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ORIGINAL RESEARCH

(Un)happy Together—The Interrelated Life Satisfaction of Older Couples

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Abstract
In this article, we explore a largely uncharted field of research—how a partner's life satisfaction is associated with one's own life satisfaction among older (50+) couples in Europe. We also study the moderating role of caregiving, health difference, social relations, and country of residence. We analyse longitudinal data from seven waves of the Survey of Health, Ageing and Retirement in Europe using fixed effects regression techniques. Our analysis sample includes 155,494 observations (49,520 individuals in 24,760 couples). Our results show that the association between the life satisfaction of each partner was relatively strong, even after controlling for both partners' health, demographic, and socioeconomic factors. This association was further moderated by caregiving roles, health disparities, social networks, and the broader national context. For example, the association was weaker when only one partner provides care or when only one faces health issues. Among women, the association between their life satisfaction and their partner's was pronounced when the social network was limited. Furthermore, while most couples report similar levels of life satisfaction, more than a third of individuals differ from their partner. These findings highlight the interconnected nature of well-being in later life and suggest that policies aimed at improving individual life satisfaction may have broader benefits when they take the dyadic context into account. Our study contributes to a growing body of evidence on within-family well-being spillovers and emphasize that the strong association between partners' life satisfaction could be better taken into account in social and health policies as well as research on well-being.

Keywords Subjective well-being · Ageing · Couples · SHARE · Interdependency · Life satisfaction

Introduction.

A growing body of literature across various academic disciplines seeks to understand the factors associated with subjective well-being in later life. Subjective well-being (SWB) usually refers to satisfaction with life and the frequency of pleasant and unpleasant feelings (Diener et al., 2018). In a comprehensive review, socioeconomic status, health, social

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integration, social relationships and support, and psychosocial resources were identified as the most frequently studied determinants of subjective well-being (George, 2010; see also Dolan et al., 2008). Among older adults, health has been recognized as the strongest determinant of SWB, while the roles of education and income in late life remain unclear.

However, the existing research has largely neglected how other people around us affect our subjective well-being. While previous research has shown that good social relations are part of our subjective well-being and that being in a partnership improves life satisfaction (e.g., George, 2010; Gable & Bromberg, 2018), less is known about the couple or partner characteristics and one partner's well-being affecting the other's well-being. At the same time, the literature on linked lives emphasizes our shared existence and the interdependence of well-being between family members across the life course (Elder, 1987; Settersten, 2015). Furthermore, family systems theory predicts that the SWB of all members of a system (e.g. romantic partners) are affected by an event or a change (e.g. an illness) experienced by any member of that system. A system of any nature consists of interdependent parts that influence one another, and individual components cannot be fully understood without considering their connections (Broderick, 1993; Whitchurch & Constantine, 1993).

We contribute to the research on ageing and subjective well-being by focusing on the hypothesis of dyadic interdependence, as suggested by the theories of linked lives and family systems. This article examines how one partner's subjective well-being is related to the other partner's well-being among older opposite-sex couples in Europe. Using the longitudinal *Survey of Health, Ageing and Retirement in Europe* (SHARE) data, we answer to the following questions: (1) how is the respondent's life satisfaction related to their partner's life satisfaction among older couples (aged 50+) in Europe, and (2) does receiving or giving care, health difference, social network size, or country of residence moderate the association between partners' life satisfaction? The examination of these moderators, however, is more explorative due to the shortage of solid empirical evidence.

We focus especially on health-related moderators, because older couples tend to face a decline in health and impaired cognition of one or both partners, associated with natural ageing processes (Hoppmann & Gerstorf, 2009). This can eventually result in spousal caregiving and these caregiving dyads form a system with evident interdependence (Ferraris et al., 2022). Furthermore, guided by the family systems theory, we analyse whether the size of the social network of the partner moderates the association between the partners' SWB. Older couples may become more interdependent when their social network gets smaller, relying more on each other for emotional support, companionship, and practical needs (Broderick, 1993). In addition, we explore the role of the country of residence, as national welfare policies and cultural norms are likely to affect the interdependence between partners (Pestieau & Lefebvre, 2018). For example, sufficient formal care services alleviate the care burden and compulsory dependence, while a "male breadwinner" culture can create financial dependence and inequalities. A more detailed analysis of country level factors as moderators of the interrelatedness of couples' well-being is beyond the scope of the current article, however. Our aim is merely to explore differences in the association across countries.

There are several reasons why focusing on the well-being of older couples is interesting. First, some evidence purports that well-being increases with age (e.g. López Ulloa et al., 2013). We also know that married people are more likely to be healthier and live longer (Lawrence et al., 2019), and, on the other hand, healthier and happier people are more likely

to get and stay married (e.g. Lyubomirsky et al., 2005; Grover & Helliwell, 2019). Furthermore, recent evidence shows that the positive effect of marriage is long-lasting—happiness does not fade away over time (Grover & Helliwell, 2019). In addition, as people retire, their social relations become more focused on family as weaker relationships with friends and colleagues are reduced (Comi et al., 2022). It appears that the quality of social relations instead of their extent becomes more valued in older age (Litwin & Stoeckel, 2013). At the same time, individuals depend more on their partners for both company and care. Therefore, it is likely that partner and couple characteristics and the partner's well-being will have a strong impact on an individual's well-being, especially as we grow older.

Second, the factors affecting subjective well-being change during the life course. For example, it has been shown that health becomes a more important determinant of subjective well-being in old age (Margolis & Myrskylä, 2013), while there is limited evidence to support the hypothesis on *hedonic adaptation* to health decline with age (Bussière et al., 2021). As informal caregiving is typical between older spouses, it is likely that it is not only one's own health but also spouse's health and care needs that affect one's well-being (Hoppmann & Gerstorf, 2009). A vast body of literature already shows that informal care provision is associated with negative well-being outcomes among the spousal carers (Pinquart & Sörensen, 2011; Bauer & Sousa-Poza, 2015; Gerlich & Wolbring, 2021). Taking into account these aspects, the current study is a solid contribution to understanding well-being in older couples.

People are often treated as single units in various policies targeted towards individuals, and when cost-benefit analyses are conducted with respect to these policies. However, in the case that our well-being is linked to the well-being of our family members or other close ones, these interventions could have wider effects than usually assumed. Research on the so-called health spillovers between family members has already demonstrated that a health shock of a child or a spouse has wider negative economic and mental health impacts on the family (e.g. Vaalavuo et al., 2022; Böckerman et al., 2025). Focusing on subjective well-being—specifically life satisfaction—in our empirical analyses is policy relevant, as it has been recommended as a key indicator of national well-being (e.g. Vanderweele et al., 2020; Uotinen et al., 2025). Studying the interrelation of life satisfactions between family members may provide an avenue to designing effective policies which promote well-being in ageing societies.

1 Theoretical Background, Literature Review, and Hypotheses

1.1 The Interrelatedness of Partners' Subjective Well-Being

The idea of linked lives, coined by Elder (1987), highlights our dependence on those around us. Our life course is not only affected by events that happen to us, but also by events influencing the close relatives and friends. Life events affecting the subjective well-being (SWB) of one partner, such as retirement, unemployment, or health shocks, might therefore also affect the well-being of the other partner. The SWB of the people who surround us, especially of those with whom we share our everyday lives, may similarly be reflected onto us (Elder, 1987; Settersten, 2015).

Relatedly, systems theory aims to explain the behaviour of complex, organized systems of various natures. Systems thinking involves viewing the world as a network of interconnected objects. A central tenet of systems theory is that a system must be understood as a complete entity—individual components cannot be fully understood in isolation. Consequently, a system is defined by its interrelationships, with components being interdependent. The behaviour of each component influences and is influenced by the others, meaning that changes in one part typically impact the entire system (Whitchurch & Constantine, 1993). In a family context, this means that each member's behaviour impacts everyone else. Building on general systems theory, family systems theory posits that the SWB of all family members is influenced by life events or changes (e.g. in health) affecting any individual in the system (Broderick, 1993).

