

## Joint social contact and network overlap of spouses facing later adulthood household transitions in Switzerland

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### ABSTRACT

Personal network overlap and joint social contact of spouses have positive implications for social support and marital quality. Although these collective aspects of marriage constitute a valuable resource for couples, the factors impacting them during the later stages of life are underexplored. When faced with critical role losses in later life one compensatory mechanism for internal continuity is to jointly invest in relational dimensions of one's marriage. Accordingly, this research hypothesizes that some later adulthood transitions lead to greater overlap in conjugal networks and more joint contact between partners. Using two waves of data from a nationally representative sample of Swiss couples, it was found that both transitions of children leaving the household and retirement were related to increases in personal network overlap and shared social contact between partners but differently for male and female partners. Results are discussed in the light of mechanisms promoted by continuity theory.

### 1. Introduction

Marriage has consistently been shown to promote health and happiness as well as mitigate stress and dissatisfaction (Becker & Becker, 2009; Stack & Eshleman, 1998; Waite & Gallagher, 2002). Spousal relationships are particularly salient in Western cultures because they are linked with a series of functions including co-parenting, emotional and financial support, companionship, and fulfillment of identity needs (Berger & Kellner, 1964). Because marriage occupies a central position in the social lives of individuals and their self-concept, it provides a strong impetus for partners to merge their respective personal social networks into a larger shared network during the early stages of family life (Kalmijn, 2003).

Personal networks are defined as the collection of social relations that one maintains and from which one receives supports of various kinds (Litwin, Levinsky, & Schwartz, 2020). Although these networks typically consist of close family and friends, their composition has been shown to change as individuals undergo major life transitions that feature critical role losses in the domains of family and work (Roth, 2020b) - transitions which may challenge the continuity of the self-concept and well-being (Kim & Moen, 2002). Given the importance of shared personal networks between spouses for well-being (Fiori,

Antonucci, & Cortina, 2006, 2017), one may expect that role losses associated with key life course transitions in older adulthood will be compensated by increases in personal network overlap among spouses. Furthermore, the amount of time that spouses jointly spend interacting with friends and kin highlights the extent to which shared network ties are integral to maintaining shared social lives. Although considerable life course research suggests that older adults alter their time use as they undergo various later life transitions (Cornwell, 2011; Marcum, 2013), minimal research investigates how married partners collectively allocate their leisure time to socialize with friends and kin in the wake of role losses that potentially endanger the continuity of their self-concept.

In the current study, we analyze longitudinal data from the Social Stratification, Cohesion, and Conflict in Contemporary Families study (author) to address the issues above. Specifically, we consider two critical household transitions that we hypothesize will influence changes in the social activity of married partners: the departure of children from the familial home and retirement. Building on continuity theory, we assess whether these household transitions are associated with critical changes in the overlap of personal networks of spouses.

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## 2. Background

### 2.1. Personal network overlap

Personal networks have as their focus the social relations of individuals (Litwin et al., 2020). They are ego-centered sets of relationships that develop individualized character over the life course (Rainie & Wellman, 2012). Within a marriage, some of these relationships are specific to each spouse (Widmer, 2004). For instance, each spouse may maintain relatively independent social relationships that were established either before marriage (e.g., childhood friends) or within the confines of unshared social settings (e.g., work, volunteer groups). Although network ties may initially be established through a single spouse, married partners are often jointly connected to many of the same friends and kin (Kalmijn, 2003). Personal network overlap, therefore, refers to the degree to which each spouse's social ties are shared by the other.

To address the issue of the shared versus unshared relational environment between partners, scholars have investigated the extent to which individuals in one partner's network are members of the other partner's network (Bott, 1957; Kalmijn, 2003; Milardo, 1986; Sprecher & Felmlee, 2000; Stadtfeld & Pentland, 2015; Stein, Bush, Ross, & Ward, 1992). Research in this area suggests that as partners progress through the stages of a romantic relationship, they tend to merge their respective personal networks into a larger supradyadic network by either shedding previously held independent ties or forming new ties with friends in common. Many studies focus primarily on the early foundational stages of partnership (e.g., dating, cohabitation, marriage) (e.g., Felmlee, 2001; Milardo, 1986; Stein et al., 1992). Minimal attention, meanwhile, has been given to the later stages of marriage even though personal networks are prone to change throughout the life course, including into later life (Cornwell, Goldman, & Laumann, 2020; Wellman, Wong, Tindall, & Nazer, 1997). Among the few gerontological studies observing network overlap, Cornwell (2012) used cross-sectional data to show that the degree to which spouses' personal networks overlapped was positively related to the perceived level of support they could derive from one another. Given the dynamic nature of personal networks—as well as the value in spouses sharing ties to the same people—we draw attention towards network overlap in the later stages of marriage.

There are several potential mechanisms responsible for greater personal network overlap among married partners in older adulthood. The proximity principle (Festinger, Schachter, & Back, 1950; Newcomb, 1960) stresses that individuals tend to keep significant relationships with people who have been spatially close to them and with whom they have had frequent face-to-face interactions at some crucial points of their life course. The social convoy model (Antonucci & Akiyama, 1995), meanwhile, states that such relations may remain significant for life, across stages and transitions, depending on their functional importance (emotional value, presence of support and exchanges). The convoy model places individuals within a set of concentric circles that represent different levels of social relationships (Antonucci, Ajrouch, & Birditt, 2013). Closer relationships are based on emotional attachment and follow the focal individual throughout life in a convoy-like fashion. Relationships in the outer circles are based on role requirements associated with participation in specific social fields and are present in people's lives out of convenience (Antonucci, Akiyama, & Takahashi, 2004). Whereas the proximity principle focuses largely on contextual circumstances (i.e., spatial proximity), the convoy model emphasizes the functional aspects of social relationships (e.g., emotional support). Yet both perspectives hold that transitions out of social roles will result in the dissolution of peripheral relationships while central relationships remain constant (Antonucci & Akiyama, 1987b). Spouses may come to share their personal networks with each other to a growing extent in later life when more peripheral ties that were previously maintained through obligations stemming from social roles diminish (e.g., ties to co-workers). This is congruent with the mechanisms postulated by

continuity theory which points towards well-being and identity maintenance in later life (Atchley, 1989). According to continuity theory, middle-aged and older adults attempt to preserve their self-concept when facing role losses by strengthening their familiar relationships such as their partnership (Henning, Lindwall, & Johansson, 2016; Kim & Moen, 2002). Partners may accordingly assume a more central role in each other's social lives, therefore leading to increases in network overlap.

