



WORKING PAPERS No. 6/2024 (442)

## WHY THE HAPPIEST MOMENTS IN LIFE ARE SOMETIMES SHORT? THE ROLE OF PSYCHOLOGICAL TRAITS AND SOCIO-ECONOMIC CIRCUMSTANCES

Magdalena Grabowska Agata Górny Małgorzata Kalbarczyk

WARSAW 2024



University of Warsaw Faculty of Economic Sciences

### Working Papers

# Why the Happiest Moments in Life are Sometimes Short? The Role of Psychological Traits and Socio-Economic Circumstances

Magdalena Grabowska, Agata Górny, Małgorzata Kalbarczyk University of Warsaw, Faculty of Economic Sciences Corresponding author: mm.grabowska4@uw.edu.pl

**Abstract**: This paper studies happiness' variability in the course of life and examines how psychological and socio-economic factors influence the probability that an individual is capable of identifying the happiest period in life and its length. The study is based on SHARELIFE data and uses logistic regression and Cox proportional hazards models. Results show that the personality traits significantly, but differently, influence the probability of isolating the happiest life period and its length. Importantly, both positive and negative socio-economic circumstances augment the probability of identifying the happiest period and shorten its duration. These circumstances relate to familial events and socioeconomic status in the life course. The happiest moments of life are thus concentrated around not only positive but also negative changes in life. Our results contribute to the research on changes in the levels of happiness by identifying factors shaping occurrence and duration of the most happiest moments in life.

**Keywords**: Subjective well-being, SHARELIFE, Retrospective data, Cox proportional hazards model, Big 5

**JEL codes:** I31, J10

Acknowledgments: This paper uses data from SHARE Waves 7 (10.6103/SHARE.w7.800) see Börsch-Supan et al. (2013) for methodological details.(1) The SHARE data collection has been funded by the European Commission, DG RTD through FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARELIFE: CIT4-CT-2006-028812), FP7 (SHARE-PREP: GA N°211909, SHARE-LEAP: GA N°227822, SHARE M4: GA N°261982, DASISH: GA N°283646) and Horizon 2020 (SHARE-DEV3: GA N°676536, SHARE-COHESION: GA N°870628, SERISS: GA N°654221, SSHOC: GA N°823782, SHARE-COVID19: GA N°101015924) and by DG Employment, Social Affairs & Inclusion through VS 2015/0195, VS 2016/0135, VS 2018/0285, VS 2019/0332, and VS 2020/0313. Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the U.S. National Institute on Aging (U01\_AG09740-13S2, P01\_AG005842, P01\_AG08291, P30\_AG12815, R21\_AG025169, Y1-AG-4553-01, IAG\_BSR06-11, OGHA\_04-064, HHSN271201300071C, RAG052527A) and from various national funding sources is gratefully acknowledged (see www.share-project.org).

Working Papers contain preliminary research results. Please consider this when citing the paper. Please contact the authors to give comments or to obtain revised version. Any mistakes and the views expressed herein are solely those of the authors

#### 1. Introduction

In March of 2024 the Sustainable Development Solutions Network released the 12th edition of the World Happiness Report in which Nordic countries again have found themselves in the top of the ranking followed by other developed countries (Helliwell et.al. 2024). The first such report was published as a foundational text for the United Nations High Level Meeting in 2012 that resulted in adopting the Resolution 65/309<sup>1</sup> which stated that happiness is a "fundamental human goal and universal aspiration" and it should be viewed as a measure of socio-economic development. This initiative is just an example of the increasing importance of well-being in modern societies and politics. Furthermore, some researchers have started to treat happiness as a good approximation of utility (Frey and Stutzer 2002) or a more comprehensive measure of social progress (Nikolova and Graham 2021).

It is an undeniable fact that people can be more or less happy at a given moment and research on the factors influencing the level of peoples' happiness has been already quite extensive (for example Clark and Oswald 1994, Cuñado and de Gracia 2012; Becker et al. 2019). Some studies also addressed determinants of fluctuations of the levels of happiness due to the life circumstances with the aim to evaluate how permanent these changes are (Easterlin 2006, Lucas 2007, Diener et al. 2009). However, little is known about determinants of whether and when people have their happiest period in life and how long this period lasts. On the one hand, it seems reasonable to think that the longer the periods of relatively high levels of happiness, the greater the mean well-being of the person in a lifetime perspective. On the other hand, however, if individuals identify a particular period with an increased happiness it implies existence of periods of lower happiness in their lives, which also influences (potentially decreases) the average happiness throughout the lifespan. Therefore, the determinants of the existence and the length of the happiest period in people lives deserve more attention in the studies on the lifetime well-being. This paper aims at contributing to this field.

