

Aida Solé-Auró & Clara Cortina

Exploring the role of family ties on life satisfaction in later life in Europe

Abstract:

We analyzed the relationship between family ties and the life satisfaction of people between the ages of 50 and 85 years in 13 European countries. We aim at determining the effects of partnership (being currently in a partnership) and parenthood (having remained childless). We use individual-level data from the sixth wave of the Survey of Health, Ageing and Retirement in Europe (SHARE). The analyses are restricted to respondents who are partnered or who have ever been married. We apply a multivariate analysis to examine the association of life satisfaction with family ties for men and for women. We add controls for age groups and education level, and we pay special attention to the role of individuals' network size. Our findings indicate that in all countries, having no partner has the strongest and most negative association with life satisfaction. However, there was no clear association between not having children and life satisfaction across countries. We also find an important role of some protector variables, such as having a strong network which, in most countries, significantly increase one's life satisfaction. We find that there is a relationship between individuals' family situation and life satisfaction, but it is restricted to being in a partnership. The protection factor of having a partner improves one's life satisfaction at older ages much more than protection by having children. This finding can reduce the concern about the long run implications of increasing childlessness among younger cohorts as it is not necessarily associated to a higher risk of low life satisfaction.

Key words: family ties, life satisfaction, Europe, old people

Introduction

Family life and family history play an important role in health conditions and in mortality differentials in later life. The relationship between family life and subjective indicators of well-being (i.e. life satisfaction) is an increasingly interesting issue in a context in which new family arrangements along with an aging population are undergoing important changes that could have an impact on people in their advanced stages, according to the life-course perspective. The implications of childlessness on social isolation and lack of support in their later life has already been explored and might imply an increasing demand for the public provision of long-term care services (Albertini/Mencarini 2014).



In this article we analyse the relationship between family ties and life satisfaction for people 50 years of age and older in 13 European countries. We are specifically interested in distinguishing between partnership and parenthood ties: whether people have remained childless or have had any children and how far away they live, as well as whether they are currently in a partnership. We restricted our analysis to a sample of people who have ever been married in order to overcome the association between not having children and never having had a partner.

The importance of this investigation is to establish how quality of life is shaped by the family situation. Our aim is to understand whether the presence of a co-residing partner and/or the presence of children living in proximity, interact with other components of elderly people's social life. Therefore, we explore the role of mediator factors offering protection at older ages, such as the size of the social network. Finally, we explore gender differences in order to understand to what extent the relationship of the family constellation and social networks and support work differently for men versus for women.

The article is structured as follows: First, we review the latest findings on life satisfaction and subjective wellbeing indicators. Second, we present the key elements of new family trends in Europe in the last decades. Third, we formulate our main research hypotheses based on the theoretically complex relationship between family life and life satisfaction. After presenting the data and methods used, we report the findings of our analyses and we discuss their implications.

Life satisfaction: The importance of subjective well-being indicators

Concerns about quality of life, particularly in old age, have been investigated during the last decades in the social and behavioral sciences (George 2006; Solé-Auró/Lozano 2019). Population well-being has been largely examined by computing trends in healthy life expectancy. Particularly, at the population level, healthy life expectancy is more than a measure of health. It is an indicator of an important dimension of well-being as quality of life. Today, subjective indicators such as life satisfaction are commonly used by quantitative social scientists to better understand our societies' well-being.

Health is always a dimension of well-being and quality of life. High levels of happiness might influence longevity by reducing mortality through several direct and indirect mechanisms. Koopmans et al. (2010) found that increased levels of happiness predicted a lower mortality rate, and therefore happier people live longer. Being happy has been associated with having lower incidence of chronic conditions (Siahpush et al. 2008). Some empirical analyses have indicated that happier people have lower levels of hypertension (Blanchflower/Oswald 2008) and are able to manage stress better than their unhappier counterparts (Papousek et al. 2010). On opposite side, low levels of life satisfaction, or dissatisfaction, are associated with increased morbidity and mortality (Mojon-Azzi/Sousa-Poza 2011; Koivumaa-Honkanen et al. 2000). Individuals with low levels of happiness are also more likely to have poor self-rated health, physical disabilities, depressive symptoms, and other common health conditions (Strine et al. 2008).

Patterns of subjective well-being change throughout the life course. The latest evidence for the age pattern of happiness points at an upside-down U-shape with the highest levels observed in midlife (Easterlin 2010). Different assessments of males and females of subjective well-being have also been well studied. Some studies have demonstrated that women tend to be (slightly) happier than men, particularly in Western Europe (Arrossa/Gandelman 2016). Considering happiness across the lifespan, and in countries with high life expectancies, one would expect that older people fare worse and, as a consequence, have lower levels of happiness than their younger counterparts. But when analyzing gender differences in this pattern, some studies have shown that men are happier or more satisfied with life than women across all ages even though the gender gap widens with age (Pinquart/Sörensen 2001) while others found that women at the beginning of life seem to be happier than men. However, with women, the pattern reverses, (Easterlin 2010), as at middle adulthood women tend to report higher levels of stress than men, which might make them feel less happy (Jacobs/Gerson 2004; Mattingly/Sayer, 2006).

New family trends: Changing partnership patterns and increasing childlessness

In Western societies family trends are being redefined as a result of new nuptiality and fertility dynamics. First, partnership patterns across the life course have changed extraordinarily in Western societies in the last few decades (Perelli-Harris/Lyons-Amos 2015). The main drivers have been the postponement of family and partnership formation (Sobotka/Toulemon 2008), the diffusion of premarital cohabitation and cohabitation as an alternative to marriage (Kiernan 2004), and increasing union dissolution rates (Kalmijn 2007).

Second, fertility patterns have undergone substantial changes, among which is the notable increase of childlessness in Europe in the second half of the twentieth century. The proportion of women who had not had children by the end of their reproductive age has considerably increased—in Western European countries for the cohorts born since 1945, in Southern European countries for the cohorts born since 1955, and, a little bit later in Eastern European countries—since 1965 (Devolder/Merino 2007). Female childlessness has reached levels close to 20% in such countries as Italy, The Netherlands, Switzerland, Belgium, and the UK for the cohorts born in the 1960s while the Eastern European countries show the lowest levels (Miettinen et al. 2015). This general increasing trend has not altered the consistent gender differences defined by higher childlessness for men than for women.

This increase of childlessness is clearly associated with the effects of the postponement of family formation and childbearing (González/Jurado-Guerrero 2006). But to understand the phenomenon, one must distinguish between voluntary and involuntary childlessness, which might affect differently individuals' levels of life satisfaction. Not having had children as a result of a personal life project might positively affect one's life satisfaction while not having been able to become a parent (due to infecundity, the absence of a partner or to the career costs associated to parenthood) most probably impacts life satisfaction negatively. We might also expect marital childlessness to be more associated with

involuntary factors than with voluntary decisions due to a selection into partnership of those with no childlessness intentions or ideals (Miettinen/Szalma 2014).