### 2.2. Joint social contact

Although often ignored by studies on spousal networks, it is further instructive to consider the degree to which spouses engage in joint social contact with their shared personal network members (Cornwell, 2011). This is an important distinction from network overlap as most married individuals tend to know the majority of their spouse's friends (Kalmijn, 2003). Yet the mere presence of a shared tie says nothing of the intensity of interaction. For instance, a husband may consider himself to be socially connected to his wife's friends even if the wife frequently visits her friends in the absence of her husband. Conversely, friends with whom spouses consistently interact in joint company are likely to hold more central roles in the married couple's social lives compared to friends who primarily spend time with only one of the two spouses. Routine face-to-face interactions in a group setting can ease coordination of social resources within a network, build trust and value consensus among spouses, and decrease the likelihood of marriage infidelity (Cornwell, 2012; Treas & Giesen, 2000). Therefore, attention should be devoted to the spouses' amount of joint social contact in addition to the mere presence of network overlap. Similar to how role loss impacts network formation in later life, we anticipate that the spouses will look to spend more time in each other's presence in the wake of later life transitions because their bond constitutes a factor of continuity. Additionally, spouses experiencing such transitions should have more free time to devote to joint social contact with friends and kin. In the current study, we conceptualize social contact as in-person visits. Even though contact could be considered via other means (e.g., phone calls, e-mail), such communication is less likely to occur jointly compared to in-person visits.

### 2.3. Household transitions

Married couples typically undergo a set of ordered, age-graded stages featuring specific developmental tasks (Aldous, 1996). Such developmental stages include the establishment of the couple; living with pre-school children, school-age children, and adolescents; the launching of adult children; and the post-parental and retirement phases. Transitions into new developmental stages represent critical times which require resources, some of which may be drawn from personal networks. For instance, parenthood often requires partners not only to rely on one another to provide care for their child but also to receive aid (e.g., instrumental, emotional) from others that can be used to raise their child (Small, 2009). In the event of a health decline, meanwhile, the care-giving spouse may look to their personal network to elicit help from friends and family members (Roth, 2020a). Although prior research has investigated the early transitions in romantic partnerships (Kalmijn, 2003; Milardo, 1982; Stadtfeld & Pentland, 2015), few studies focus on how shared life transitions shape married couples' personal networks during the later stages of family development (c.f. Kalmijn, 2012).

### 2.4. Empty nest

The emptying of the familial nest signals departure from the child-caring role. Just as the birth of children changes the social roles of married partners, so too can their departure from the familial home (Kalmijn, 2012). Empty nesters are no longer required to coordinate efforts around their children. Depending on the division of labor, these

tasks may have enabled partners to develop relatively independent social ties in the child-oriented domains. For instance, mothers who are responsible for transporting their children to daycare have been found to form ties with other mothers in this setting (Small, 2009). Consequently, the transition out of an active parental role—which results in withdrawal from such child-oriented domains—increases the likelihood of dissolving relationships with network members formed in these domains. In accordance with the proximity principle and the convoy model, these relatively peripheral ties will be more easily dissolved, especially as they involve less face-to-face interactions. Because these relationships are likely to be independently maintained by a single spouse (Kalmijn, 2012), their dissolution is expected to lead to an increase in overlap between personal networks of spouses and to spouses making more social contacts together. In addition to the shift away from child-oriented domains, daily life around the home also changes when the final child eventually moves out. What was once a family household (parents + n children living together) becomes a dyad, thus altering the social dynamics between spouses (Mattessich & Hill, 1987; Simmel, 1955). In order to compensate the void created by the loss of an active parental role and daily interactions with children, many empty nesters may try to increase the contribution of their partnership to interactions with kinship members or friends.

## 2.5. Retirement

Retirement signals the loss of another noteworthy social role given that participation in the labor force critically contributes to self-identity and well-being in later adulthood (Kim & Moen, 2002). The transition away from the occupational domain tends to shift focus from work-oriented contact to family-oriented contact (Kalmijn, 2012; Van Tilburg, 2003). The social convoy model holds that the cessation of the producer role results in the dissolution of peripheral ties to former co-workers. The proximity principle argues along similar lines by explaining how recent retirees' departure from the occupational domain decreases daily opportunities to maintain contact with co-workers. Continuity theory, meanwhile, posits that investing in social interactions that include one's spouse promotes continuity in the self-concept and identity of individuals despite the role losses (Kim & Moen, 2002). By the same token, the increase in leisure time provides the opportunity for the retiring spouse to become more invested in a dense network of family and close friends (Cornwell, 2009). Ultimately, the dissolution of ties to coworkers (who are less likely to be connected to the partner than other ties) plus the potential increase in contact with family and friends is expected to lead to an increase in network overlap between spouses as well as an increase in joint contact with family and friends.

## 2.6. Gendered mechanisms of network change

A wide body of literature indicates that men and women approach social relationships differently (Ridgeway & Smith-Lovin, 1999). Throughout the life course, women typically maintain larger, more emotionally supportive personal networks than men (Antonucci & Akiyama, 1987a; Cornwell, Laumann, & Schumm, 2008; Stevens & Van Tilburg, 2011). Men are more likely to incorporate work-related contacts into their networks (Fischer & Oliker, 1983). However, these ties deteriorate easily upon retirement (Kalmijn, 2012). At the same time, men often report having fewer ties to close friends than women. In a nationally-representative study of older Americans, Cornwell et al. (2008) found that men have proportionately more ties to primary group members than women while having smaller personal networks than women. Similarly, a study focusing on older Europeans found that men tended to include a higher proportion of family members in their networks over time (Schwartz & Litwin, 2018). Not only is there a notable gendered pattern in network formation, but research also suggests that marriage plays a more pivotal role in social involvement for men than it