The paper examines factors influencing the probability that people are capable of identifying the happiest period in their lives and factors influencing the length of such happiest period. We hypothesize that both stable psychological traits and individual socio-economic characteristic (e.g. education<sup>2</sup>), as well as changing socio-economic circumstances and familial

<sup>&</sup>lt;sup>1</sup> https://happinessday.org/wp-content/uploads/2015/11/UN65309.pdf, access: 10.03.2024

<sup>&</sup>lt;sup>2</sup> While the level of education can change during life it is relatively stable characteristics when the education process finishes.

events influence the probability of identifying and the length of the happiest period in life. Importantly, we argue that both positive and negative circumstances and events shorten the duration of the happiest period acting as anchors for identifying more and less happy periods in life. For example, events negatively influencing the current happiness, such as divorce (Baranowska and Matysiak 2011, Cuñado and de Gracia 2012), might help people to recognize a period of life when they were the most happy, but they are likely to have a shortening effect on the length of the happiest period if they happen during that period. Importantly, by taking into account both psychological traits and socio-economic characteristics and circumstances, we adopt an interdisciplinary approach combining the economics and psychology views on happiness.

Analyses are based mainly on the 7<sup>th</sup> wave of the Survey of Health, Ageing and Retirement in Europe (SHARE) conducted in 2017<sup>3</sup>. This particular wave was the second SHARELIFE wave, which is devoted to gathering data on respondents' life histories (including details about work history, relationships, and childbearing). The analyzed sample are individuals above the age of 50 originating from 17 European countries. Such a sample allows us to consider a wide variety of important life events as older people have greater life experience than younger individuals. First, we estimate a logistic regression to identify factors influencing the probability of identifying the happiest period in life. Second, for individuals who reported having the happiest period in their lives, we perform an Extended Cox Proportional Hazards Survival Model in order to determine what factors have influence the length of the happiest period. The structure of the paper is as follows. Section 2 briefly outlines the theoretical background and literature review regarding happiness and life satisfaction. Next, section 3 describes the data and methods used. Finally section 4 summarizes the results and is followed by section 5 which discusses the conclusions and limitations.

#### 2. Theoretical Background and Previous Findings

Subjective well-being, also called happiness, seems to be an intuitively understood concept even though it might be differently defined across cultures (Easterlin 1974). It is thought to be a major aim of human lives (Frey 2018a) and to signal how well a person's life is going (Sheldon and Lucas 2014). Although in many studies happiness and life satisfaction are often used interchangeably, they are not the same concepts. Life satisfaction is only one of the

<sup>&</sup>lt;sup>3</sup> Data that have not changed during the time between interviews were derived from the previous waves (i.e.,  $3^{th}$ ,  $4^{th}$ , and  $6^{th}$ ).

components of subjective well-being, which describes the cognitive assessment of one's happiness. Two other components are positive affect and negative affect, which describe the momentary feelings and moods, that add up to one's happiness (Diener 1984). According to Easterlin (2003a), the economic approach to happiness differs from the one typically used in psychology. While in economics change in life circumstances is thought to result in lasting shifts in happiness, psychological studies tend to refer to a "set point theory" (Easterlin 2003a, Headey 2010). According to this theory, each individual has their own level of happiness which is determined by personality traits and genetics (Lucas 2007). Thus, individuals return to their set points of happiness eventually due to hedonic adaptation process, even after major changes in their life circumstances. Nevertheless, there is an extensive literature that shows that happiness of individuals depends on a range of socio-economic factors and the process of adaptation is not complete in some cases (Lucas 2007, Diener et al. 2009).

In studies regarding subjective well-being, researchers often examine factors influencing the level of happiness and sometimes the frequency of being happy or more satisfied at the given moment. Generally speaking, many socio-economic factors are proven to significantly influence happiness, regardless of the sample characteristics or the approach used. As regards stable or relatively stable individual characteristics, women tend to be happier than men (Peiró 2006, Gerdtham and Johannesson 2001, Eren and Aşıcı 2017), however, taking age into consideration, older women are less happy than men at the same age (Easterlin 2003b). As regards education, results of the previous research suggest its positive impact on happiness (Angelini et al. 2012, Gerdtham and Johannesson 2001), However, in some studies only the effect of higher education has been observed (Cuñado and de Gracia 2012).

It is also worth noting that there might exist cultural differences influencing the way people perceive and report their happiness (Oishi et al. 2013, Muresan et al. 2020). The same relates to personality because people with a particular set of personality traits might systematically report higher levels of happiness even if they feel exactly the same as people of different personality reporting lower levels of happiness. Recently established metanalysis by Anglim et al. (2020) concludes that all the Big Five personality traits - extraversion, neuroticism, openness, agreeableness, and conscientiousness - are correlated with various aspects of well-being, although to a different extent. Neuroticism, extraversion, and conscientiousness usually show the strongest impact on one's happiness, however, the smaller effects of the remaining two are still significant (Anglim and Grant 2016, Hayes and Joseph 2003). Importantly, personality influences the way individuals experience their well-being

when facing various life events (Anglim et al. 2020). Thus, the significant part of people's subjective well-being can be explained by genetic differences between individuals although external circumstances can still change the happiness levels throughout the life course (Diener 2009).