Life satisfaction and family life: Overview of a complex relationship

Before examining the relationship between family ties and life satisfaction, we must address the problem of selection. Selection can operate in opposite directions, as the specific characteristics of the selected group can be positively or negatively associated with the outcome variable. Healthier and happier individuals are more likely to marry (Stutzer/Frey 2006) and to have children, and this partially explains why married people and parents are healthier than unmarried and childless adults. However, alternative studies have suggested that recent changes in the socio-economic profile of the childless population could compensate for the effects derived from not having had children and operate as a positive selection (Cwikel/Gramotnev/Lee 2006).

Despite these selection issues, the life course perspective states clearly that family formation at young ages has an impact on one's circumstances at later stages. Fertility and mortality patterns, in particular, shape the family ties over a lifetime. Several studies have outlined the consequences of being childless on different aspects of life conditions in the long run, such as social networks, social support, income, and intergenerational transfers (Albertini/Kohli 2009, 2017; Klaus/Shnettlar 2016, Kreyenfeld/Konietzka 2017). However, other studies have shown that marital history more strongly predicts social support than parental status itself (Penning 2014; Schnettlar/Wöhler 2016). This is in line with the previous evidence on the crucial effect of marital status on mortality, showing that married people live longer than people who are unmarried (Vallin/Meslé/Valkonen 2001; van Poppel/Joung 2001).

Marriage has been shown to have beneficial effects on health (Waldron/Hughes/Brooks 1996) and so has living with a partner (Gumà/Solé-Auró/Arpino 2019). However, in order for us to summarize the relationship between family and life satisfaction or happiness at older ages, it is important to distinguish between the immediate effects caused by family events such as marriage and the birth of a child and the long-term effects that can only be understood considering the whole family life trajectory.

Considering first the immediate effects, some authors have argued that partnerships and family ties (together with good relations with others), rather than economic circumstances, are strong determinants of happiness and possible explanations of gender differences (Azizi et al. 2017). Regarding parenthood, numerous studies have supported the finding that the well-being effects of children on mothers or fathers are absent or even negative as a result of the combination of stressful situations and positive incentives (Veenhoven 1984; McLanahan/Adams 1987; Umberson/Pudrovska/Reczek 2010). Others have identified that these effects vary over time as studies have shown that parents' happiness increases in the years around giving birth but then decreases to the point it was at before children arrived (Myrskylä/Margolis 2014). Regarding partnerships, it has been shown that the benefits from marriage are largely different from one couple to another, depending mainly on their educational homogamy and the distribution of the household

tasks (Stutzer/Frey 2006). Moreover, previous studies have shown that widowhood has a clear and strong negative impact on life satisfaction that dissipates over time while the immediate effect of a divorce is rather positive (Clark et al. 2008).

Second, regarding the long-term consequences, not having had children might impact ulterior life satisfaction not only through the frustration of the reproductive project (Esteve/Devolder/Domingo 2016) but more importantly through the absence of care provision and emotional support at older ages when there are no adult children (Abelán/Esparza 2009). Recent evidence has shown that support networks of elderly non-parents are weaker than those of parents (Albertini/Kohli 2009) or that support networks are not that different between parents and non-parents, but that non-parents are more likely to be helped by non-relatives and non-profit organisations (Albertini/Mencarini 2014). The implications of not having a partner might differ between men and women due to the gender gap in re-partnering, among other factors. After a divorce or the loss of the partner, the likelihood of re-partnering is higher for men than for women (Di Nallo 2019).

Building on previous evidence, in this article, we adopted a cross-sectional perspective to explore how people's life satisfaction at older ages is shaped by the fact of not having a partner and/or not having children. Within this perspective, we focused on the instrumental nature of family ties, understanding that primary kin are able to offer both emotional and material supports that are positively associated with an individual's life evaluation. Our main argument is that the effect of not having a partner or of being childless will be mediated by the extension of a social network and of social support. Therefore, our main hypotheses are the following:

H1: We expect that not currently having a partner will have a substantial negative association with life satisfaction, regardless of social network.

H2: We expect that being childless will have a moderately negative association with life satisfaction, but this association is mediated by the extent of social network.

H3: We expect that that not having children will affect both men and women, while we expect not having a partner will be more important for men than for women.

Data, measures and methods

Data

In this study, we used individual-level data from the Survey of Health, Ageing and Retirement in Europe (SHARE), a multidisciplinary longitudinal survey that is representative of the non-institutionalised population aged 50 years and older (Börsch-Supan et al. 2005; Börsch-Supan/Jürges 2005). The data collection instruments and study design have been harmonized to facilitate European comparisons of health, family circumstances, socioeconomic characteristics, and social and family networks across countries.

Our work is based on a cross-sectional analysis using data from the sixth (2015) wave of SHARE. We focused on the most recent data not only because our interest was to ad-

dress our research question in the present time, but also because this wave contains the social network module that measures individuals' personal social environment. The social network module contains a detailed description of respondents' personal social networks. The respondents can name a maximum of seven persons whom they consider confidants. Due to the large variability of the prevalence of childlessness across nations among people in their older ages (85-plus) and to avoid the effect of the high association between life evaluation and health conditions, we restricted our sample to women and men in 13 European countries (Austria, Belgium, Czech Republic, Denmark, Estonia, France, Greece, Germany, Italy, Spain, Slovenia, Sweden, Switzerland) who were aged 50 to 85 years of age and who lived with a partner (married or cohabiting) at the time of data collection or who currently did not have a partner but had ever been married (divorced and widowed). The reason to limit our analysis to ever married individuals is the strong association of never been married and childlessness: only 32% of never married individuals are parents while 93% of those who married are.

The total sample consisted of 50,777 individuals (22,310 men and 28,467 women) born in 1965 or earlier (see Table 2 for more details). The sample sizes varied by gender and country, with the largest samples coming from Belgium (4,964 respondents) and Estonia (4,776 respondents), while Switzerland had the smallest (2,417 respondents).

Measures

Dependent variable

Participants were asked to evaluate their life satisfaction by responding to a single question: "On a scale from 0 to 10 where 0 means completely dissatisfied and 10 means completely satisfied, how satisfied are you with your life?" In this work we used the scale (continuous variable) to analyze how individuals rated their life satisfaction level.

Explanatory variables

Our analysis had two main explanatory variables measuring the family ties: parenthood and partnership. First, we define parenthood in three categories considering the presence and residential proximity of children: i) those who were childless (had never had a child), ii) those who had at least one child (including biological, step, foster and adopted children) living less than 1 km away and iii) those who had at least one child and all children were living more than 1 km away. Second, we define partnership distinguishing three categories: i) those respondents who at the time of data collection were currently living with a partner (married or cohabiting); ii) those without a partner divorced; iii) those without a partner widowed.