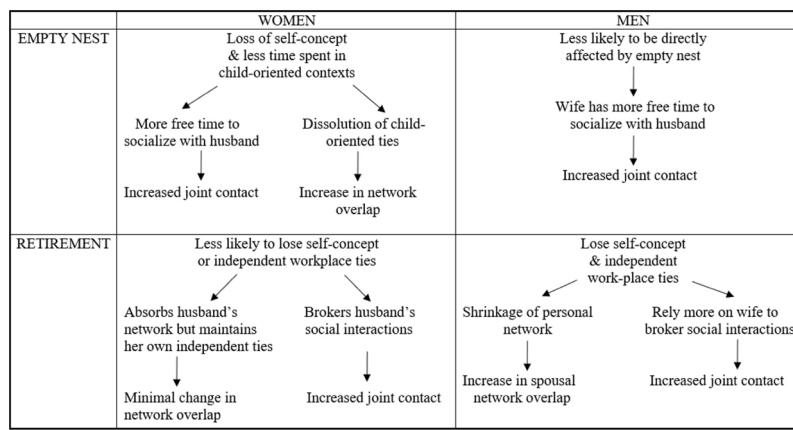
does for women as men tend to rely on their wives for confidant support more than women do on their husbands (Dykstra & Gierveld, 2004).

The loss of an active parental role might have a greater effect on the networks that wives share with their partner. Research shows that in most European countries there is unequal involvement in household tasks and the care of children as wives assume most of the responsibility of family work. This is particularly relevant in the Swiss context, where most women—who are either homemakers or work part time—are more heavily involved in childcare than men (Levy & Widmer, 2013). When children leave the parental home, the focus of women's sociability stemming from childcare (e.g., socializing with other mothers, grandparents, etc.) is expected to weaken in favor of interactions shared with their husbands (Small, 2009). The departure of children from the familial home will also lead to an increase in free time which allows wives and husbands to spend more time socializing with their family (including, but not limited to, the departing child) and friends. Despite the hypothesized increases in joint contact for both spouses, women are more likely to lose child-oriented network ties (e.g., ties to mothers of their child's friends) compared to men. The potential shrinking of wives' personal networks should lead to an increase in network overlap with their husbands (top-left panel of Fig. 1). Husbands, who are less involved in the childcare role, are expected to experience minimal changes in network overlap given that they were less likely to maintain unshared network ties than their wives prior to the empty nest transition (top-right panel of Fig. 1).

The transition to retirement, meanwhile, leads to opposite predictions. Given that men often lose more friends in the transition to retirement than women (Kalmijn, 2012), they may be more likely to rely on their wives as brokers for social interaction in post-retirement life. Women, meanwhile, maintain a large number of kinship ties and independent friendships into later life (Fischer & Beresford, 2015). Because they have larger networks, wives are likely able to absorb most of their husbands' network ties and still maintain independent ties of their own. Additionally, because men work full time more often than women in Switzerland (Sapin, Spini, & Widmer, 2007), the loss of the producer role may prove more consequential for their sociability, which is often achieved within the workplace. Therefore, women's networks are more likely to remain intact after the transition to retirement. In this perspective, retiring husbands are expected to report a proportionally greater increase in personal network overlap than wives (bottom-right panel of Fig. 1), while retiring wives will report a proportionally smaller increase in their personal network overlap with the one of their husbands (bottom-left panel of Fig. 1). Husbands' reliance on wives to broker social interactions, however, should lead to similar increases in joint contact for both partners. Fig. 1 presents an overview of these proposed gendered mechanisms. It shows the mechanisms for both transitions.

## 2.7. Aims of the study

Based on the assumption that marriage is a factor of continuity when facing key role losses of older adulthood, the main research question in this study is whether household transitions to an empty nest and retirement are associated with the overlap of spouses' personal networks and joint contact with their network members, and whether these associations differ between husbands and wives. We hypothesize the departure of children from the familial home to be positively associated with personal network overlap between spouses and with joint contact with family and friends. This transition shifts focus away from child-oriented domains therefore making a series of peripheral ties less relevant. Furthermore, spouses whose child(ren) leave the familial home should have more free time to jointly participate in social interactions with friends and family. For similar reasons, we hypothesize retirement to be positively associated with greater network overlap and joint contact for spouses. Finally, taking a gender perspective, we examine the different experiences of husbands and wives during the two transitions.



**Fig. 1.** Proposed gendered mechanisms of joint contact and personal network overlap between spouses following transition to empty nest and to retirement.

Because men's life trajectories in Switzerland are more focused on paid work and women's trajectories are focused more on family work, we expect that children leaving home will have a greater effect on wives whereas retirement will have a greater effect on husbands.

### 3. Methods

#### 3.1. Data

We use data from the Social Stratification, Cohesion and Conflict in Contemporary Families, a nationally representative survey of heterosexual married and unmarried couples in Switzerland funded by the Swiss National Science Foundation (Widmer, Kellerhals, Levy, Ernst Stähli, & Hammer, 2003). Conducted for the first time in 1998, the study's primary goal was to examine how cohesion and conflicts in couples are influenced by partners' social status and position in the life course (Widmer, Kellerhals, & Levy, 2006, b, Widmer, Kellerhals, & Levy, 2004). The initial sample of 1998 was drawn randomly using a non-proportional stratified design based on the three major linguistic areas of Switzerland. A computer assisted telephone survey questionnaire was translated in the three major idioms of Switzerland (German, French and Italian). The participants provided informed consent prior to being interviewed in the survey.

To be included in the 1998 sample, respondents had to be living together for at least one year; the youngest partner had to be at least 20 years old, and the oldest partner had to be less than 70 years old; they had to be living in Switzerland, but Swiss citizenship was not necessary. It is noteworthy that having children or being married were not conditions to be included in the sample, with 9% couples cohabiting outside marriage, 16 % couples being childless and 30 % not having children in the home. For each couple, both partners were interviewed separately and were asked to answer most questions. Only cases where both partners agreed to be interviewed were included in the survey. Interviews were carried out by phone for a total of 3068 respondents from 1534 couples. On most questions, both partners had to provide an answer although questions about the household characteristics were only asked to one partner to save interview time. Overall, the initial sample has demographic features similar to those of other surveys and microcensuses made at the same time on households and families in Switzerland (ESPA, 1997; OFS, 1998).