When a family relationship forms through marriage or cohabitation, partners strive to create a unified identity from their original distinctiveness, ultimately sharing a common reality while redefining themselves. Living together and sharing finances naturally bind couples through various pragmatic interdependencies, which are often shaped by gender-specific roles and activities (Bengtson & Allen, 1993). Women often play a more active role in their social relationships and tend to be more emotionally invested than men. As a result, wives may be more susceptible to dyadic interdependence in old age compared to husbands (Hoppmann & Gerstorf, 2009).

Older couples share a long history of joint experiences and many factors that affect their well-being, such as living conditions, family situation, and material resources (Hoppmann & Gerstorf, 2009). Several studies have found spousal similarities in well-being, cognitive functioning, chronic conditions, blood pressure, and health behaviours (Hammond & Sibley, 2022; Hoppmann & Gerstorf, 2009; Meyler et al., 2007). These similarities reflect selection, shared exposures and mutual influence, reinforcing the interdependent nature of a family system.

These interdependencies evolve over the life course, reflecting the cultural values of their time. The family, as a microsocial group within a broader social context, consists of individuals with a shared history who interact within dynamic social environments over time. The life course perspective highlights the significance of time, context, process, and meaning in human development and life (Bengtson & Allen, 1993). Individual development both shapes and is shaped by the development of those with whom we co-evolve throughout life and into old age (Hoppmann & Gerstorf, 2009).This dynamic warrants an investigation of the interrelationship between partners' well-being.

Empirical findings support this perspective. In one early study, Bookwala and Schulz (1996) analysed spousal similarity in SWB in older couples and demonstrated that a partner's SWB predicts the respondent's SWB even when controlling for sociodemographic variables and health. The authors suggested that partner selection, "affective contagion" (i.e. emotions transmitted from one family member to another), and the shared living environment are likely to play a role. A decade later, in a review Hoppmann and Gerstorf (2009) concluded that the well-being (including life satisfaction) of older partners is interrelated and that negative emotions appear to be more contagious than positive ones. Older age may relate to both greater and attenuated interrelatedness between the life satisfaction of spouses. On one hand, ageing is associated with an increased prioritisation of emotional positivity and improved emotional regulation, both individually and within the couple. Over time, older couples tend to become more adept at managing their own emotions as well as those

of their partner, which can enhance conflict management, emotional climate regulation, and cooperative goal coordination (Carstensen et al., 1996). These developments can reduce short-term emotional contagion between spouses, potentially attenuating interrelatedness in their life satisfaction (Larson & Almeida, 1999). On the other hand, older couples may also increasingly engage in shared goals and coordinated daily activities, leading to greater alignment in their actions and experiences (Carstensen et al., 1995, as cited in Hoppmann & Gerstorf, 2009). This greater mutual involvement can foster stronger synchrony in their evaluations of life, thus enhancing interrelatedness. In sum, age-related changes may involve two opposing mechanisms: improved emotional and conflict regulation may reduce short-term interrelatedness, while increased goal coordination and mutual engagement may strengthen longer-term interdependence in life satisfaction.

However, affective contagion appears not to equally impact all family members. A consistent finding in the literature is that men's negative emotions tend to predict women's negative emotions more than the reverse. This may reflect power dynamics in the family roles where the transmission of emotions tends to be directed from the more powerful, men, to the less powerful, women (Larson & Almeida, 1999). To reflect potential gender differences in how well-being is shaped within couples, and to obtain gender-specific estimates for all predictors, we estimated separate models for women and men.

Negative and positive emotions may have different mechanisms in a relationship. Drops in personal well-being may affect a spouse differently than increases in well-being. For example, positive affect during conflict in the early stages of marriage was the only predictor of marital happiness and divorce of stable couples (Gottman et al., 1998 as cited in Gottman & Notarius, 2000). As a first step in the analysis, we examine whether there is asymmetry in the relationship between the spouses' well-being in terms of drops or increases in the spouse's well-being.

Finally, assortative mating increases the likelihood that partners are similar with respect to well-being and health in the first place. Research on assortative mating has found that people are likely to form unions with people who resemble them in terms of education, ethnicity, and socioeconomic status, for example (Schwartz, 2013). Dammeyer et al. (2022) discovered that people with a disability were more likely to have a similarly disabled partner. This may be beneficial for well-being in itself as couple similarity is found to affect life satisfaction positively (Wu et al., 2020). We account for the couple similarity (i.e. assortative mating) in our analyses by using fixed effects regression models that are based on within-individual changes and controls for the baseline status.

Based on our theoretical framework and previous findings, we expect to find an association between partners' life satisfaction even when controlling for demographics and socioeconomic situation, health related factors, informal care and social relations (*Hypothesis 1*).

1.2 Factors Moderating the Interrelatedness of Partners' Subjective Well-Being

Several factors might affect the strength of the interrelationship between partners' life satisfaction. The literature theorizes that broadly understood individual psychological resources, such as personal time for renewal or energy, limit the transmission of negative emotions because they better enable emotional management (Larson & Almeida, 1999). However, couple-specific moderators appear to have been less examined. We examine the role of four potential moderators: health differences, caregiving, the social network, and the country of

residence. These chosen variables could serve as proxies for the interdependency between partners. The idea being that the more people depend on their partners socially, emotionally, or economically, the more the partners' life satisfaction is likely to determine theirs. However, our examination of these moderators is more explorative than based on a strong theory.

Health problems can affect partnership dynamics and the well-being of both partners. Yorgason et al. (2006) demonstrated that the health symptoms of a spouse were associated with negative moods among older people, and Freedman et al. (2012) found that health problems and disabilities of a spouse have a negative effect on the SWB of married older people, independent of spouse and couple characteristics. According to Yorgason et al. (2006), however, gender differences emerged suggesting that men were less affected by their partner's health. This is in line with what Hoppmann and Gerstorf (2009) noted: wives may be more susceptible to dyadic interdependence in old age, compared to husbands. Furthermore, the role of caregiver is more often adopted by women. Using SHARE data, Bourassa et al. (2015) studied the health, cognition, and quality of life (CASP-12) of older married couples. While the interrelationship between spouses' quality of life existed at the baseline as well as over time, the health and cognition of the spouse were associated with their partner's quality of life only at the baseline and this association faded away with time. Even without a need for informal care, differences in the partners' health status are likely to affect the degree to which partners depend on each other socially, in their daily lives, and economically. With one partner being healthy and the other one not, the latter is more likely to depend on the other for catering to their needs, which can increase pragmatic interdependence. In our empirical analysis, we test for the moderating effect of health differences between partners. We expect the correlation between partners' life satisfaction to be higher when there are differences in the partners' health status as there might be a stronger dependence between partners (*Hypothesis 2*).

Well-being and caregiving are found to be interconnected in many ways. Both the caregiver and the care recipient are affected by the emotional experiences and reactions of the other (Ferraris et al., 2022; Revenson et al., 2016). It is well documented that informal care provision is associated with negative well-being outcomes among the spousal carers (Pinquart & Sörensen, 2011; Bauer & Sousa-Poza, 2015; Gerlich & Wolbring, 2021). Caregiving has been found to be associated with lower well-being, including lower life satisfaction, higher stress, and more depression (van den Berg et al., 2014; Pinquart & Sörensen, 2003), while the adverse well-being effects of informal care vary between carer-subgroups (Bom et al., 2019). The negative association is stronger among those carers who live with the person they care for, spousal caregivers, and those with more intensive caring activities (Bauer & Sousa-Poza, 2015). For example, caring for a partner, compared to caring for a parent or parent-in-law, is associated with lower psychological well-being and a higher financial burden (Pinquart & Sörensen, 2011). Recent evidence emphasizes the long-term effect of the caregiver role on SWB among older people. According to Gerlich and Wolbring (2021) spousal carers are not likely to fully adapt to their role over time. For the majority of carers, the negative effect of the care burden persisted.