We considered an additional variable associated with family life and family trajectory that might play a role as potential protectors of life satisfaction: the size of the respondents' social networks. It can reflect the degree of protection, potential care, and emotional support that the individuals could rely on. The variable ranged from 0 to 7, and we counted the number of persons a respondent identified as people with whom he or she most of-

ten discussed important things over the last 12 months. These people could include one's family members, friends, neighbors, or other acquaintances.

Control variables

Socio-demographic control variables included two age groups: younger adults from 50 to 64 years of age and older adults from 65 to 85 years of age. To assess whether educational inequalities in life satisfaction among older Europeans exists, we considered three educational groups, based on the level of education achieved, using the International Standard Classification of Education¹ (ISCED): "low" (where no or primary education corresponded to ISCED 0-1, and lower secondary education corresponded to ISCED 2), our reference category, "medium" (ISCED 3-4, higher secondary education) and "high" (ISCED 5-6, tertiary education). We added these control variables into the model due to their association with education and life satisfaction (Solé-Auró/Lozano 2019).

Methods

The aim of this article is to analyse the relationship between life satisfaction and parenthood and partnership across 13 European countries and to test whether this relationship differs for men and women. First, we document the average life satisfaction and the distribution of parenthood and partnership for men and women. Second, we provide information on the average life satisfaction by parenthood and partnership for men and women for the pooled sample and across these 13 European countries. Third, we show the sociodemographic characteristics of our sample by gender, which later will be used as controls. Finally, we run separate OLS regression models for the pooled sample (Europe as a whole) and for each country separately, adding a set of control variables that have been found to be related with life satisfaction and therefore may confound the associations under study.

Model 1 of the OLS regression model estimates the effect of our predictors of interest (parenthood and partnership) controlling for some socioeconomic variables (two age groups, being female and level of education). Model 2 adds to Model 1's controls for our protector variable (the size of one's social network). For the pooled sample, model 1 and model 2 also controls for country dummies.

Results

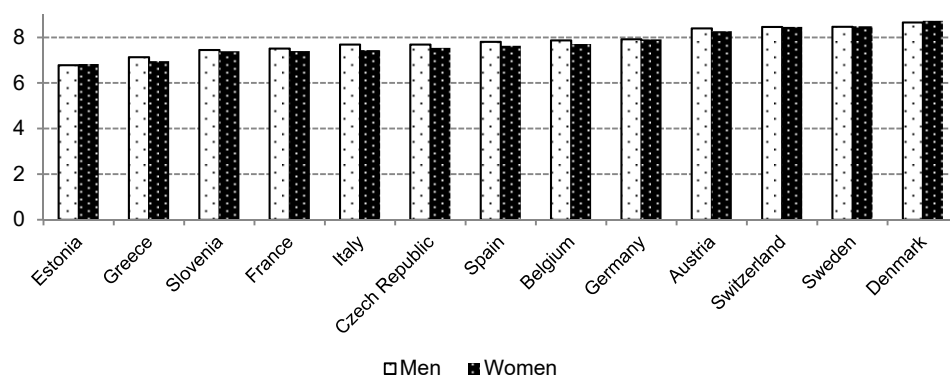
Descriptive statistics

Figure 1 shows the average life satisfaction for men and women across the 13 studied European countries. We found a large variation across countries in terms of the average levels of life satisfaction. On one side, Estonians and Greeks showed the lowest average lev-

1 <http://www.uis.unesco.org/education/pages/international-standard-classification-of-education.aspx>.

el of life satisfaction while on the other side, Nordic countries led with the highest average level. In general, the average life satisfaction was higher for men than for women in all countries. The exceptions were Switzerland, Sweden, Denmark, Germany and Estonia where men and women scored their average life satisfaction in a similar way.

Figure 1: Average life satisfaction for men and women (aged 50-85 years old) across 13 European countries

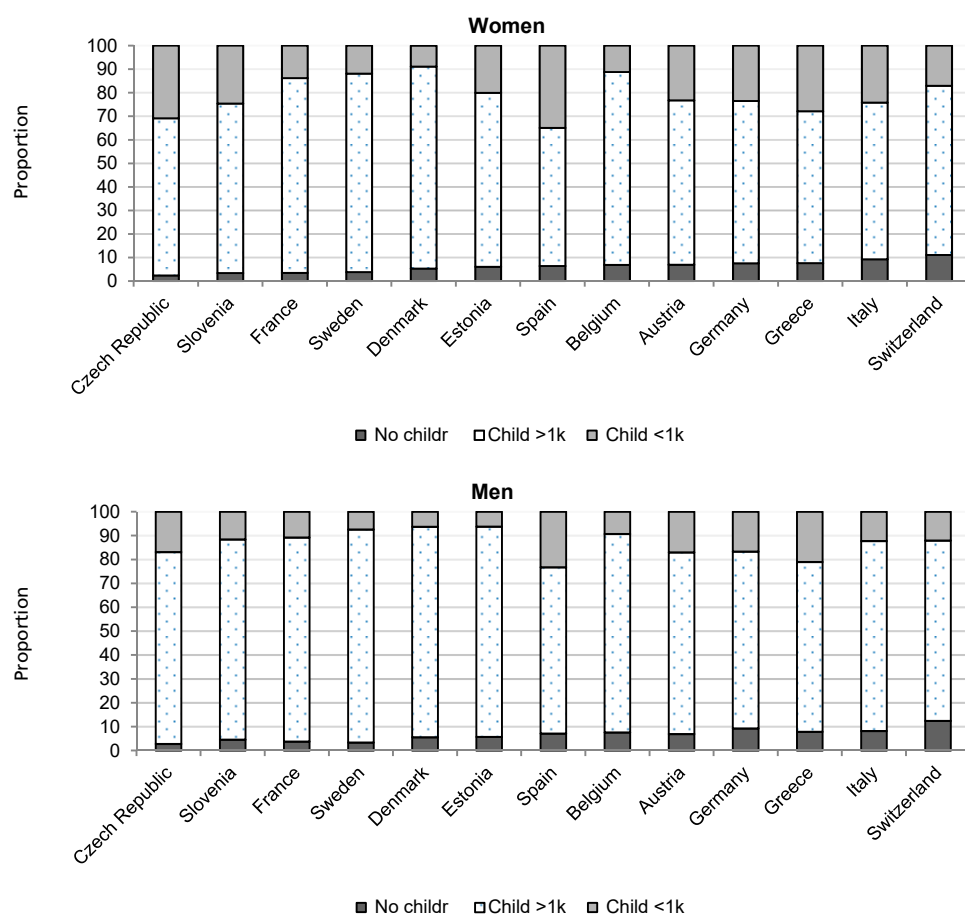


Source: SHARE (2015): wave 6.