Since the 1998 baseline survey, three additional waves have been collected in 2004, 2011 and 2017. The initial study was not planned as longitudinal but the opportunity to organize a follow-up with a few questions arose in 2004 with interviews of female partners from the 1998 dataset only, due to budgetary constraints. In 2011 and 2017, thanks to the financial support of NCCR LIVES (Swiss National Centre of

Competence in Research "LIVES – Overcoming Vulnerability: Life Course Perspectives"), three additional waves of interviews were made possible, with a total number of 1089 women interviewed in 2004, each representing her couple, 2341 respondents stemming from 1414 couples in 2011, and 1762 respondents stemming from 954 couples in 2017. The initial obligation of having both partners participating in the survey was dropped in the follow-up waves in order to include interviews from individuals who were no longer partnered together, and also to be able to sustain an acceptable response rate. Data for the first three waves are available at the Swiss Center of expertise in the social sciences (FORS: <https://forscenter.ch/data-services/>) through request (Kellerhals, Levy-Storms, Widmer, & Gouveia, 2011). The fourth wave will be added in the near future.

The current study focused on wave 3 (2011) and wave 4 (2017) of the survey which asked both partners separately about their personal networks and the extent to which they jointly spend time in the company of friends and family. Our analytic sample included 394 couples who had children and were married during both waves and for which answers from both partners were available. The average age for men was 55.6 years (SD 12.9; range 22–82) and for women was 52.4 years (SD 13.6; range 22–82). Respondents were primarily German speaking (50.1 %), followed by French (35.5 %), and finally Italian (14.4 %). More than half the husbands (57 %) had a high school diploma or higher education compared to 34 % of the wives which corresponds to findings from similar cohort studies conducted in Switzerland.

Attrition analysis was performed to test for differences between persons who participated at baseline and those who did not continue to participate as a couple at the following wave (Schwartz & Shrira, 2019). We compared the two groups in relation to the study variables. Dichotomous and ordinal variables were analyzed using chi-square tests and continuous variables were analyzed using t-tests. The results of the attrition analysis appear in Supplementary Table 1. Among those who participated at follow-up, the husbands had a significantly ( $p < 0.05$ ) higher level of education. Wives were less likely to report being "always together" with friends. Both husbands and wives had more friends. There were no significant differences in terms of wives' education, marital quality, number of kin ties and joint contact with kin or friends.

Further analyses compared the participants in relation to transitioning into an empty nest or retirement. Husbands who transitioned into an empty nest reported significantly ( $p < 0.05$ ) lower levels of joint contact with friends at baseline compared to husbands whose children were living in the household. Otherwise, participants who had children continuously living in the household did not differ in terms of education, marital quality, number of kin ties, number of friends, or joint contact with kin or friends or overlap of friends compared to those who transitioned into an empty nest. Participants who retired between

measurements did not differ at baseline in terms of education, marital quality, number of kin ties, number of friends, or joint contact with kin or friends or overlap of friends compared to those who continued to work.

### 3.2. Measures

#### 3.2.1. Dependent variables—personal network overlap and joint contact

During both waves, respondents were asked to provide their perceptions of the degree of overlap and joint contact between their personal networks and their partner's personal networks. Each indicator was asked independently of the two partners as not to bias their responses. Joint contact with kinship networks was measured using the following question: "When you visit the members of your kinship, how often are you and your partner together?" ([1] "Always together" [2] "Together in most of the cases" [3] "Together half of the time" [4] "Rarely together" [5] "Never together"). Joint contact with friends was measured by asking the following question: "When you visit your friends, how often are you and your partner together?" ([1] "Always together" [2] "Together in most of the cases" [3] "Together half of the time" [4] "Rarely together" [5] "Never together"). Perceived overlap of friendship ties was measured by asking "Among the following sentences, which best describes the relationships between your friends and your partner?" ([1] "All the same good friends" [2] "Quite the same good friends" [3] "Quite different good friends" [4] "All good friends are different"). Responses to the three dependent variables were reverse coded so that higher values indicate greater network overlap and greater joint contact. We collapsed the lower categories of these variables to ensure all categories have sufficient numbers of cases. Thus, the study categories for joint contact were: [1] "Together up to half of the time" [2] "Together in most of the cases" [3] "Always together". The study categories for overlap of friendship ties were: [1] "All friends differ \ Quite different friends" [2] "Quite the same good friends" [3] "All the same good friends". Although the latter question taps into multiple dimensions of spouses' social lives, it does not permit direct assessment of network overlap by comparing the personal networks of each spouse as measured in previous network overlap studies (e.g., Kalmijn, 2003; Stein et al., 1992). Instead the above measures were selected as a parsimonious way to assess perceived overlap between spouses, following a similar approach as used by Fiori et al. (2017).

### 3.3. Independent variables

#### 3.3.1. Retirement

The work status of both partners was coded into five categories: "both partners working during both waves," "husband retiring between the waves," "wife retiring between the waves," "both partners retiring between the waves," and "both partners continuously retired." Ninety-five cases that did not fit these categories were excluded from the analyses (e.g., returned to work).

**Empty nest.** The transition to an empty nest (i.e., adult children exiting the familial household) was coded into three categories: "children living in the household during both waves," "children exiting the household between waves," and "children continuously not living in the household." Fifty-eight cases in which children returned to the home between waves were omitted.

#### 3.3.2. Covariates

We control for respondent education, language, network size, and quality of marriage at baseline (wave 3). Education was divided into those without high school education and those with a high school diploma or higher education. Languages were French, German and Italian. Quality of marriage was assessed by asking "All considered, how do you evaluate your conjugal life?" Response options ranged from 1 ("Really good") to 5 ("Really bad") and were reverse coded so that higher scores indicated better relationship quality. We also controlled

for network size as it may be related with network overlap as well as ability to jointly interact with friends and family. Network size was measured as the number of friends and number of kinship members living in close proximity. First, respondents were asked "How many good friends do you have—that is persons to whom you feel very close?" Respondents could state a number between 0–7 friends. Reporting more than 7 close friends was coded as "more than 7". Next, they were asked "How many kinship members (including your children not living with you) live within 20–30 minutes' drive?" The response options were "none"; "1–3"; "4–6"; "7–10"; "11–15"; "more than 15." These categories were coded as 0–5. We also used the discrepancy scores between husband and wife number of kin members and friends.