We examine the role of care in the interrelatedness of partners' well-being. The effect of receiving and giving care to one's partner on the correlation between the partners' life satisfaction is not well established, and no specific hypothesis can be formulated. Caregiving in itself has been found to have negative effects on well-being as discussed above, but both receiving and giving care could also increase the state of interdependency and thus

strengthen the interrelatedness of partners' life satisfaction. This may be because giving care reduces personal resources thus leading to worse emotional management, worse relationship, and greater contagion of negative affect (Larson & Almeida, 1999). So, if this mechanism prevails, the correlation between spouses' life satisfaction increases with giving and receiving care (*Hypothesis 3a*). However, it is also possible that carers may adopt a more professional role rather than an intimate one when marital relationship develops towards a caregiving relationship (Andréasson et al., 2023). This relational shift can affect how partners respond to each other emotionally and how well-being is shared within the couple. When caregiving roles become more akin to professional care than mutual support, emotional reciprocity may diminish, and the relationship may become more asymmetrical. Such a transformation can weaken the shared responsiveness and attunement that typically sustain emotional interdependence in intimate partnerships. If this mechanism prevails, giving and receiving care may lead to lower correlation between spouses' life satisfaction (*Hypothesis 3b*).

The linked lives perspective is not limited to spouses alone but entails an understanding of the important role of social relations in general. It should be noted that social relations throughout the life course can affect later health, while the socioeconomic position can affect social relations, rendering well-being, health and social relations in older age a complicated web (see e.g., Webster et al., 2022). Furthermore, social relations may become less extensive but more cherished with age (Charles & Carstensen, 2010; Lansford, 2018; Comi et al., 2022). A balanced social network helps individuals to manage their family roles; reduce strain and foster better adaptability, for example. A larger social network also offers valuable resources such as emotional support and practical help for coping with stress. However, if a family member prioritizes their social network over family interactions, it could lead to disengagement (Broderick, 1993). According to family systems theory, older couples may become more interdependent as their social network gets smaller, relying more on each other for emotional support, companionship, and practical needs. We test this hypothesis empirically. We expect that when an individual has a broader social network, their partner's life satisfaction is expected to have a weaker association with the individual's life satisfaction (*Hypothesis 4*).

Several country-level factors are likely to influence the interrelationship between the life satisfaction of partners, which varies significantly between European nations due to differences in environmental, social, and economic conditions, cultural norms, and health and welfare policies (see e.g. Pestieau & Lefebvre, 2018). For example, extensive care services in some countries can alleviate caregiving stress, enhancing both partners' life satisfaction, while limited services may place a greater burden on one partner, leading to dissatisfaction. Additionally, income disparities, particularly in "male breadwinner" countries, can create financial dependence, fostering inequality and tension. Cultural norms and traditional family values also shape relationship dynamics, potentially strengthening bonds or causing conflict depending on how rigidly these norms are enforced. In individualistic societies (Hofstede, 2011), for example, there may be lesser interdependence between partners. Overall, we expect to detect differences in the interrelationship by country of residence (*Hypothesis 5*), while a more detailed investigation into the mechanisms behind this would be beyond the scope of this study.

2 Data and Methods

2.1 Data and Analytical Sample

In this article we use SHARE, i.e. *the Survey of Health*, *Ageing and Retirement in Europe* (SHARE-ERIC, 2025) panel data from 7 survey waves: wave 2 (2006–2007), wave 4 (2010–2012), wave 5 (2013), wave 6 (2015), wave 7 (2017–2019), wave 8 (2019–2020) and wave 9 (2021–2022). We have excluded the first survey wave as life satisfaction data is available only from wave 2 onwards. Wave 3 is also excluded because we chose not to analyse retrospective data. The multidisciplinary SHARE data covers 28 countries, all of which are included in this study (see Supplementary Table S1 for country statistics). While some countries have participated in all seven waves of data collection, others have more limited representation in the data (min. 2 waves).

The analysis sample (49,520 respondents, 24,760 couples, and 155,494 observations) comprises men and women aged 50 or older who were living with an opposite-sex partner, had both participated in at least two survey interviews, and had not changed partners between interviews. Our focus is exclusively on opposite-sex couples, as the number of same-sex couples in the dataset is too small (0.2% of analysis sample) for a meaningful statistical analysis. The sample includes both married and cohabiting couples, without distinguishing between them, as 95 per cent of the couples were married. A listwise deletion of missing values across all variables used in the analysis was conducted, and all respondents with only one observation were excluded, as they could not be used to assess within-individual changes in SWB (see Table S2 in the Supplementary file). 29 per cent of the respondents participated in two survey waves, 22 per cent in three waves, 20 per cent in four waves, 15 per cent in five waves, 7 per cent in six waves, and 8 percent in seven waves, reflecting the distribution of panel participation rather than attrition.

2.1.1 Main Variables of Interest

Our dependent variable, and the selected measure for subjective well-being is *life satisfaction*, which is operationalized in SHARE with a single question of "on a scale from 0 to 10 where 0 means completely dissatisfied and 10 means completely satisfied, how satisfied are you with your life?". Our main independent variable is the *"life satisfaction of a partner,"* measured in the same wave and the same way as the respondent's life satisfaction.

2.1.2 Control Variables

To control for the health and functioning ability of partners, we included the following measures in the analysis: *the number of chronic conditions* that the respondent reported to have been diagnosed with (such as cardio-vascular, respiratory, or neurological diseases, diabetes, cancer, or hip fractures), and *the number of limitations to activities of daily living (ADL)* such as getting in or out of bed, getting dressed, using the toilet, eating, walking, and *the number of limitations in instrumental activities of daily living (IADL)* such as shopping for groceries, preparing a meal, managing money and phone calls, or taking medications. The number of chronic conditions was recoded into four categories: no chronic conditions, one chronic condition, two chronic conditions, and three or more chronic conditions. The

numbers of ADL and IADL limitations were first summed up and then recoded into three categories: no ADL or IADL limitations, one or two ADL or IADL limitations, and three or more ADL or IADL limitations. These indicators were measured separately for the individuals and their partners.

We also controlled for informal caregiving by including a categorical variable that indicates whether partners *give personal care to each other* (e.g. washing, getting out of bed, or dressing). The intensity of such caregiving was defined as "daily or almost daily, during at least three months, excluding help during short-term sickness of family members". This variable has four values: no care given or received between partners, the respondent has given care to their partner but not received care from the partner, the respondent has not given care to partner but has received care from their partner, and the partners give care to each other.

Finally, we controlled for demographic and socioeconomic factors. *The age of the respondent* is introduced into equations in four age groups for flexibility in relation to the correct functional form.

The dummy variables of the *household size* and *job situation* indicate whether there are other residents living with the couple, and whether the respondent or partner are employed versus not employed (indicating retirement and other non-working statuses). Although retirement and unemployment reflect distinct circumstances, further disaggregation was not feasible due to the uneven distribution of respondents across these categories. As the variable is used solely as a control, we adopted a broad working/non-working distinction, which is most relevant for capturing differences in time availability and daily routines. Household size is a household-level measure, whereas the job situation was measured separately for the respondent and the partner.