Figure 2 presents the proportions of parenthood and partnership across Europe. We observe that parenthood status varied substantially across countries and between men and women. Czech and Swiss respondents showed the lowest and the highest proportion of childlessness for both men and women (from 2.7 to 12.4 and from 2.4 to 11.1, respectively). In general, the prevalence of childlessness was larger for men than for women, except in Sweden, Estonia, and Italy. The highest gender differences on the proportion of childlessness were found among the Germans (1.8 percentage points) while we encountered almost no gender differences in Austria, Greece, and Estonia. In the majority of the European countries the large majority of parents have their children living more than 1 Km away. Parents that have children living close by (<1Km) are more common in Southern and Eastern Europe (Spain, Greece, Italy and Czech Republic); in general, more women than men have at least one child living less than one kilometer away.

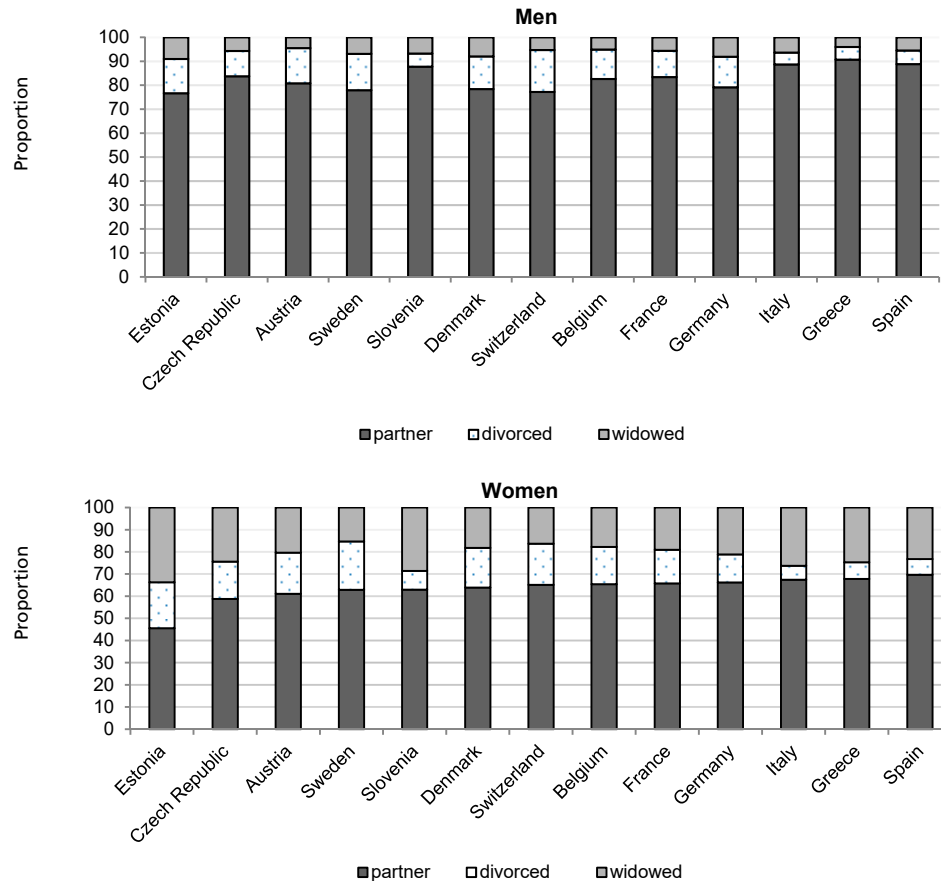
Additionally, Figure 3 presents the partnership status differences by gender. There was a clear partnership pattern as our data show a higher prevalence of women without a partner and fewer variations across countries compared to men (being widowed or divorced) at older ages (50 to 85). The composition by marital status of individuals without a partner was different for men and women: men were more likely to be divorced (60.4%) than widowed (39.6%) while women were more likely to be widowed (64.9%) than divorced (35.1%).

Figure 2: Prevalence of parenthood among men and women (aged 50-85 years old) across 13 European countries



Source: SHARE (2015); wave 6.

Figure 3: Prevalence of partnership among men and women (aged 50-85 years old) across 13 European countries



Source: SHARE (2015); wave 6.

Table 1 shows the average levels of life satisfaction by partnership and parenthood for men and for women across Europe. The overall average of life satisfaction was 7.7. Similar patterns can be observed for both men and women in terms of the average life satisfaction by partnership and parenthood. In particular, we found that the average life level of life satisfaction was always higher among those who had children (regardless of the residential proximity) than among those who were childless in Europe. This pattern was similar for being in a partnership, and in general, we found a higher average level of life satisfaction among those who currently had a partner at the time of data collection. There is no clear pattern in terms of life satisfaction according to the marital status (widowed and divorced) of those without a partner.

Table 1: Average life satisfaction by partnership and childlessness for men and women for the pooled sample and across 13 European countries. Individuals aged 50-85 years

Country	Overall Average of Life Satis- faction	Men						Women					
		Parenthood			Partnership			Parenthood			Partnership		
		Child- less	Child in <1km	Child in >1km	With partner	Di- vorced	Wid- owed	Child- less	Child in <1km	Child in >1km	With partner	Di- vorced	Wid- owed
Austria	8.33	7.96	8.46	8.43	8.48	7.95	8.12	7.87	8.20	8.34	8.45	7.96	8.01
Belgium	7.78	7.59	8.06	7.88	8.00	7.30	7.79	7.64	7.69	7.72	7.88	7.23	7.48
Czech Rep.	7.60	7.63	7.72	7.68	7.76	7.15	7.58	7.17	7.48	7.58	7.74	7.14	7.34
Denmark	8.70	8.40	8.60	8.68	8.77	8.23	8.00	8.53	8.78	8.75	8.82	8.40	8.61
Estonia	6.81	6.77	6.59	6.79	6.88	6.27	6.37	6.17	6.75	6.90	7.00	6.69	6.57
France	7.45	7.37	7.49	7.52	7.59	7.22	7.00	7.34	7.35	7.41	7.60	6.77	7.18
Germany	7.91	7.62	8.05	7.92	8.02	6.97	7.89	7.95	7.96	7.89	8.02	7.33	7.69
Greece	7.03	7.11	7.25	7.09	7.18	6.75	6.34	6.74	6.79	7.06	7.16	6.19	6.53
Italy	7.56	7.56	7.75	7.70	7.75	7.25	6.88	7.18	7.44	7.48	7.65	6.57	6.70
Slovenia	7.41	7.20	7.31	7.47	7.50	6.52	6.96	7.47	7.23	7.43	7.54	7.15	6.87
Spain	7.71	7.61	7.84	7.83	7.86	7.44	7.09	7.57	7.57	7.67	7.75	7.28	7.20
Sweden	8.48	8.04	8.27	8.50	8.55	8.15	7.93	8.19	8.50	8.50	8.58	8.22	8.29
Switzerland	8.46	8.41	8.51	8.45	8.47	8.28	8.60	8.39	8.35	8.49	8.55	8.02	8.42
Total	7.71	7.62	7.78	7.79	7.85	7.37	7.38	7.48	7.51	7.72	7.83	7.32	7.25

Source: SHARE (2015), wave 6.