Other individual characteristics that are important for the level of happiness might change quite dynamically over the course of life. Speaking of economic factors, many authors have confirmed that happiness and income are positively related (Gerdtham and Johannesson 2001) although this association may be curvilinear (Muresan et al. 2020). This positive relation has been found stronger for poorer countries compared to more affluent countries (Diener and Seligman 2009). At the same time, financial difficulties make it less probable that people perceive the given moment as the happiest period in life (Álvarez 2022). Some studies also addressed the association between life satisfaction and housing. Being a house owner gives more satisfaction than being a renter, which may be connected to a sense of stability that owning a property provides (Herbers and Mulder 2017). Another economic factor having a seemingly consistent effect on happiness and life satisfaction is unemployment. Unemployed people are less likely to be happy and satisfied (Gerdtham and Johannesson 2001, Cuñado and de Gracia 2012) and this effect has been found to be the strongest shortly after becoming unemployed (Clark and Oswald 1994). However, even after employment, the well-being does not recover to its former levels (Diener and Seligman 2009) indicating that unemployment at some point in life causes lasting changes in one's well-being (Lucas 2007). Thus, not surprisingly, unemployed people, especially men, have been found to have comparatively low probability of being in their happiest period in life (Álvarez 2022).

The quality of social networks also has been found to positively influence happiness (Becker et al. 2019, Eren and Aşıcı 2017) as people need social bonds and supportive relationships in order to experience and sustain well-being (Diener and Seligman 2009). Having high-quality friendships not only indicate higher levels of well-being but also decrease loneliness which is connected to the risk of depression (Kesebir and Diener 2008). The sense of community is also one reason of the relationship between religiosity or faith and happiness (Frey 2018b). Participation in religious activities has been found to increase people's happiness however this effect differs when considering different countries or denominations (Kesebir and Diener 2008).

As regards, the life course perspective, several studies document the relationship between happiness and age taking a U shape which means that there is a point of minimum happiness throughout life, usually in the middle age (Clark and Oswald 1994, Gerdtham and Johannesson 2001, Peiró and 2006), which might be puzzling taking into consideration the inevitable decline in health in older ages. However, it is important to note that social context might be the moderator of this U-shaped relationship between age and happiness. For example Helliwell et al. (2019) observed a considerable decline in well-being in the middle age for unmarried or not working persons, which they explained by the social pressure to be married and employed at the mid-life ages. At the same time, Álvarez (2022) found out that the maximum probability of being in the happiest period in life has been related to early-thirties, which supplements this picture with the life course perspective. However, studies linking these age-related results to factors directly related to the life trajectories, such as family events and health changes are still scarce. At the same time, the previous research documents relationships between these factors and the level of happiness.

Having a spouse or a partner, as well as living with a partner (Herbers and Mulder 2017), is connected to higher levels of life satisfaction (Becker et al. 2019, Angelini et al. 2012, Clark and Oswald 1994) and happiness (Cuñado and de Gracia 2012). However, some studies demonstrate that the above positive effect holds only for those who are satisfied with their relationship (Eren and Aşıcı 2017, Abramowska-Kmon and Timoszuk 2020). On the contrary, several studies have inferred a negative effect of being divorced, widowed or separated on happiness and life satisfaction (Baranowska and Matysiak 2011, Cuñado and de Gracia 2012). At the same time, divorce and death of the partner have been found to significantly decrease the probability of being in the happiest period in life with the declining effect of this factor over time (Cavapozzi et al. 2020).

According to some studies, becoming a parent has a positive effect on happiness or life satisfaction and this effect has been stronger for women (Baranowska and Matysiak 2011). Moreover, years in which a respondent's child was born have a greater probability of being included into the happiest period in life, with the effect stronger for women (Álvarez 2022). Nevertheless, this positive effect seems to diminish over time as a child becomes older as a result of higher stress and financial needs (Blanchflower and Clark 2020). There are also studies suggesting a negative effect of having children, however only for children living in the household whereas having children in general have had a positive effect on happiness (Becker et al. 2019). Overall, the so-called parental happiness gap can been observed but it tends to

decline with time as a child becomes more independent. Closing this gap in parents' older ages might be a result of the fact that parents, compared to childless individuals, can be less exposed to social disconnectedness or economic insecurity (Herbst and Ifcher 2016).