The households' financial situation was measured by their ability to make ends meet, by asking: "Thinking of your household's total monthly income, would you say that your household is able to make ends meet?" There were four response options: "with great difficulty, with some difficulty, fairly easily, easily". We believe this subjective measure is more appropriate than income for our purposes as it captures the impact of life-course assets and savings, homeownership, and needs (Ilmakunnas et al., 2024). Since our focus is on subjective well-being, we prioritized the perceived financial strain over absolute income. This measure is particularly useful for identifying economic stress among lower-income groups, though it is less sensitive to variation among high-income households. In addition, there were multiple non-random missing values for the household income, which would have affected the external validity of the results. Furthermore, even with purchasing power parity (PPP) adjustments, its meaning varies between countries.

In SHARE, the *social network size* is assessed by asking respondents to "mention up to seven names of persons you discuss important personal matters with". These network members can include children, other family members, friends and neighbours, or formal helpers. Because this question was only asked in waves 4, 6, 8, and 9, we imputed values for categorically missing waves using information from adjacent waves: wave 2 was assigned the value from wave 4, waves 5 and 7 were imputed the means of preceding and subsequent waves. Using this approach, we retained 155,494 observations in our main analysis sample, compared to 97,822 observations when limiting the data to only waves with an observed network size. Because this imputation approach can yield non-integer values (e.g. 0.5 or 2.5), we recoded the resulting variables into categories: "one close other" includes

values ≤ 1.5, "two or three close others" includes 2–3.5, "four or five close others" includes 4–5.5, and "six to seven close others" includes 6–7. Rather than assuming a strictly linear relationship, this categorisation provides a flexible modelling strategy that allows for the possibility of threshold effects or diminishing returns in the association between network size and subjective well-being.

2.1.3 Moderating Variables

For the first moderation model we coded a new variable *health difference*, which was comprised of four categories: both partners are well (i.e. neither have disabilities or chronic conditions), only the respondent's partner has disabilities or chronic conditions, only the respondent has disabilities or chronic conditions, both partners have disabilities or chronic conditions. A dichotomous indicator for having/not having disabilities or chronic conditions was determined by utilising our ADL/IADL and chronic conditions count measures. We followed the coding applied by SHARE in their generated variables module for health: respondents with no ADL or IADL limitations or chronic conditions were assigned as "not having disabilities or chronic conditions", and respondents with one or more ADL or IADL limitations or two or more chronic conditions were assigned as "has disabilities or chronic conditions". For the second moderation model, we utilised the *give personal care to each other* variable (see above). For the third moderation model, we used the variable *social network size* variable. The fourth moderation model with *country of residence* has 28 categories, in which "the happiest country in the world" Finland (Helliwell et al., 2024) was set as a reference.

The averages and the distribution of these variables in our analytical sample are described in Table 1.

2.2 Methods

We employed a fixed effects regression (FE) method in our empirical analyses because it allowed us to reduce the omitted variable bias related to unobserved (and observed) time-invariant, unit-specific heterogeneity. This means that we controlled for factors such as personality, ethnicity, cultural background, immigration status, and country of residence, which are automatically absorbed by individual fixed effects (Andreß et al., 2013). In our older population, where the education levels rarely change, this factor was also effectively controlled for. To account for common shocks and temporal heterogeneity (such as COVID-19 pandemic), we included a full set of time dummies (survey waves) in all specifications, thus estimating a two-way fixed effects model with individual and time fixed effects.

We first tested the potential asymmetry of the within-regression estimates by utilising the *asymmetric first-difference model estimated with Toeplitz 1 GLS* method developed by Allison (2019). In other words, we examined whether a negative change in partner's life satisfaction had a different effect than a positive change. There were no meaningful differences between positive and negative changes (see Table S3 in the Supplementary file), so we opted to proceed with a traditional fixed effects estimation which was more parsimonious and suitable for our analysis. Furthermore, to assess the suitability of fixed effects models, we examined the within-individual variation in life satisfaction across waves. The within-

Table 1 Basic statistics of the independent variables and the moderators in the analytical sample (155,494 observations from 2–7 pooled waves)

	Men (obs.= 77,747)		Women (obs.= 77,747)	
	N	% of Men	*N*	% of Women
Age categories (range: 50–99 years)				
50–59 years	12,994	16.71	20,780	26.73
60–69 years	30,935	39.79	32,287	41.53
70–79 years	24,890	32.01	19,837	25.51
80 years and older	8,928	11.48	4,843	6.23
Household size (range: 2–11)				
Two household members	60,130	77.34	60,130	77.34
Three or more household members	17,617	22.66	17,617	22.66
Job situation				
Not employed	60,367	77.65	59,679	76.76
Employed	17,380	22.35	18,068	23.24
Is household able to make ends meet				
With great difficulty	6,771	8.71	6,773	8.71
With some difficulty	19,060	24.52	19,060	24.52
Fairly easily	24,466	31.47	24,474	31.48
Easily	27,450	35.31	27,440	35.29
Social network size (range: 0–7)				
One close other	25,152	32.35	15,852	20.39
Two close others	19,629	25.25	18,257	23.48
Three close others	15,737	20.24	18,678	24.02
Four or more close others	17,229	22.16	24,960	32.10
Number of chronic conditions (range: 0–14)				
No chronic conditions	16,950	21.80	18,086	23.26
One chronic condition	22,581	29.04	22,150	28.49
Two chronic conditions	17,551	22.57	17,226	22.16
Three or more chronic conditions	20,665	26.58	20,285	26.09
Number of ADL (range: 0–6) and IADL (range: 0–9) limitations				
No ADL or IADL limitations	65,737	84.55	64,002	82.32
One or two ADL or IADL limitation	7,736	9.95	9,496	12.21
Three or more ADL or IADL limitation	4,274	5.50	4,249	5.47
Given or received care				
No care given or received between partners	70,502	90.68	70,502	90.68
Respondent has given care, not received	2,866	3.69	3,594	4.62
Respondent has received care, not given	3,594	4.62	2,866	3.69
Partners give care to each other	785	1.01	785	1.01
Health difference [a]				
Same health status, both are well	21,791	28.03	21,791	28.03
Respondent is well, partner has disability/ chronic condition	14,903	19.17	15,166	19.51
Respondent has disability/ chronic condition, partner is well	15,166	19.51	14,903	19.17
Same health status, both have disability/ chronic condition	25,887	33.30	25,887	33.30

[a] Difference in health is assessed using ADL and IADL limitations, and the number of chronic conditions. Respondents are categorised as *being well* when no disabilities or chronic conditions are reported, and *having disabilities or chronic conditions* when one or more ADL/IADL limitations or two or more chronic conditions are reported

person standard deviation was 0.98 on a 0–10 scale, indicating sufficient temporal variation to support fixed effects estimation (see Figure S1 in the Supplementary file).

Our basic model specification is:

$$LSr_{it} = \beta_o + \beta_1 LSp_{it} + X'_{it}\beta_2 + u_i + \lambda_t + e_{it}$$

where LSr_{it} is the life satisfaction of the respondent 'i' at time 't', LSp_{it} is the life satisfaction of the partner, and X_{it} is a column vector containing the control variables included in the model. We specified 5 models, 4 of them with different control variables. In Model 1, there was only the main independent variable LSp_{it}. In Model 2, we included demographics and socioeconomic variables: the respondent's age, the household's size and ability to make ends meet, and the respondent's and partner's job situation. Model 3 added health-related covariates, functional limitations (ADL+IADL) and chronic conditions, for both the respondent and partner, and Model 4 complemented the prior models with an indicator for giving or receiving informal care. In the final Model 5, the social network size was also controlled for, in addition to covariates included in Model 4. In the fixed effects regression, u_i summarizes the unknown effects of time-constant unobserved heterogeneity at unit-level, λ_t denotes time (survey wave) fixed effects, and e_{it} is the idiosyncratic error for each unit 'i' in each time 't'. With time-demeaning, u_i disappears (Andreß et al., 2013).