Then we provide the total sample size and descriptive statistics of the control variables for the pooled sample by country and sex (Table 2). Sample sizes varied across countries, but the proportion of the sample was always higher for females than for males. Almost half of the male sample was 65 or older, while over half of the female sample was in this age group. The educational composition of our sample presented a high variation across countries and by gender. On average, women were less educated than men. Finally, the variables on social support indicate that both the mean network size and the help received from outside the household were greater for women than for men. Country differences were observed for all the control variables, but we want to highlight the variation among our explanatory variables: for instance, in some countries, the mean network size was twice that of others.

Table 2: Sample size and descriptive statistics of the control variables for the pooled sample and across 13 European countries. Individuals aged 50-85 years

	MEN					
	Sample Size	Age 65+	Education			Mean Network Size
			Low	Medium	High	
Austria	1 218	48.1	5.3	5.7	89.1	2.11
Belgium	2 207	46.7	12.3	21.3	66.4	1.54
Czech Rep.	1 800	47.9	3.7	28.7	67.6	1.92
Denmark	1 491	50.2	5.4	6.2	88.4	1.63
Estonia	1 892	46.1	2.3	19.4	78.4	1.26
France	1 405	48.7	21.9	6.8	71.3	1.64
Germany	1 848	49.0	0.8	4.6	94.6	2.00
Greece	1 913	49.4	32.9	10.2	57.0	1.78
Italy	2 141	51.4	35.8	29.1	35.2	1.21
Slovenia	1 633	43.6	7.7	13.2	79.0	1.06
Spain	2 120	45.8	43.8	26.9	29.3	2.36
Sweden	1 535	51.7	16.1	13.7	70.2	2.01
Switzerland	1 107	46.9	4.3	5.1	90.6	1.96
Total	22 310	48.9	19.9	14.9	65.2	1.78

	WOMEN					
	Sample Size	Age 65+	Education			Mean Network Size
			Low	Medium	High	
Austria	1 662	49.9	11.9	18.6	69.6	2.38
Belgium	2 757	50.5	16.3	21.3	62.4	1.70
Czech Rep.	2 695	52.9	14.5	22.2	63.4	2.00
Denmark	1 750	52.7	9.6	11.3	79.2	1.95
Estonia	2 884	55.4	3.2	18.8	78.1	1.70
France	1 816	51.3	29.2	9.8	61.0	1.85
Germany	2 097	51.3	1.5	16.7	81.8	2.25
Greece	2 434	51.4	47.1	10.2	42.7	1.88
Italy	2 530	56.1	46.3	24.4	29.3	1.39
Slovenia	2 144	49.9	9.4	29.5	61.1	1.37
Spain	2 592	49.9	53.9	22.4	23.7	2.44
Sweden	1 796	56.8	14.6	13.0	72.4	2.28
Switzerland	1 310	48.9	10.3	12.4	77.3	2.18
Total	28 467	52.2	26.0	17.6	56.4	2.0

Source: SHARE (2015), wave 6.

Linear regression analysis

Table 3 shows the OLS estimates, which indicate the effect of parenthood and partnership on the life satisfaction of individuals aged 50-plus who have ever been married, for men and women separately. In comparison to Model 1, Model 2 considers the mediator effect of the size of the social network (in both models, additional variables were included as

controls; see note in Table 3). When all countries were pooled, we observed that, as we expected, not having any children and being without a partner, both divorced and widowed, have a negative association with life satisfaction (Model 1). On the contrary, having a child living less than 1 km away improves significantly the life satisfaction, particularly for men. The negative association with life satisfaction is overall larger for divorced compared to widowed and for both men and women. According to our hypothesis, the effect of not having a partner more than doubled the effect of being childless both for men and for women in Model 1 (-0.65 and -0.47 versus -0.23 for men and -0.88 and -0.49 versus -0.09 for women). However, we didn't see a stronger effect for males compared to females regarding not having a partner.

When we added controls for the two mediator variables in the pooled Model 2, our estimates show that for men the effects the proximity of the children disappeared suggesting that children are an important source of support. However, for women with children living closer the life satisfaction decreases when controlling for the mediator variables. This result might reflect a selection effect of women who moved closer to their children when they needed support or alternatively of women who might suffer from providing care to their children.

Model 2 also shows that not having a partner after widowhood or divorce remained a significant negative factor for life satisfaction at older ages, and it could not be compensated for by alternative relatives or institutional agents. Our results clearly show that having a large network among older Europeans has a statistically significant and positive effect on life satisfaction (0.11 for men and 0.16 for women).

Interesting findings emerged when we looked at the country differences. Having no partner was significantly associated with a reduction of one's life satisfaction in most countries, and the effect was larger for divorced people than for widowed persons. When controls for network size were added (Model 2), in general the effect of being childless remained negatively associated with life satisfaction, but only statistically significant in Austria and Czech Republic for men and in Austria, Czech Republic, Estonia and Greece for women. This result indicates that childless individuals are balanced by the richness of their social networks, as those factors are positively associated with life satisfaction (Model 2). The effect of having no partner continued to reduce significantly levels of life satisfaction in most countries for men and for women both divorced and widowed, even when controlling for this protection variable. However, for women the significant effect of widowhood vanishes in some countries. In general, the network size increased significantly their levels of life satisfaction in all countries but Austria for women and in one third of the countries for men.

Table 3: Linear regression of life satisfaction on childlessness, singlehood, and social support. 13 European countries, persons aged 50-85 years old.