### 3.4. Analytic strategy

We begin by presenting the descriptive statistics for our sample and comparing the differences across gender. Next, we proceed using ordinal logistic regression models to estimate the associations between the household transitions, network overlap, and joint contact. Each outcome (i.e., network overlap, joint contact) is predicted separately for husbands and wives. All models control for respondents' baseline network structures, education, interview language, marital quality, number of close kinship members and friends, and discrepancy scores between husband and wife number of kin members and friends. Age is not used as a control variable because of the high dependence of the transitions on age given the statutory retirement age in Switzerland (65 for men, 64 for women). Ordinal logistic regressions produce odds ratios that indicate the odds of being assigned one category of the dependent variable compared to the next lowest category (e.g., odds of reporting "Always together" vs. "Together in most cases"). Because odds ratios are an unintuitive metric, we calculate and plot the predicted probabilities of each outcome to assess the differences across categories of household transitions. We use the delta method to calculate the confidence intervals for the differences in predicted probabilities (Xu & Long, 2005). We used Pseudo R-squared to indicate the explained variance of the outcome variables.

To ensure the robustness of the results presented in the next section, a series of empirical checks were performed. We examined whether all models met the proportional odds assumption which states that the odds ratio estimates of the independent variable are the same across each level of the outcome variable. Nine of the twelve models met the assumptions. We ran the models that did not meet the assumptions as generalized ordered logit models, which allow inconsistent estimates to vary across levels (Williams, 2006). These models showed a similar outcome as the ordinal regressions (available upon request). We also conducted a robustness check regarding the collinearity of age with retirement and empty nest by estimating additional models which incorporated age but not the empty nest or retirement transitions (available upon request). Model fit deteriorated for most of these models—eight of the twelve explained less variance when using age as a predictor compared to the models examining transitions without age. When age explained more variance, it was the models in which the transition was found to have a non-significant association with perceived joint contact or overlap.

## 4. Results

**Table 1** shows the descriptive statistics for husbands and wives separately. Husbands and wives each reported having more joint contact with relatives than with friends. A majority rated the relationship between their friends and their partner as "quite the same good friends." Husbands and wives reported having less than five close friends and about "4–6" relatives living nearby (category 2). They rated the quality of their personal relationship as relatively high (4.47 for husbands and 4.38 for wives; range 1–5). Joint contact with friends and overlap of friends between partners are strongly associated ( $\chi^2 (4) = 52.91, p < .001$  for men;  $\chi^2 (4) = 55.26, p < .001$  for women). In other words, the

**Table 1**

Descriptive statistics and bivariate analyses for husbands and wives.

	Husbands			Wives			<i>T-test / χ<sup>2</sup></i>
	Mean / %	SD	N	Mean / %	SD	N	
Baseline perceived kin joint contact			388			392	$\chi^2 = 18.96^{**}$
Together up to half of the times	21 %			32 %			
Together in most of the cases	53 %			48 %			
Always together	26 %			20 %			
Follow-up perceived kin joint contact			389			389	$\chi^2 = 23.29^{***}$
Together up to half of the times	18 %			29 %			
Together in most of the cases	51 %			49 %			
Always together	31 %			22 %			
Baseline perceived friends joint contact			387			393	$\chi^2 = 50.49^{***}$
Together up to half of the times	29 %			40 %			
Together in most of the cases	53 %			49 %			
Always together	18 %			10 %			
Follow-up perceived friends joint contact			394			391	$\chi^2 = 26.74^{***}$
Together up to half of the times	37 %			43 %			
Together in most of the cases	45 %			46 %			
Always together	18 %			11 %			
Baseline perceived friends overlap			384			385	$\chi^2 = 54.43^{***}$
All friends differ \ Quite different friends	21 %			23 %			
Quite the same good friends	65 %			63 %			
All the same good friends	14 %			14 %			
Follow-up perceived friends overlap			383			381	$\chi^2 = 28.24^{**}$
All friends differ \ Quite different friends	28 %			24 %			
Quite the same good friends	59 %			62 %			
All the same good friends	12 %			14 %			
Education high school or above	57 %		389	34 %		394	$\chi^2 = 35.98^{***}$
Number of friends	4.88	1.98	389	4.91	1.90	394	$t = -0.25$
Number of kin	1.89	1.62	389	1.90	1.60	394	$t = -0.02$
Quality of spousal relationship	4.47	0.61	388	4.38	0.69	394	$t = 2.64^{**}$

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

more partners develop joint contact, the more they perceive their networks to overlap. Similarly, having perceived joint contact with friends is significantly associated with having perceived joint contact with kinship members ( $\chi^2 (4) = 37.65, p < .001$  for men;  $\chi^2 (4) = 53.93, p < .001$  for women).

Table 1 also compares the characteristics of husbands and wives. On average, husbands reported joint contact with kinship members and friends significantly more often than the wives at both time points. They reported higher overlap of friendship ties at baseline, while wives reported more overlap at follow-up. Husbands did not differ in the number of kinship members living nearby nor in the number of close friends. Overall, husbands reported higher marital satisfaction. To further understand the level of agreement between husbands and wives, we examined the associations between the reports of joint contact and overlap of husbands and wives. Reports on all three measures were significantly associated, albeit these were weak correlations in contact with kin ( $r = 0.22, p < 0.001$ ) and moderate correlations in relation to friends (joint contact  $r = 0.32, p < 0.001$ ; overlap  $r = 0.34, p < 0.001$ ).

As for the household transitions, slightly more than a third of the households had children living in them in both waves (36.6 %), whereas 17.6 % reported the children leaving the household and 45.8 % had children continuously living elsewhere. About half of the households reported that both partners were working during both waves (49.5 %), 15.4 % of the households saw only the husband retire between waves, 6.5 % saw only the wife retire, 5.5 % saw both partners retire and 23.2 % had both partners continuously retired.