The stepwise introduction of covariates in FE Models 1–5 enabled us to analyse the possible change and stability of the association between the life satisfaction of both partners (Hypothesis 1). The final fixed effects Model 5 was then utilised as a base for a moderation analysis, to test hypotheses 2–5.

The specification for the moderation models is:

$$LSr_{it} = \beta_o + \beta_1 LSp_{it} + X'_{it}\beta_2 + \beta_3 (LSp_{it} * Z_{it}) + u_i + \lambda_t + e_{it}$$

where LSp_{it}*Z_{it} is the interaction effect between the life satisfaction of a partner and the moderator in question. The main effects for time-varying moderators were also included, while the time-constant main effects were cancelled out in the FE estimation. Each moderator variable was analysed in a separate interaction model.

All analyses were estimated separately for men and for women to capture gender-specific patterns and to address the dyadic structure of the data, which violates the independence assumption of a regression analysis (Kenny et al., 2006). This setup partially mitigates simultaneity concerns arising from mutual dependence in the partners' life satisfaction. Nonetheless, correlated error terms across dyad members and potential endogeneity remain as limitations that fixed effects cannot fully resolve. As such, our estimates should be interpreted as robust associations rather than causal effects.

We apply robust standard errors (Huber/White/sandwich estimator) to all models of analysis to correct for possible heteroscedasticity.

To address cross-country differences in population size, we applied population weights in all regression analyses. These weights adjust for the overrepresentation of smaller countries due to the fact that some smaller countries have relatively large sample sizes and align the sample more closely with the actual population structure of adults aged 50 and above, based on World Bank data (2022). We assigned each country its total 50+population and divided this by the number of observations in that country-wave combination, yielding raw popu-

lation weights. These were then normalized by dividing by 10,000 to ensure the weights remained on a practical numerical scale for regression estimation. For fixed effects panel models, we used person-level weights based on the individual's final panel observation. While these weights improve the representativeness, it is important to note that cross-country variation in survey participation and data completeness, particularly in the availability of couple-level panel data, may still limit the full generalizability of the findings.

3 Results

3.1 Descriptive Statistics

The mean of life satisfaction in our sample was similar among men (mean 7.93) and women (mean 7.91). Figure 1 illustrates the distributions of life satisfaction scores. The respondents' ages varied between 50 and 99 years, with largest category of 60–69 years for both men (40% of men) and women (41.5% of women). Overall, there were only minor differences in descriptive statistics between genders. The size of the social network of a respondent, however, was larger for women than for men. Third of men (32%) had only one close other, whereas a third of women (32%) had four or more close others (Table 1).

The distribution of life satisfaction of couples in our sample is presented in Table 2. The lowest, middle, and the highest life satisfaction scores of male and female respondents are cross-tabulated using all available person-wave observations across seven waves. Life satisfaction scores (measured on a 0–10 scale) are assigned into three ordinal categories based on the distribution of responses, which is strongly skewed. Each couple appears multiple times in the table, reflecting changes in life satisfaction over time.

The largest share of men and women (34%) fall into the middle category, corresponding to scores of 8–9 on the original 0–10 scale. Overall, partners tend to report similar levels of life satisfaction: in 59 per cent of cases, both male and female partners are set in the same category. However, in more than one third of couple-wave observations, partners are placed in different life satisfaction groups. Extreme discordance is rare, with fewer than five per cent of couples combining the lowest (0–7) and highest (10) categories. Approximately 17 per cent of couples report low life satisfaction for both partners, while 8 per cent report the highest category for both (Table 2).

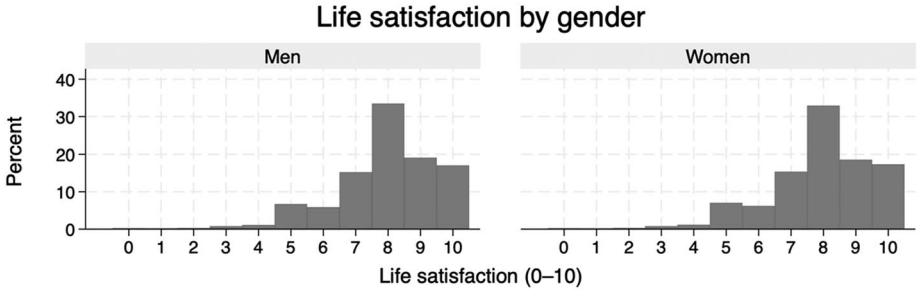

Fig. 1 Distribution of life satisfaction by gender. The average life satisfaction for men was 7.93 (sd. 1.61) and for women it was 7.91 (sd. 1.62)

Table 2 Distribution of life satisfaction of couples (person-wave observations across seven waves)

	Men			
Women	Lowest SWB (0–7)	Middle SWB (8–9)	Highest SWB (10)	Total
	n (%)	*n* (%)	*n* (%)	
Lowest SWB (0–7)	13,364 (17.19)	9,152 (11.77)	1,740 (2.24)	24,256 (31.20)
Middle SWB (8–9)	8,625 (11.09)	26,065 (33.53)	5,344 (6.87)	40,034 (51.49)
Highest SWB (10)	1,628 (2.09)	5,660 (7.28)	6,169 (7.93)	13,457 (17.31)
Total	23,617 (30.38)	40,877 (52.58)	13,253 (17.05)	77,747 (100.00)

Notes: SWB refers to life satisfaction score (range 0–10)

3.2 How Is the Respondent's Life Satisfaction Related To their Partner's Life Satisfaction?

The association between the respondent's and their partner's life satisfaction is consistently significant in Models 1–5 (Table 3). A one point increase in the partner's life satisfaction corresponds to an increase of approximately 0.3 points in the respondent's life satisfaction, regardless of the control variables included. This indicates that the association between the partners' life satisfaction is independent of changes in demographics and socioeconomic situation, health related factors, informal care, and social relations (the coefficients for control variables are presented in Tables S4 and S5 in Supplementary file). Furthermore, the association is similar for men with female partners and women with male partners.

The associations between control variables and the respondent's life satisfaction are not the focus of this study, but their coefficients can be found in the Supplementary file (Tables S4 and S5).

3.3 Does Health Difference, Receiving or Giving Care, Social Network Size or Country of Residence Moderate the Association between Partners' Life Satisfaction?

Next, we analyse the role of potential moderators. In each moderation model, we control for the age and social network size of the respondent, the size of the household and the households' ability to make ends meet, the job situations of both partners, the health of both partners and caregiving between partners (as in Model 5 shown above).

3.3.1 The Moderating Effect of Health Differences between Partners

When considering the moderating role of health differences between partners, we find that the association between a partner's life satisfaction and the respondent's own life satisfaction varies slightly between health combinations for both men and women (Model 6). The interaction is statistically significant for both men and women. To interpret this interaction, we calculated the average marginal effects of the partner's life satisfaction across health statuses. The average marginal effects are shown in Fig. 2 and Table S6. For male respondents, the association is the weakest when the respondent is healthy and the partner has a disabilities or chronic conditions (AME = 0.231), and modestly stronger when both partners are either healthy (AME = 0.288) or have some health issues (AME = 0.298). For female

Table 3 The association between the partner's life satisfaction (FE models 1–5), separately for male respondents and female partners (Part a) and for female respondents and male partners (Part b)

	Part a: Male respondent $N=77{,}747$, N. of groups = 24,760, Obs./ group = 2–7 (avg. 3.1)				
Variables [a]	Model 1 [b]	Model 2 [c]	Model 3 [d]	Model 4 [e]	Model 5 [f]
Life satisfaction of a partner	0.286***	0.279***	0.272***	0.272***	0.272***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Intercept	5. 633***	5.339***	5.467***	5.469***	5.466***
	(0.069)	(0.083)	(0.088)	(0.088)	(0.088)
	Part b: Female respondent $N=77{,}747$, N. of groups = 24,760, Obs./ group = 2–7 (avg. 3.1)				
Variables [a]	Model 1 [b]	Model 2 [c]	Model 3 [d]	Model 4 [e]	Model 5 [f]
Life satisfaction of a partner	0.294***	0.286***	0.281***	0.281***	0.280***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Intercept	5.406***	5.073***	5.253***	5.255***	5.232***
	(0.076)	(0.087)	(0.089)	(0.089)	(0.090)