MEN									
Country	Model 1				Model 2				Network size
	Parenthood		Partnership		Parenthood		Partnership		
	Childless	Child in <1km	Divorced	Widowed	Childless	Child in <1km	Divorced	Widowed	
Austria	-0.53**	0.03	-0.55 ***	-0.40 *	-0.54 **	0.04	-0.56 ***	-0.41 **	-0.02
Belgium	-0.20	0.20**	-0.63 ***	-0.29 *	-0.17	0.03	-0.60 ***	-0.28 *	0.11 **
Czech Rep.	-1.22	0.18	-0.85 ***	-0.13	-1.20 *	0.15	-0.84 ***	-0.12	0.03
Denmark	-0.25	0.02	-0.61 ***	-0.83 ***	-0.23	-0.07	-0.59 ***	-0.82 ***	0.06 **
Estonia	0.18	-0.02	-0.75 ***	-0.47 **	0.22	-0.16	-0.72 ***	-0.45 **	0.11 **
France	-0.12	0.03	-0.41 **	-0.54 **	-0.07	-0.12	-0.37 *	-0.53 **	0.13 ***
Germany	-0.31	0.21 *	-0.99 ***	-0.23	-0.23	0.12	-0.91 ***	-0.18	0.13 ***
Greece	0.04	0.20 **	-0.42 *	-0.80 ***	0.10	0.02	-0.32	-0.68 ***	0.15 ***
Italy	-0.11	0.14	-0.33	-0.92 ***	-0.03	-0.12	-0.26	-0.83 ***	0.18 ***
Slovenia	0.24	-0.01	-0.88 ***	-0.47 **	0.30	-0.38 **	-0.79 **	-0.32	0.21 ***
Spain	-0.17	0.01	-0.35	-0.46 **	-0.13	-0.08	-0.30	-0.41 *	0.07
Sweden	-0.16	-0.13	-0.63 ***	-0.62 ***	-0.15	-0.21	-0.59 ***	-0.58 ***	0.08 **
Switzerland	0.06	0.10	-0.22	0.10	0.07	0.08	-0.21	0.10	0.02
Total	-0.23**	0.12 **	-0.65 ***	-0.47 ***	-0.17 *	-0.01	-0.60 ***	-0.42 ***	0.11 ***

WOMEN									
Country	Model 1				Model 2				Network size
	Parenthood		Partnership		Parenthood		Partnership		
	Childless	Child in <1km	Divorced	Widowed	Childless	Child in <1km	Divorced	Widowed	
Austria	-0.35**	-0.05	-0.71***	-0.40***	-0.32*	-0.08	-0.69***	-0.38***	0.04
Belgium	0.10	-0.08	-0.45***	-0.28***	0.13	-0.16	-0.43***	-0.26***	0.08***
Czech Rep.	-0.66**	-0.06	-0.77***	-0.42***	-0.63*	-0.17	-0.70***	-0.35***	0.13***
Denmark	-0.19	0.10	-0.48***	-0.27**	-0.13	-0.02	-0.43**	-0.24**	0.12***
Estonia	-0.65***	-0.07	-0.30***	-0.37***	-0.60***	-0.14	-0.26**	-0.32***	0.10***
France	0.05	0.03	-0.98***	-0.39***	0.14	-0.14	-0.84***	-0.31**	0.15***
Germany	0.08	0.15	-0.75***	-0.22*	0.13	0.07	-0.69***	-0.16	0.12***
Greece	-0.32**	-0.15	-1.02***	-0.54***	-0.24*	-0.22***	-0.94***	-0.46***	0.13***
Italy	-0.29	0.21*	-1.27***	-1.02***	-0.23	-0.12	-1.14***	-0.86***	0.22***
Slovenia	0.17	-0.12	-0.52**	-0.35***	0.19	-0.40***	-0.44**	-0.24**	0.16***
Spain	-0.14	-0.07	-1.09	-0.40*	-0.01	-0.20	-0.95	-0.26	0.19***
Sweden	-0.06	0.02	-0.30**	-0.24**	-0.03	-0.06	-0.23*	-0.19*	0.10***
Switzerland	-0.06	-0.11	-0.62***	-0.19	0.04	-0.20**	-0.52***	-0.14	0.13***
Total	-0.09	0.07	-0.88***	-0.49***	-0.03	-0.08	-0.78***	-0.40***	0.16***

Notes: Parents has 3 categories: 1. Being childless; 2. Having a child that lives in less than 1 km; 3. Having a child that lives in more than 1 km (reference group). No partner has 3 categories: 1. Having a partner (reference category); 2. Being divorced; 3. Being widowed. Model 1 also controls for age groups and education level. Model 2 adds additional controls to Model 1: network size. In the pooled model (Total), country dummies are also included. *** p<0.01; ** p<0.05; * p<0.1. Linear regression models were employed for the life satisfaction measure. Source: SHARE (2015), wave 6.

Discussion

This study investigated how older people's quality of life is shaped by their family ties. The aims of this paper were first to understand whether having a partner and/or having children at older ages, for men and for women, affect their life evaluation, and second, whether social networks and social supports can mediate the effect of family situation.

From a descriptive and aggregate point of view, our results show important differences on the average life satisfaction by gender across countries. Nordic countries not only showed the highest average levels of life satisfaction but also presented more gender-balanced scores while Eastern and some Southern European countries reported the lowest average scores for life satisfaction and they had higher gender differences. We also detected substantial differences across countries in the levels of childlessness and in the residential proximity of the children. Fewer variations appeared when we looked at the composition by partnership in the proportion of individuals who have a partner however differences emerged in the proportions of widows and divorced by country and especially by sex.

Our multivariate results indicate that having no partner, both divorced and widowed, has the strongest and most negative effect on life satisfaction in all countries and for both men and women. On the other hand, we found no clear effect of having no children on life satisfaction for those who had ever been married once we considered their current partnership status. These are net effects after we included several control variables (Table 3, Model 2). The results also demonstrate that in most of these European countries, having a strong network significantly increase one's life satisfaction. Based on these findings, we confirm our first hypothesis which stated that not living with a partner has a negative association with life satisfaction. We do not confirm our second hypothesis on the moderate effect of childlessness on life satisfaction as the negative effect of childlessness vanished when social support was considered; and our third hypothesis is partially confirmed as the effect of not having children was not significant either for men or women, but contrary to our expectations no clear gender differences were found for not having a partner.

Overall the dimension of one's network and currently having a partner are the key consistent factors that are associated with the degree of life satisfaction, while having children and the residential proximity of them is less important. Therefore, we find a relationship between family ties and life satisfaction but restricted to the marital status. This finding goes along with previous results (Vikström et al. 2011) and can reduce the concern on younger cohorts about the long-run implications of their following the trend to remain childless as it does not appear that they are at any greater risk of social isolation (Rowland 1998). Having a partner is a greater protector of life satisfaction at older ages than is having children.

We are aware that these results cannot be a gold standard as there are other individual factors that are likely to modify the average life satisfaction and that relate to our results. First, regarding gender differences, we should consider the general worse health of women (Crimmins/Kim/Solé-Auró 2011) and the fact that older women are less likely to get care at home as they are more likely to live alone or to lose partners. Second, social class is a factor that has a direct effect on life satisfaction and might also exacerbate or mitigate the effect of family status itself. However, the restricted number of cases per country did not allow us to explore the association between the level of education, family status, and life satisfaction.

Our future research plans include investigating how additional characteristics at macro-level settings can influence the relationship between family structures and life satisfaction in order to be able to explain the observed cross-country differences. Living in a country with higher gender equality rates (e.g. with a low gender pay gap) or in a country that offers high levels of social support for people of older ages (e.g. availability of home services versus long-term care facilities) might modify the perception of life satisfaction from a family-status point of view. So the importance of social values and of welfare systems might determine the actual effect of family life on well-being outcomes.