Table 2 shows the associations between children's living status and reports of network overlap and joint contact for husbands and wives. Husbands whose children either left the household between waves or were continuously living elsewhere had higher odds of reporting joint social contact with their wives at T2 compared to husbands whose children were continuously living at home (i.e., "full nesters"). Predicted probabilities derived from Model 1 indicate that husbands whose children were continuously living elsewhere were 16 % more likely than full nesters to report that they were "always together" with their wives when

they visited kin. Meanwhile, husbands whose children left the household between waves were 9 % more likely to report that they were "always together" with their wives when they visited friends compared to full nesters. A similar trend (in terms of joint friend contact) was found for husbands whose children were continuously living elsewhere. Fig. 2 plots the differences in predicted probabilities derived from models in Table 2 to help visualize these findings.

The changes in household composition had fewer associations with wives' reports of network overlap than husbands. The continuous absence of children from the household was significantly related to perceived overlap with friendship networks (Model 6), but not to perceived joint contact with kinship nor friend networks (Models 4–5). Wives whose children were continuously living outside the household were 7 % more likely than full nesters to report higher levels of friendship overlap at T2 (see Fig. 3 for a visual representation).

Table 3 presents changes in occupational status. Interestingly, the joint contact reported by men were mostly significantly associated with the retirement of their wives. Husbands whose wives retired between waves were 24 % more likely to report that they were "always together" with their wives when they visited kin compared to continuously working households. Furthermore, husbands who were continuously retired alongside their wives between waves were 16 % more likely than men in continuously working households to report that they were "always together" when they visited kin. These relationships are visualized in Fig. 4. Additionally, husbands whose wives retired were 6 % and 11 % less likely than continuously working households to report that they were "rarely together" or "together half the time" with their wife when they visited friends, respectively.

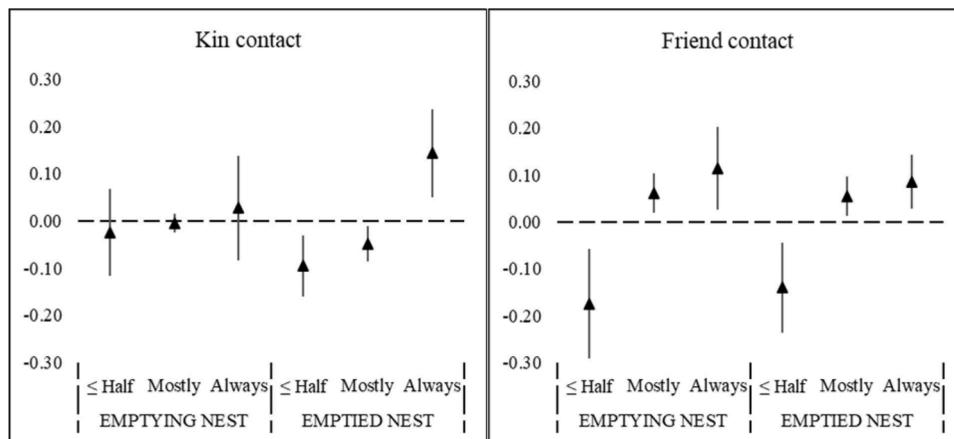
Table 3 also shows the associations between retirement and wives' reports of joint contact and overlap. Wives whose husbands retired between measurements were more likely to report joint contact with kin and more overlap of friendship ties. Wives in households in which both partners were continuously retired were 16 % more likely than wives in continuously working households to report that they were "always together" with their husbands when they visited kin. The continuous

**Table 2**

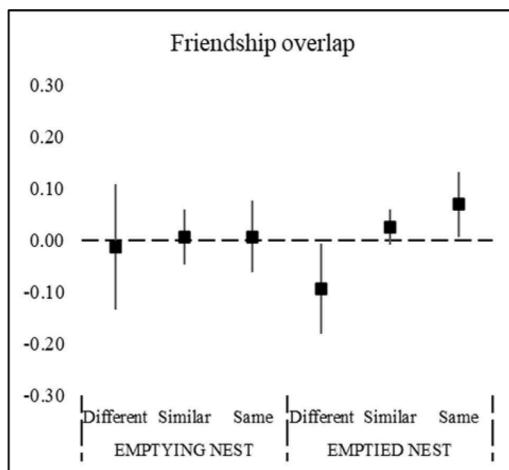
Ordinal logistic regressions predicting personal network overlap and joint contact by transition to empty nest (Odds ratio (SE)).

	Husband's perception			Wife's perception		
	Model 1 Joint contact with kinship members (T2)	Model 2 Joint contact with friends (T2)	Model 3 Friendship overlap (T2)	Model 4 Joint contact with kinship members (T2)	Model 5 Joint contact with friends (T2)	Model 6 Friendship overlap (T2)
<i>Children continuously living in household (ref)</i>						
Children leaving	1.18 (0.38)	2.45** (0.79)	0.89 (0.31)	0.99 (0.32)	1.87 (0.62)	1.07 (0.36)
Children continuously living elsewhere	2.13** (0.54)	2.03** (0.50)	1.70* (0.45)	1.31 (0.33)	1.54 (0.39)	1.76* (0.47)
N	331	334	323	332	333	318
Pseudo R <sup>2</sup>	0.101	0.118	0.126	0.137	0.103	0.060

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . All models control for the respondent's baseline level of the outcome variable, education, language, number of kin, number of friends, quality of the spousal relationship, discrepancy scores between number of kin members and friends as reported by husbands and wives.

**Fig. 2.** Differences in predicted probabilities of friend and kin contact (Husbands).

Note. Differences are not significant if the 95 % confidence interval overlaps the dashed reference line. Differences are in comparison to the probability of husbands whose children remained at home across waves experiencing each of the specified outcomes. Probabilities are derived from Models 1 and 2 in Table 2.