Notes: Models using population weights. Robust standard errors are in parentheses. Significance levels: *** $p<.001$, ** $p<.01$, * $p<.05$

[a] Coefficients for control variables are presented in Tables S4 and S5 in Supplementary file. Time (wave) is controlled in every model, coefficients not shown

[b] Uncontrolled model

[c] Controlling for household size, households' ability to make ends meet, and job situations of both partners

[d] Model 3 + controlling for health of both partners

[e] Model 4 + controlling for caregiving

[f] Model 5 + controlling for social network size of respondent

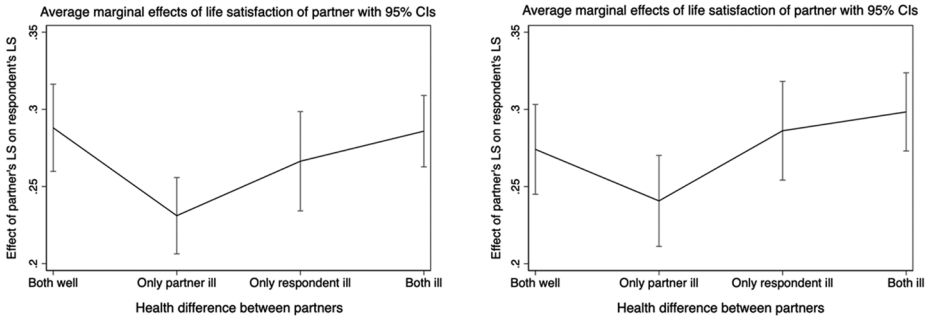

Fig. 2 Average marginal effects of the partner's life satisfaction on the respondent's life satisfaction across health status combinations. *Note*: cross-product interaction terms are statistically significant for both men (Prob > F = 0.001) and women (Prob > F = 0.016)

respondents, a similar pattern emerges: the association is weakest when the respondent is healthy and the partner is not (AME = 0.241), and strongest when both report health issues (AME = 0.298) or both are healthy (AME = 0.274) (Fig. 2; Table S6). Contrary to Hypothesis 2, the results suggest that the association between a partner's life satisfaction and the respondent's own life satisfaction is not stronger in couples with greater health differences.

Although statistically significant, the differences in effect sizes across health status categories are modest in both models, suggesting that health differences may modestly shape the strength of the association between life satisfactions, but do not alter its consistency.

3.3.2 The Moderating Effect of Giving or Receiving Care

For men (Model 7), we find evidence that the effect of their partner's life satisfaction on the respondent's own life satisfaction is moderated by informal caregiving (F-test for joint significance of interaction terms $p = .018$). The association is weakest when the male respondent is the sole care provider and strongest when care is mutual or primarily received. While statistically significant, the differences in marginal effects are modest. The estimated effects range from 0.222 (sole caregiver) to 0.350 (mutual caregiving) (Fig. 3; Table S7).

For women with male partners (Model 7), the results are similar to those observed for men with female partners (Fig. 3, Table S7). The interaction is not, however, statistically significant. Nevertheless, the pattern of effects mirrors that of male respondents, with the weakest association found when the respondent is the sole caregiver and the strongest when care is mutual or primarily received. These findings provide tentative support for Hypothesis 3a in cases where care is received. This hypothesis proposed that giving or receiving care strengthens the association between partner's life satisfaction because the quality of the relationship and personal resources are depleted. In contrast, when care is given, the caregiver may adopt a more professional role, which can create emotional distance between spouses and weaken affective contagion, thus supporting hypothesis 3b.

3.4 The Moderating Effect of Social Network Size of Respondent

We also examined whether the association between a partner's life satisfaction and the respondent's own life satisfaction varied by the size of the respondent's social network

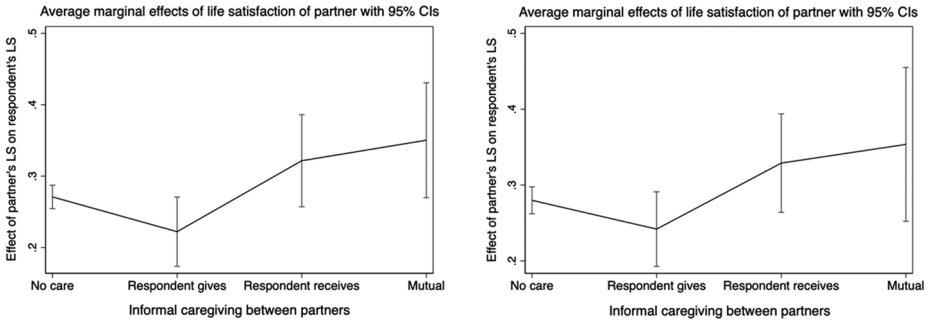

Fig. 3 Average marginal effects of the partner's life satisfaction on the respondent's life satisfaction by informal caregiving status. Note: cross-product interaction terms are statistically significant for men (Prob > F = 0.018), but not for women (Prob > F = 0.069)

(Model 8). For men, the interaction was not statistically significant, whereas for women it was. The average marginal effects across categories of social net size are shown in Fig. 4 and Table S8.

Among male respondents, the estimated effect of a partner's life satisfaction is relatively stable across social network sizes. In contrast, for female respondents with male partners, a clearer pattern emerges: the association is strongest when women report only one close other in their network (AME = 0.323), and declines as the network size increases, reaching 0.250 when four or more close others are reported (Fig. 4; Table S8). These findings support Hypothesis 4, which posited that the influence of a partner's life satisfaction would be more pronounced when the respondent's own social network is limited, particularly among women.

3.4.1 The Moderating Effect of Country of Residence

Lastly, the partner's life satisfaction had a slightly different effect on the life satisfaction of both male and female respondents in different countries (Model 9). For both men and women, the effect of their partner's life satisfaction on their own life satisfaction was strongest in Hungary, Slovakia, Greece, and Bulgaria. The weakest associations for men were found in Finland, France, Switzerland, Sweden, Denmark, Belgium, and the Netherlands (see Fig. 5). For women, the weakest associations were detected in France, Sweden, Denmark, Cyprus, Finland, Switzerland, Netherlands, Belgium, and Luxemburg (see Fig. 5). Interestingly, it seems that in countries with a higher overall level of life satisfaction (Finland, Sweden, Denmark, and Switzerland) the association between partners' life satisfaction is weaker (Fig. 5; Table S1).

It is also important to note that the number of observations varies considerably between countries (see Supplementary Table S1). Although population weights were applied to adjust for these differences, the relatively small sample sizes in some countries (e.g. Cyprus, Bulgaria, Lithuania) may still affect the precision and stability of country-specific estimates. As such, comparisons between countries should be interpreted with caution.

