	0.99		2.16	
		7-8 years	3.25		4.44	*
		>8 years	2.53		4.19	*
	Age 55 and above	1-2 years	13.14	**	8.73	**
		3-4 years	8.17	*	11.26	**
		5-6 years	12.10	*	9.66	*
		7-8 years	10.17	*	12.90	*
		>8 years	7.48	*	12.27	*
Marriage separation	Age below 30	1-2 years	1.14		3.99	*
		3-4 years	0.31		-0.49	
		5-6 years	0.43		-0.27	
		7-8 years	0.43		0.42	
		>8 years	1.22		-1.03	
	Age 30 to 55	1-2 years	5.02	***	5.50	***
		3-4 years	4.19	***	3.25	**
		5-6 years	4.70	**	3.46	**
		7-8 years	3.34	**	2.24	
		>8 years	2.20		2.10	
	Age 55 and above	1-2 years	5.92	**	8.65	***
		3-4 years	5.35	**	6.01	**
		5-6 years	6.65	**	8.14	**
		7-8 years	6.15	**	6.82	**
		>8 years	7.08	**	8.45	**
Partner deceased	Age below 65	1-2 years	9.73	**	8.44	***
		3-4 years	13.62	***	7.96	***
		5-6 years	9.68	**	7.50	***
		7-8 years	9.05	**	7.55	**
		>8 years	13.26	***	11.14	***
	Age 65 and above	1-2 years	13.84	***	11.33	***
		3-4 years	13.92	***	10.65	***
		5-6 years	12.51	**	13.69	***
		7-8 years	14.77	**	10.27	***
		>8 years	15.52	**	14.98	***
R^2			0.01		0.01	

*, **, *** significant with p<0.05, 0.01, 0.001
Control variables as in Table A7
Case numbers: 30730 persons, 149144 observations
Data: German Socio-economic Panel 1992-2015 (Sub-sample 2, see Table 1)

Information in German

Deutscher Titel

Soziale Isolation als Folge von partnerschaftsbiographischen Ereignissen: Wie das Risiko sozialer Kontaktarmut von Partnerschaftsgründungen und Partnerschaftsauflösungen beeinflusst wird

Zusammenfassung

Fragestellung: Die Studie untersucht, inwiefern das Risiko sozialer Isolation von Partnerschaftsgründungen, Eheschließungen und Partnerschaftsauflösungen beeinflusst wird.

Hintergrund: Soziale Isolation ist zwar ein vieldiskutiertes soziales Problem, aber dennoch weiß man noch kaum etwas über die Entstehungshintergründe sozialer Isolation. Dies betrifft unter anderem die Rolle von partnerschaftsbiographischen Ereignissen. In der bisherigen Forschung sehr unterschiedlich beurteilt wird unter anderem die Frage, ob es isolierende Effekte von Eheschließungen, Trennungen oder Verwitwungen gibt.

Methode: Auf der Grundlage des Sozio-ökonomischen Panels wird der Einfluss partnerschaftsbiographischer Übergänge mit Blick auf verschiedene Erscheinungsformen sozialer Isolation (fehlender Kontakt zu befreundeten und verwandten Personen, fehlende Einbindung in zivilgesellschaftliche Organisationen) untersucht. Die Auswertungen zum Einfluss von Partnerschaftsgründungen und Eheschließungen greifen auf Informationen zu 11359 Personen zurück, die Auswertungen zum Einfluss von Partnerschaftsauflösungen auf Information zu 30730 Personen.

Ergebnisse: Keine isolierenden Effekte lassen sich in Bezug auf Partnerschaftsgründungen und Eheschließungen aufzeigen. Partnerschaftsauflösungen hingegen erhöhen das Risiko einer übergreifenden sozialen Isolierung im Sinne von fehlenden Kontakten sowohl zu Freunden und Verwanden als auch zu zivilgesellschaftlichen Organisationen.

Schlussfolgerung: Zusammengefasst deuten die Ergebnisse darauf hin, dass extremere Formen sozialer Isolation häufig daraus resultieren, dass soziale Kontakte während einer Paarbeziehung auf den Partner oder die Partnerin eingeschränkt werden und nach dem Paarbeziehungsende eine Re-Integration in umgebende soziale Netzwerke ausbleibt. Es ist zu vermuten, dass dies eine typische Entstehungsform sozialer Isolation ist.

Schlagwörter: Ehe, Partnerschaftsbeziehungen, Scheidung, Einsamkeit, Dyadischer Rückzug, Soziale Isolation