**Fig. 3.** Differences in predicted probabilities of friendship overlap (Wives).

Note. Differences are not significant if the 95 % confidence interval overlaps the dashed reference line. Differences are in comparison to the probability of wives whose children remained at home across waves experiencing each of the specified outcomes. Probabilities are derived from Model 6 in Table 2.

retirement of both spouses was also associated with greater odds of women reporting friendship overlap. Wives in these households were 9 % more likely than continuously working households to report that their close friends were "all the same" as their husbands' close friends (see Fig. 5).

A series of additional empirical checks were performed. We first performed a chi-square test for the different coefficients of husbands and wives when the associations of transitions differed between them. The differences between the coefficients did not emerge as significant. This lack of significance is likely to be due to the relatively small sample size. Thus, this should be examined in more detail in future studies using larger samples. In addition, given that larger personal networks decrease the likelihood of overlap, the hypothesized levels of overlap following transitions might be related to changes in network size (Antonucci et al., 2013; Waldron, Gitelson, Kelley, & Regaldo, 2005). Supplementary analyses (available upon request) were also conducted to examine the effects of the transitions on the size of the kinship networks and the friendship networks. The analyses showed that neither type of transition was associated with change in the size of the kinship networks nor the friendship networks. This indicates that the effects of household transitions on the overlap of personal networks of partners differ from their effects on network size.

## 5. Discussion

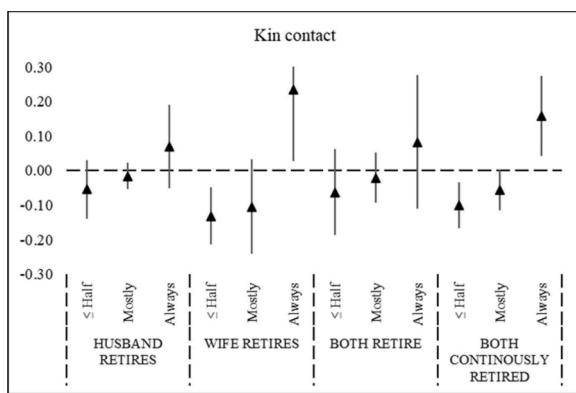
Based on continuity theory (Atchley, 1989), this study hypothesized that key transitions of older adulthood trigger a higher share of joint sociability between partners given that marriage in later life may compensate the role losses associated with such transitions and thus enable a continuity of self-identity and well-being. Therefore, we hypothesized that husbands and wives whose households experience emptying nest and retirement were more likely to report higher levels of shared social activities with their partner. Overall, the results provided support to these hypotheses. Both transitions were associated with

**Table 3**

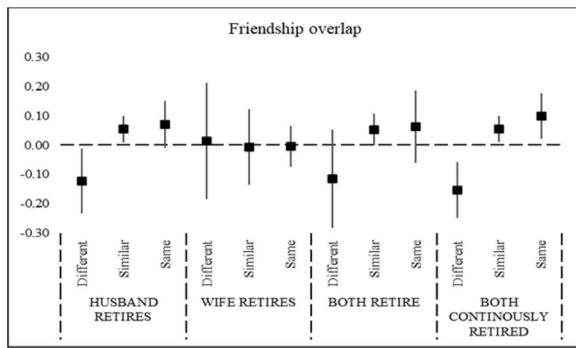
Ordinal logistic regressions predicting personal network overlap and joint contact by transition to retirement (Odds ratio (SE)).

	Husband's perception			Wife's perception		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Joint contact with kinship members (T2)	Joint contact with friends (T2)	Friendship overlap (T2)	Joint contact with kinship members (T2)	Joint contact with friends (T2)	Friendship overlap (T2)
<i>Continuously working (ref)</i>						
Husband became retired	1.50 (0.51)	1.16 (0.40)	1.07 (0.39)	1.97* (0.68)	1.52 (0.54)	2.13* (0.80)
Wife became retired	3.38* (1.73)	3.26* (1.76)	0.71 (0.37)	1.30 (0.67)	1.63 (0.80)	0.94 (0.50)
Both became retired	1.60 (0.85)	0.43 (0.23)	0.59 (0.33)	3.03 (1.73)	1.07 (0.57)	2.00 (1.15)
Both continuously retired	2.33** (0.71)	1.70 (0.51)	1.34 (0.44)	3.10*** (0.98)	1.89* (0.58)	2.67** (0.91)
N	289	290	282	288	291	281
Pseudo R <sup>2</sup>	0.112	0.103	0.132	0.155	0.113	0.111

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . All models control for the respondent's baseline level of the outcome variable, education, language, number of kin, number of friends, quality of the spousal relationship, discrepancy scores between number of kin members and friends as reported by husbands and wives.

**Fig. 4.** Differences in predicted probabilities of kin contact (Husbands).

Note: Differences are not significant if the 95 % confidence interval overlaps the dashed reference line. Differences are in comparison to the probability of households in which both spouses were worked across waves. Probabilities are derived from Model 1 in Table 3.

**Fig. 5.** Differences in predicted probabilities of friendship overlap (Wives).

Note: Differences are not significant if the 95 % confidence interval overlaps the dashed reference line. Differences are in comparison to the probability of households in which both spouses were worked across waves. Probabilities are derived from Model 6 in Table 3.

increasingly shared social interactions and friendship networks between husbands and wives. The results are congruent with a series of mechanisms accounting for the continuity of self-identity and well-being in later adulthood across life transitions and role losses.

The convoy model and the proximity principle stress the discontinuity of peripheral ties that were associated with having a child at home or with working while granting continuity to central ties such as partnerships. Because partners belong to each other's convoy, their network members tend to become closer as they separate from peripheral ties when constraints associated with work and children dissipate. Because the transition to an empty nest as well as retirement entails disconnections from central face-to-face activities (raising kids, paid work), more importance will be given to the partnership as a dimension of life continuity. Consequently, the time freed by role losses appears to be spent socializing with the partner and the couple's associates. Such changes in shared personal networks can have beneficial effects for both dyad members and can lead to improvements in the spousal relationship. For example, couples who have greater network overlap report higher marital quality (Kearns & Leonard, 2004) and are more likely to view each other as reliable sources of support, open up to each other, and discuss health issues with one another (Cornwell, 2012). This is likely because people who have frequent interaction with their spouses' confidants are better able to recruit external support resources on their spouses' behalf and have a better understanding of their spouses' support needs. A general explanation, which is in line with the convoy model and the proximity principle, lies in the critical function of partnership as a central provider of meaning and self-concept (Berger & Kellner, 1964). When faced with role losses in later life (Atchley, 1989), a compensatory mechanism for older adults in order to achieve internal continuity is to roll back on their marriage as a long lasting familiar relationship which can more easily be given a larger prominence than other relationships such as those with siblings or friends (Widmer, 2016). Obviously, such greater prominence given to marriage has implications for sociability and personal relationships, leading to greater overlap in conjugal networks.