Finally, the contribution of our paper should be read considering that it is based on self-reported life evaluations through the SHARE survey. The estimation of subjective measures is always complex as people with higher levels of life satisfaction might be more willing to participate in the survey, especially in countries with lower participation rates. Moreover, we might not detect gender-specific patterns in terms of life satisfaction as men and women might report life satisfaction differently within and across countries.

Acknowledgements

This study belongs to the multi-country project “Care, Retirement & Wellbeing of Older People across Different Welfare Regimes” (CREW) (PCIN-2016-005; PI: Aïda Solé-Auró) founded by the Spanish Ministry of Economy and Competitiveness within the second Joint Programming Initiative “More Years Better Lives”. The authors acknowledge funding from the Spanish Ministry of Economy, Industry and Competitiveness (PCIN-2016-005) within the second Joint Programming Initiative “More Years Better Lives” and from the Spanish Ministry of Economy and Competitiveness, the Spanish Research Agency and ERDF through the project “Socio-Demographic Consequences of the Great Recession: Altered Class and Gender Relations?” (RECECON), CSO2016-80484-R (AEI/FEDER,UE).

References

- Abellán, A. & Esparza, C. (2009). Solidaridad familiar y dependencia entre las personas mayores. *In-formes Portal Mayores*, 99.
- Albertini, M. & Kohli, M. (2009). What childless older people give: Is the generational link broken? *Ageing and Society*, 29, 8, pp. 1261-1274. <https://doi.org/10.1017/S0144686X099033X>.
- Albertini, M. & Kohli, M. (2017). Childlessness and intergenerational transfers in later life. In: M. Kreyenfeld & D. Konietzka (Eds.), *Childlessness in Europe: Contexts, causes, and consequences*. Netherlands: Springer, pp. 351-368.
- Albertini, M. & Mencarini, L. (2014) Childlessness and support networks in later life: New pressures on familistic welfare state. *Journal of Family Issues* 35, 3, pp. 331-357. <https://doi.org/10.1177/0192513X12462537>.
- Arrosa, M. L. & Gandelman N. (2016). Happiness decomposition: Female optimism. *Journal of Happiness Studies*, 17, pp. 731-756. <https://doi.org/10.1007/s10902-015-9618-8>.
- Azizi, M., Mohamadian, F., Ghajaricah, M. & Direkvand-Moghadam, A. (2017). The effect of individual factors, socioeconomic and social participation on individual happiness: A cross-sectional study. *Journal of Clinical & Diagnostic Research*, 11, 6, pp. VC01-VC04. <https://doi.org/10.7860/JCDR/2017/24658.9982>.

- Blanchflower, D. G. & Oswald, A. J. (2008). Hypertension and happiness across nations. *Journal of Health Economics*, 27, pp. 218-233. <https://doi.org/10.1016/j.jealeco.2007.06.002>.
- Börsch-Supan, A., Brügiavini, A., Juerges, H., Mackenbach, J., Siegrist, J. & Weber, G. (Eds.). (2005). *Health, ageing and retirement in Europe: First results from the survey of health, ageing and retirement in Europe*. Mannheim, Germany: Mannheim Research Institute for the Economics of Aging.
- Börsch-Supan, A. & Jürges, H. (Eds.). (2005). *The survey of health, ageing and retirement in Europe: Methodology*. Mannheim, Germany: Mannheim Research Institute for the Economics of Aging.
- Clark, A. E.; Diener, E.; Georgellis, Y.; Lucas, R. E. (2008). Lags and leads in life satisfaction: A test of the baseline hypothesis. *The Economic Journal*, 118(529), pp. F222-F243. <https://doi.org/10.1111/j.1468-0297.2008.02150.x>.
- Crimmins, E. M., Kim, J. K. & Solé-Auró, A. (2011). Gender differences in health: Results from SHARE, ELSA and HRS. *The European Journal of Public Health*, 21, 1, pp. 81-91. <https://doi.org/10.1093/eurpub/ckq022>.
- Cwikel, J., Gramotnev, H. & Lee, C. (2006). Never-married childless women in Australia: Health and social circumstances in older age. *Social Science and Medicine*, 62, pp. 1991-2001. <https://doi.org/10.1016/j.socscimed.2005.09.006>.
- Devolder, D. & Merino, M. (2007). Evolución reciente de la infecundidad y la fecundidad total: España en el contexto europeo. In: Cabré Pla, A. (Ed.) *La constitución familiar en España*, Madrid: Fundación BBVA.
- Di Nallo, A. (2019) Gender gap in repartnering: The role of parental status and custodial arrangements. *Journal of Marriage and Family*, 81, 1, pp. 59-78. <https://doi.org/10.111/jomf.12527>.
- Easterlin, R. A. (2010). Happiness, growth, and the life cycle. *Europe Journal of Psychology*, 7, 2, pp. 395-398. <https://doi.org/10.5964/ejop.v7i2.136>.
- Esteve, A., Devolder, D. & Domingo, A., (2016) Childlessness in Spain: Tick tock, tick tock, tick tock! *Perspectives Demographiques*, 1, pp. 1-4.
- George, L. K. (2006). Perceived quality of life. In: Binstock, R. H., George, L. K. (Eds.), *Handbook of aging and the social sciences*, San Diego: Elsevier, pp. 320-336.
- González, M. J. & Jurado-Guerrero, T. (2006) Remaining childless in affluent economies: a comparison of France, West Germany, Italy and Spain, 1994-2001. *European Journal of Population*, 22, 4, pp. 317-352. <https://doi.org/10.1007/s10680-006-9000-y>.
- Gumà, J., Solé-Auró, A., & Arpino, B. (2019). Examining social determinants of health: the role of education, household arrangements and country groups by gender. *BMC Public Health*, 19: 699. <https://doi.org/10.1186/s12889-019-7054-0>.
- Jacobs, J. A. & Gerson, K. (2004). *The time divide. Work, Family and Gender Inequality*. Cambridge: Harvard University Press.
- Kalmijn, M. (2007). Explaining cross-national differences in marriage, cohabitation, and divorce in Europe, 1990-2000. *Population Studies* 61, 3, pp. 243-263. <https://doi.org/10.1080/00324720701571806>.
- Kiernan, K. (2004). Unmarried cohabitation and parenthood: here to stay? European perspectives. In: Smeeding, T. M., Rainwater, L. & Moynihan, D. P. (Eds.). *The future of the family*. New York: Russell Sage Foundation, pp. 66-95.
- Klaus, D., & Schnettler, S. (2016). Social networks and support for parents and childless adults in the second half of life: Convergence, divergence, or stability? *Advances in Life Course Research*, 29, pp. 95-105. <https://doi.org/10.1016/j.alcr.2015.12.004>.
- Koivumaa-Honkanen, H., Honkanen, R., Viinamäki, H., Heikkilä, K., Kaprio, J. & Koskenvuo, M. (2000). Self-reported life satisfaction and 20-year mortality in healthy Finnish adults. *American Journal of Epidemiology*, 152, 10, pp. 983-991. <https://doi.org/10.1093/aje/152.10.983>.
- Koopmans, T. A., Geleijnse, J. M., Zitman, F. G. & Giltay, E. J. (2010). Effects of happiness and all-cause mortality during 15 years of follow-up: The Arnhem elderly study. *Journal of Happiness Studies*, 11, 1, pp. 113-124. <https://doi.org/10.1007/s10902-008-9127-0>.