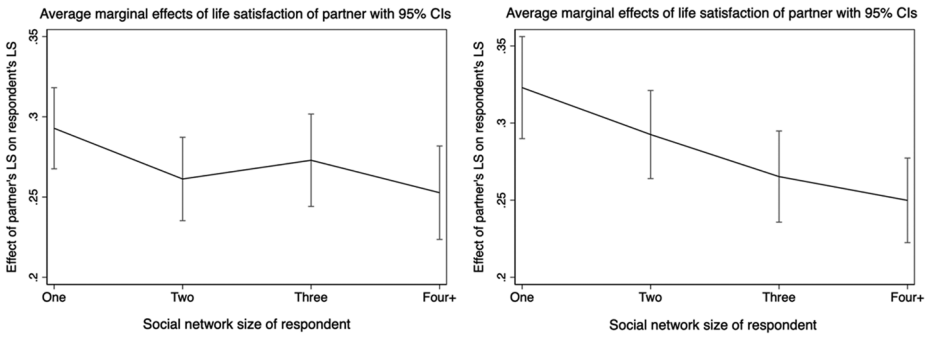

Fig. 4 Average marginal effects of a partner's life satisfaction on the respondent's life satisfaction by the size of the respondent's social network size. *Note*: cross-product interaction terms are statistically significant for women (Prob > F = 0.005), but not for men (Prob > F = 0.122)

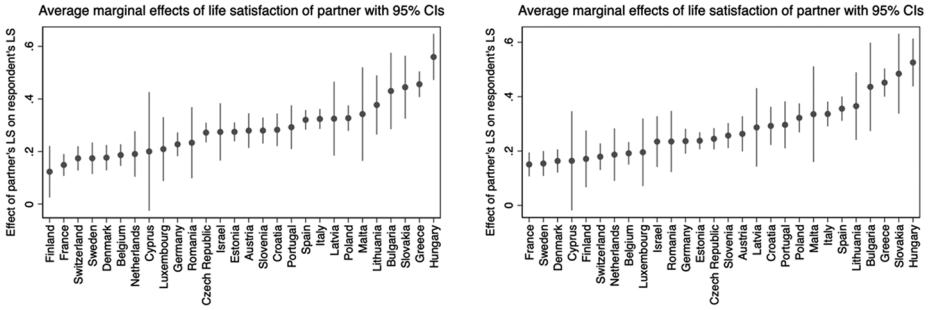

Fig. 5 The average marginal effects of the partner's life satisfaction on respondent's life satisfaction by country of residence. *Note*: the countries are ordered by effect size. Cross-product interaction terms are statistically significant for both men and women (Prob > F = 0.000)

3.4.2 Robustness Checks

To assess the robustness of our findings to alternative model specifications that better reflect the ordinal nature of the dependent variable, we estimated fixed effects ordinal logistic regression models as a supplementary analysis. These robustness checks were limited to baseline models used to test Hypothesis 1. We did not estimate moderation models using fixed effects ordinal logistic regression due to the increased complexity and limited interpretability of interaction effects in nonlinear fixed effects models. The models were implemented using the feologit command in Stata 18, which applies the blow-up and cluster (BUC) estimator developed by Baetschmann et al. (2015). This approach accounts for unobserved, time-invariant individual heterogeneity while preserving the ordinal nature of the life satisfaction scale (0–10), relying only on the rank ordering of responses rather than their cardinal values. Given the skewed distribution of the life satisfaction (see Fig. 1), the ordinal logit framework offers a useful robustness check. The results, reported in Table S9 in supplementary file, are consistent with those from our linear fixed effects models in both sign and significance. In the feologit models, we treated the key independent variable (life satisfaction of a partner) as continuous to ease interpretation and ensure comparability with our main analysis. Moreover, there is no strong theoretical or empirical reason to expect that its effect on the outcome would be nonlinear.

We retained the linear fixed effects model as our primary approach due to its transparency and ease of interpretation. While both approaches remove time-invariant heterogeneity, the linear model produces coefficients on a cardinal scale, supporting comparability. Though it assumes continuity of the outcome, it remains a widely used strategy in applied panel data analyses. Together, the two models offer complementary perspectives, reinforcing the robustness of our findings.

4 Discussion

Understanding the determinants of life satisfaction over the life course has attracted a lot of scientific attention in recent decades. However, the interrelationship between subjective well-being of family members has attracted surprisingly little empirical attention, despite a

solid theoretical understanding about interdependence in close relationships (Elder, 1987; Broderick, 1993).

In this article, we demonstrated that the life satisfaction of older partners is interrelated, showing a consistent and statistically significant association across all models. A one-point increase in a partner's life satisfaction corresponded to an approximate 0.3-point increase in the respondent's life satisfaction, even after adjusting for demographic, socioeconomic, health-related, caregiving, and social network characteristics. Although modest in size, this effect is meaningful given the limited within-individual variation in life satisfaction over time. Robustness checks using fixed-effects ordinal logistic regression further supported these findings, yielding odds ratios of around 1.5 across all models. In this context, an odds ratio of 1.5 implies that for each one-point increase in a partner's life satisfaction (on a 0–10 scale) the odds of the respondent reporting a higher life satisfaction increased by about 50 per cent. This reinforces the conclusion that the association is not only statistically robust but also substantively meaningful. These findings align with those by Bookwala and Schulz (1996) and Hoppmann and Gerstorf (2009), among others. However, in our analysis, the pattern was similar for both genders, whereas earlier literature suggested that wives may be more susceptible to dyadic interdependence in later life due to women's typically greater emotional investment and more active role in social relationships (e.g. Hoppmann & Gerstorf, 2009).

Furthermore, the hypothesised moderation effects for health differences, caregiving roles, social network size and country received partial support. The expectation of stronger interrelatedness when partners are more dependent on each other can be situated within family systems theory, which conceptualises romantic partners as interdependent members of a system wherein changes affecting one individual are likely to influence the well-being of the other (Broderick, 1993; Whitchurch & Constantine, 1993). The linked lives perspective emphasises the interconnectedness of individuals' life courses and the mutual influence of well-being within close relationships (Elder, 1987; Settersten, 2015). Greater dependence may manifest in situations of health disparity that potentially lead not only to caregiving but also to asymmetry in household responsibilities and daily functioning or financial dependence, or when partners give or receive personal care from the other, and when one's social network is small. Additionally, we expected country differences to emerge to reflect differences in formal care systems, financial security, culture, and other social norms. The sizes of these moderating effects were, however, small. We also acknowledge that these findings may be influenced by selection and endogeneity. However, to our knowledge, we provide the first evidence on couple-specific factors that could affect the interrelatedness of well-being between partners.

First, health differences between partners modestly moderated the association, although in the opposite direction than predicted in our second hypothesis. The association was slightly weaker when the respondent was healthy, and the partner reported chronic conditions or disabilities. This may reflect emotional disengagement as a coping mechanism in asymmetrical health dynamics. It is suggested that to prevent the affective contagion, partners may emotionally disengage when health problems emerge, and romantic relationship starts to resemble "care relationship" (Rahmani et al., 2018; Hong & Coogle, 2016). While these interaction effects were statistically significant, the differences in effects sizes were modest. Relationship satisfaction may also buffer emotional contagion of negative moods (Saxbe & Repetti, 2010), but such mechanism could not be tested with SHARE data.

Second, caregiving arrangements moderated the association between the partners' life satisfaction, offering support for both Hypothesis 3a and 3b. Among men, this association was weakest when the respondent was the sole caregiver and strongest when care was mutual or primarily received. A similar, though statistically nonsignificant, pattern was observed among women. These findings tentatively support Hypothesis 3a, which suggested that caregiving, whether giving or receiving, may increase emotional interdependence by heightening stress and straining personal resources. However, the weaker association found when the respondent was the sole caregiver also aligns with Hypothesis 3b. In such cases, caregiving may shift the relational dynamic from mutual intimacy to more instrumental role, weakening emotional attunement. Our results extend prior research that has largely focused on the individual burden of caregiving (e.g. Pinquart & Sörensen, 2011; Bauer & Sousa-Poza, 2015; Gerlich & Wolbring, 2021) by showing that caregiving roles may also shape the emotional interdependence between partners. While caregiving clearly affects individual well-being, it may simultaneously alter how partners respond to each other emotionally. Interestingly, we observed similar patterns among men and women, despite earlier findings suggesting that women bear more caregiving related strain (Verbakel et al., 2017). This invites further investigation into how gendered caregiving norms influence emotional connectedness within couples.