Our study revealed that the departure of adult children from the familial home corresponds to increased overlap in certain realms of the husband and wife's social lives. Not only do the adult children undergo a significant life transition that will inevitably lead to changes in their social interactions (Roberts & Dunbar, 2011), but this change produces a rippling effect that reaches to other kinship members (Hagestad et al., 1981). The interdependent nature of familial relationships is reflected in changes to the personal networks of their parents. Because women play a central role in childcare, we hypothesized that the departure of children would be more strongly associated with wives' reports of network overlap and joint contact than husbands' reports. Contrary to our expectations, husbands, not wives, reported significant increases in joint contact when their children left the household. One potential explanation is that women—who tend to be better at maintaining and expanding

social networks throughout the life course (Fischer & Beresford, 2015; Schwartz & Litwin, 2018)—may actively seek time spent with family and friends both in the presence and absence of their husbands. For example, following a child's departure, a wife might manage to see her friends six times in one week. During three occasions she visits her friends alone whereas the remaining three occasions her husband is present. Given that men spend less time socializing with friends in later life (Cornwell et al., 2008), her husband may have only seen his friends three times that same week, during all of which his wife was present. When asked how frequently each spouse jointly visits with friends, the wife would report "half of the time" whereas the husband would report "always." Both provide valid answers, yet the wife reports a low frequency of joint visits because she is more socially active than her husband in the wake of the newly allotted non-children time. This greater overlap of shared network members and joint contact might help explain the increased marital satisfaction following an empty nest. Specifically, it is mostly husbands who perceive their marriage quality as greater after the exit of children from the household (Faulkner, Davey, & Davey, 2005). The increased social contact they share with their wives, and the two of them having time to accompany each other more often to social events, can improve the conjugal bond and support.

Further support for the interpersonal impact of life transitions is found for retirement. Although we did not find support for the husbands' reports of network overlap compared to wives' reports, it appears that both husbands and wives exhibit increase in network overlap and joint contact when the opposite spouse retires. This illustrates how a shift in one spouse's daily routine is inextricably linked with that of the partner. To explain these findings, we posit that retiring spouses now have more leisure time (due to the absence from work) and will be more likely to join their partner for social visits to family and friends. Rather than both spouses altering their respective personal networks, it is possible that retiring spouses, who have more leisure time for social visits, increase the frequency of co-visits with shared network members as well as with non-shared network members. The non-retiring spouse, whose free time has not increased, is now accompanied by the spouse more often when visiting kin and friends. Such a convergence between the partners might extend beyond the realm of social contact and lead to a convergence of behaviors and perceptions in other life domains. For example, partners tend to become more similar in their views on marital solidarity following the husband's withdrawal from the labor force (Davey & Szinovacz, 2004). Further research is needed to replicate and better understand these findings.

Overall, the effects of transition to retirement were more consistent relative to the effects of the empty nest transition. In Switzerland retirement has been so far an irreversible transition for a large majority of the population. State regulation prohibits re-entry into the labor force. Furthermore, many members of the current older generation have accumulated enough wealth to make going back to work unnecessary. Therefore, these results might differ in other national contexts in which retirement is a more reversible process. By contrast, the departure of children from the household is a gradual process in which their level of independence increases as they grow older. In the years prior to leaving the household, children have less of an impact on their parents' social lives, therefore making the departure less pronounced. Furthermore, there are many different arrangements of young adults when they leave the house (e.g., local residence with frequent family interactions, living abroad with minimal family interaction). Some children might maintain frequent contact with their parents even after leaving the nest and the impact of their departure can be felt only after years. This might be reflected in the larger number of shared ties when children were continuously not living in the household.

### 5.1. Study limitations and contributions

Our study is not without limitations. First, we use aggregate variables to measure shared contact with kinship and friendship ties rather than

comparing results from name generators asked to husbands and wives (Campbell & Lee, 1991). Using such aggregate measures, which made it possible to include a network dimension in the questionnaire without jeopardizing other parts of the questionnaire due to time constraints, may blur the nuances of the network dynamics. Second, we do not know the exact number of times each respondent interacts with their friends and kinship members. This makes it difficult to know whether the observed findings related to overlap in joint contact are a function of one spouse being more social than the other or whether the two spouses simply maintain ties to more joint friends and kinship members. An additional limitation is the lack of data regarding the identity of specific network members. The fact that overlap was assessed by asking about the degree of overlapping friendship ties, rather than names of friends, precluded us from being able to generate the detailed assessments of friendship overlap available in some previous studies (e.g., Kalmijn, 2003; Milardo, 1982; Stein et al., 1992). It also precludes us from knowing the directionality of network changes from each partner. That is, we cannot determine whether the wife absorbs the husband's network or whether her network is absorbed by the husband's network. Notwithstanding, this study features the unique advantage of being longitudinal and having two independent interviews for each couple. Future research can delve deeper into these trends by better identifying the network members who are increasingly shared by couples while keeping the advantages of our study design.

Despite these shortcomings, our study provides insights into shared social lives of married couples during the later stages of family development. Drawing on the life course perspective, we demonstrated how family members' lives are inextricably interwoven. The two household transitions we studied—both of which were initiated by a single family member—corresponded to increased overlapping of spouses' personal networks. Given the beneficial nature of overlap of personal networks between partners and the increased reliance on social networks during the later stages of life, future research should continue to empirically address similar issues in a variety of national contexts featuring potentially different personal networks (Gelissen et al., 2012; Joye et al., 2019; Scheepers et al., 2002; Wall et al., 2018).

### Declaration of Competing Interest

None.

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### Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.alcr.2020.100395>.

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