- Kreyenfeld, M., & Konietzka, D. (2017). Childlessness in Europe: contexts, causes, and consequences. In: Kreyenfeld, M. & Konietzka, D. (Eds.), *Childlessness in Europe: Contexts, causes, and consequences*. Netherlands: Springer, pp. 3-15.
- Mattingly, M. J. & Sayer, L.C. (2006). Under pressure: Gender differences in the relationship between free time and feeling rushed. *Journal of Marriage and Family*, 68, 1, pp. 205-221. <https://doi.org/10.1111/j.1741-3737.2006.00242.x>.
- McLanahan, S., & Adams, J. (1987). Parenthood and psychological well-being. *Annual Review of Sociology*, 5, pp. 237-257. <https://doi.org/10.1146/annurev.so.13.080187.001321>.
- Miettinen, A., Rotkirch, A., Szalma, I., Donno, A. & Tanturri, M. L. (2015) Increasing childlessness in Europe: Time trends and country differences. *Families and Societies Working papers*, 33.
- Miettinen, A., Szalma, I. (2014) Childlessness intentions and ideals in Europe. *Finnish Yearbook of Population Research*, 49, pp.31-55.
- Mojon-Azzi, S. & Sousa-Poza, A. (2011). Hypertension and life satisfaction: An analysis using data from the survey of health, ageing and retirement in Europe. *Applied Economics Letters*, 18, 2, pp. 183-187. <https://doi.org/10.1080/13504850903508291>.
- Myrskylä, M., & Margolis, R. (2014) Happiness: Before and after the kids, *Demography*, 51, 5, pp.1843-1866. <https://doi.org/10.1007/s13524-014-0321-x>.
- Papousek, I., Nauschnegg, K., Paechter, M., Lackner, H. K., Goswami, N. & Schultze, G. (2010). Trait and state positive affect and cardiovascular recovery from experimental academic stress. *Biological Psychology*, 83, pp. 108-115. <https://doi.org/10.1016/biopsycho.2009.11.008>.
- Penning, M. J. & Wu, Z. (2014). Marital status, childlessness, and social support among older Canadians. *Canadian Journal on Aging*, 33, 4, pp. 426-447. <https://doi.org/10.1017/S0714980814000385>.
- Perelli-Harris, B. & Lyons-Amos, M. (2015). Changes in partnership patterns across the life course. *Demographic Research*, 33, pp.145-178. <https://doi.org/10.4054/DemRes.2015.33.6>.
- Pinquart, M. & Sörensen, S. (2001). Gender differences in self-concept and psychological well-being in old age: A meta-analysis. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 56, pp. 195-P213. <https://doi.org/10.1093/geronb/56.4.P195>.
- Rowland, D. T. (1998). Consequences of childlessness in later life. *Australasian Journal on Ageing* 17, 1, pp. 24-28. <https://doi.org/10.1111/j.1741-6612.1998.tb00220.x>.
- Schnettler, S. & Wöhler, T. (2016). No children in later life, but more and better friends? Substitution mechanisms in the personal and support networks of parents and the childless in Germany. *Ageing and Society*, 36, 7, pp. 1339-1363. <https://doi.org/10.1017/S0144686X15000197>.
- Siahpush, M., Spittal, M., & Singh, G. K. (2008). Happiness and Life Satisfaction Prospectively Predict Self-Rated Health, Physical Health, and the Presence of Limiting, Long-Term Health Conditions. *American Journal of Health Promotion*, 23, 1, pp. 18-26. <https://doi.org/10.4278/ajhp.061023137>.
- Sobotka, T. & Toulemon, L. (2008). Overview chapter 4: Changing family and partnership behavior: Common trends and persistent diversity across Europe. *Demographic Research*, 19, 6, pp. 85-138. <https://doi.org/10.4054/DemRes.2008.19.6>.
- Solé-Auró, A. & Lozano, M. (2019). Inequalities in longevity by education level in Spain: A life satisfaction approach. *Social Indicators Research*. <https://doi.org/10.1007/s11205-018-02057-w>.
- Strine, T. W., Chapman, D. P., Balluz, L. S., Moriarty, D. G. & Mokdad, A. H. (2008). The associations between life satisfaction and health-related quality of life, chronic illness, and health behaviors among U.S. community-dwelling adults. *Journal of Community Health*, 33, 1, pp. 40-50. <https://doi.org/10.1007/s10900-007-9066-4>.
- Stutzer, A. & Frey, B. S. (2006) Does marriage make people happy, or do happy people get married? *The Journal of Socio-Economics*, 35, 2, pp. 326-347. <https://doi.org/10.1016/j.socce.2005.11.043>.
- Umberson, D., Pudrovska, T. & Reczek, C. (2010). Parenthood, childlessness, and well-being: A life course perspective. *Journal of Marriage and Family*, 72, 3, pp. 612-629. <https://doi.org/10.1111/j.1741-3737.2010.00721.x>.
- Vallin, J., Meslé, F. & Valkonen, T. (2001). *Trends in mortality and differential mortality*. Strasbourg: Council of Europe Publishing.

- van Poppel, F. & Joung, I. (2001). Long-term trends in marital status mortality differences in The Netherlands 1850-1970. *Journal of Biosocial Science* 33(2), pp. 279-303.
<https://doi.org/10.1017/S00219320001002796>.
- Veenhoven, R. (1984). Conditions of Happiness. *Springer Netherlands*, 462.
- Vikström, J., Bladh, M., Hammar, M., Marcusson, J., Wressle, E. & Sydsjö, G. (2011). The influences of childlessness on the psychological well-being and social network of the oldest old. *BMC geriatrics*, 11, 78. <https://doi.org/10.1186/1471-2318-11-78>.

Submitted: October 31, 2018

Accepted: July 5, 2019

Addresses of the authors:

Aïda Solé-Auró
Department of Political and Social Sciences
DemoSoc Research group
Universitat Pompeu Fabra
C/ Ramon Trias Fargas, 25-27
08005, Barcelona
Spain
Email: aida.sole@upf.edu

Clara Cortina
Department of Political and Social Sciences
DemoSoc Research group
Universitat Pompeu Fabra
C/ Ramon Trias Fargas, 25-27
08005, Barcelona
Spain
Email: clara.cortina@upf.edu