Third, our fourth hypothesis regarding social networks was supported for women but not for men. For women, the association between their own and their partner's life satisfaction was strongest when they reported only one close social tie and weakened as the size of their social network increased. For men, by contrast, the association remained stable for all levels of social network size. Although the differences in average marginal effects were modest for both men and women (range = 0.040 for men; 0.073 for women), the findings suggests that women may rely more heavily on their partner's well-being when social network is limited, in line with family systems theory (Broderick, 1993; Whitchurch & Constantine, 1993). In general, previous research has shown that larger social networks are associated with better well-being, offering emotional support and resources that help individuals manage stress and family demands (Charles & Carstensen, 2010; Lansford, 2018). Our findings extend previous research by showing that social networks may indirectly support well-being by buffering emotional interdependence between partners. Broader networks can reduce vulnerability to emotional contagion in times of distress, as alternative sources of support may lessen the impact of a partner's struggles. This buffering effect appears more pronounced for women, who may be more attuned to emotional dynamics within the couple. Thus, close relationships outside the partnership not only promote well-being directly but may also protect individuals from the emotional consequences of their partner's well-being.

Fourth, as anticipated in our fifth hypothesis, the association between partners' life satisfaction varied between countries. The strongest associations were observed in Bulgaria, Greece, Hungary, Slovakia, while the weakest were found in Belgium, Denmark, Finland, France, Netherlands, Sweden, Switzerland—countries that also tend to report the highest average life satisfaction. This pattern suggests that in contexts where well-being is generally high, individuals may depend less on their partner's well-being for their own life satisfaction. However, while these patterns are intriguing, they should be interpreted with caution. Despite the use of population weights, country-level comparisons may still be influenced by differences in survey participation, sample composition, and data completeness.

Country-level characteristics may explain these differences, while understanding the mechanisms is beyond the scope of this article. Many of the countries with stronger partner life satisfaction associations (e.g. Bulgaria, Hungary, Slovakia) share a post-Soviet history, lower GDP levels, and weaker welfare systems, and tend to report higher income inequality (Dorjnyambuu, 2025; Myant & Drahokoupil, 2015). These structural and historical factors may shape relationship dynamics. Moreover, cultural values could play a role. Countries with weaker associations often score higher on Hofstede's individualism index. Developed and Western nations are generally characterized by individualistic values, whereas collectivist values are more common in less developed and Eastern regions (Hofstede, 2011), suggesting that more individualistic societies may foster greater emotional independence between partners.

These findings underscore the importance of considering broader societal context when examining emotional interdependence within couples. A cross-national perspective on macro-level influences such as economic, historical, and cultural factors offers a promising direction for future research on building age friendly societies. While the differences between countries indicate that the interrelatedness is amended by various societal factors, we still observe a strong relationship between partners in all countries. To generalise the results even further, we should however note that our study population has been born in 1956–1972 with different expectations regarding marriage, care and retirement, for example. How the linked lives perspective is reflected in cohorts born later is a question to be explored in the future.

Our main analyses rely on linear fixed effects models, which treat life satisfaction as a continuous variable despite its ordinal and skewed distribution. We chose this approach for its interpretability, flexibility in modelling interactions, and the ability to control for unobserved time-invariant heterogeneity. As a robustness check, we also estimated fixed effects ordinal logistic models, which yielded consistent results. While the ordinal models better reflect the outcome's distribution, they are more limited in estimating interaction effects and prone to incidental parameter issues. Thus, both approaches have trade-offs, and we view them as complementary in reinforcing the robustness of our conclusions.

Although our models adjust for time-invariant unobserved heterogeneity and a wide set of time-varying covariates, we do not interpret associations as causal. Reciprocal influence between partners' life satisfaction, correlated error terms, and residual confounding due to unobserved time-varying factors may still bias the results. Moreover, the dyadic nature of our data raises concerns about simultaneity and endogeneity that are not fully resolved by the fixed effects approach, even though we partially mitigate this by estimating gender-stratified models (thus breaking the simultaneity loop within models). Survey year fixed effects were included to account for time-specific shocks, including the COVID-19 pandemic. While this controls for broad pandemic-related shifts, the unique social and psychological dynamics of COVID-19 may have affected couple well-being in ways which were not fully captured by our design.

A fixed effects estimator relies on within-person variation, excluding individuals with stable life satisfaction across waves. While this may raise concerns about representativeness, we view it as appropriate for a design focused on temporal dynamics. The observed within-person variation (mean SD = 0.98 on a 0–10 scale) suggests that the estimates are based on a sizable and heterogeneous sample (Figure S1 in the Supplementary file). Still,

this focus on change may limit generalizability, and future research could benefit from approaches that capture both stable and dynamic aspects of well-being.

Our sample may also be biased toward the "happy and healthy" as married (or cohabiting) people are more likely to be healthier and to live longer (Lawrence et al., 2019). In general, as shown by Muszyńska-Spielauer and Spielauer (2022), cross-sectional data from SHARE is biased due to health-related attrition. Individuals in better health are more likely to remain in the sample, leading to an overrepresentation of healthier respondents and overestimates of population health. In general, it should be noted that older couples are a somewhat select group. Due to assortative mating, partners are likely to share a common socioeconomic status and background, values, and other characteristics that are also associated with life satisfaction. Shared living conditions and events affect both partners and their life satisfaction, and all these are likely to affect the chances that partners grow old together.

Finally, our measure of social network size was only available in waves 4, 6, 8, and 9. We imputed values for missing waves (2,5, and 7) using responses from adjacent waves. While this approach involves assumptions, a sensitivity analysis using only observed data (waves 4,6,8, and 9; see Supplementary Tables S10 and S11 and Figure S2) yielded similar results. The imputation strategy allowed us to retain a larger and more balanced longitudinal sample (155,494 vs. 97,822 observations), thereby enhancing temporal continuity and external validity.

Because ageing societies are facing challenges maintaining socially and economically sustainable well-being services, better understanding of potential aspects related to health and social care demand is needed. Our results imply that health and well-being interventions, for example, may be more effective if their scope is broadened to cover both parties in older couples. Furthermore, if cost-effectiveness analyses of these interventions are done without accounting for externalities (see also Bobinac et al., 2010), we might end up allocating public funds on suboptimal grounds.

Several interventions have been developed to support the health and well-being of family members in caregiving roles, particularly in the context of chronic illness and dementia. The REACH II and REACH VA programmes, for instance, have demonstrated significant benefits for dementia caregivers, including reduced depression and burden, improved sleep, and even reduced healthcare costs for care recipients (Elliott et al., 2010; Nichols et al., 2017). Additionally, an umbrella review by Smith et al. (2020) found that multicomponent psychosocial interventions can improve psychological outcomes for family members, while also enhancing family relationships and marital functioning. Supporting this, Martire et al. (2010) showed that couple-oriented interventions for chronic illness led to improvements in relationship quality, health behaviours, and psychological well-being for both partners, emphasising the mutual influence partners have on each other's health. These findings strengthen the case for extending the scope of health and well-being interventions to both members of older couples or caregiving dyads.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s11205-025-03699-3.

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Data availability The data used in this study come from the Survey of Health, Ageing and Retirement in Europe (SHARE) and cannot be shared by the authors due to data use restrictions. However, SHARE data are available free of charge to all researchers upon registration at https://share-eric.eu. The Stata do-files used for data preparation and analysis in this study are available from the author upon reasonable request.

Declarations

Ethical approval No additional ethical approval was required for this study, ethics approval is obtained by the Survey of Health, Ageing and Retirement in Europe (SHARE) central organisation. SHARE data is publicly available for research.

Competing interests The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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