As regards health, a number of studies have demonstrated that the better health the higher reported happiness (Cuñado and de Gracia 2012, Eren and Aşıcı 2017, Clark and Oswald 1994) and life satisfaction (Herbers and Mulder 2017). This association seems to be consistently significant across different countries (Peiró 2006). Moreover, the probability of including a particular year into the happiest period in a respondent's life has been found to be lower if a respondent experienced an illness in that year (Álvarez 2022). However, with regard to young adults, only the effect of mental health, but not of physical health, has been found significant in relation to happiness (Perneger et al. 2004). This can be connected to the fact that young people are relatively unlikely to become seriously ill physically but this does not hold for mental illnesses. This observation also points to the importance of linking factors influencing happiness to the period of life in which they are observed.

Overall, the main stream of research focusses on individual factors of the current levels of happiness. Only recently, some authors have also started to consider the impact of different life events on the probability of being in the happiest period (Cavapozzi et al. 2020, Álvarez 2022) but there are not many studies yet that utilize this measure. Importantly, according to these few studies, factors positively influencing the level of happiness tend to also increase the probability of being in the happiest period of life. Hence, the happiest period in one's life might be considered as the supplementary measure of subjective well-being that addresses a lifetime perspective. Our aim is thus to take a closer look at this measure and understand better what makes people perceive some periods of their lives as more happy than others and what are factors influencing duration of the happiest periods. In the appendix of her study, Álvarez (2022) has shown additional analyses regarding socio-economic factors that influence the probability of reporting the happiest period in life. However she did not control for the individuals' personality traits, as we do. In our opinion, combining psychological and socioeconomic individual factors in the analysis of the determinants of the subjective well-being can provide for better understanding of the forces driving people's happiness. Additionally, there is a lack of studies regarding the factors that influence the length of the happiest period. In this paper we intend to fill this gap. Knowing what events and individual factors are connected with longer periods of happiness could shed a new light on understanding what makes people lastingly happy throughout their lives.

#### 3. Data and Methods

#### **3.1. Data**

Analyses are based on data from the Survey of Health, Ageing and Retirement in Europe (SHARE). This longitudinal survey gathers information about health, labor, family, and socioeconomic conditions of people aged 50 and older living in 27 European countries and Israel and their partners. Due to the large number of respondents and the same questionnaire in all countries, SHARE data allows for examining cross-country differences. Importantly, the third and seventh waves of SHARE conducted in 2008/09 and 2017, respectively, provide a retrospective module called SHARELIFE. This module includes unique information about the most important events in respondents' lives thanks to the so-called life history calendar approach. The detailed description of this methodology is provided by Börsch-Supan and Schröder (2011). Data analyzed in this paper derive mainly from waves 3 and 7, but information about the satisfaction from social networks come from waves 4 and 6<sup>4</sup>. Initially, there were 67,945 respondents from 28 countries in the sample. Then respondents with missing information regarding the key variables (i.e. happiest period) were excluded from the sample. As a consequence, the final sample contains 32,685 individuals from 17 European countries who participated either in the third, the seventh, or both of waves of SHARELIFE. The list of countries together with the number of respondents in the final sample are presented in table 1.

<sup>&</sup>lt;sup>4</sup> There is no module about social networks in waves 3 and 7. Hence, we assume that the satisfaction from social network is fairly stable throughout the time between waves 3 and 4, and between waves 6 and 7, which in each case was about 2 years.

Country	Number of respondents	Region	Share of respondents with the happiest period	Mean age when the happiest period started	Median length of the happiest period
Czech Republic	2,957	East Central Europe	58.78	25.74	26.00
Estonia	3,063	East Central Europe	50.11	24.77	20.00
Poland	1,012	East Central Europe	44.76	24.87	21.00
Denmark	2,307	Scandinavia	38.71	30.02	13.00
Sweden	2,244	Scandinavia	45.32	27.43	18.00
Croatia	1,203	South East Europe	50.96	24.27	25.00
Greece	2,111	South East Europe	45.43	28.06	24.00
Slovenia	1,674	South East Europe	28.73	25.71	15.00
Italy	2,502	South West Europe	52.52	27.72	20.00
Portugal	762	South West Europe	50.26	25.36	25.00
Spain	2,842	South West Europe	48.91	26.39	29.00
Austria	1,854	West Europe	41.59	28.19	14.00
Belgium	3,113	West Europe	46.61	26.25	16.50
France	2,135	West Europe	77.52	21.14	34.00
Germany	2,777	West Europe	40.73	27.48	14.00

Table 1. Description of the sample – shares of respondents that identified the happiest period, mean age at the beginning of the happiest period, and its median duration by country and region.

Table 1. (continued) Description of the sample – shares of respondents that identified the happiest period, mean age at the beginning of the happiest period, and its median duration by country and region.

Luxembourg	771	West Europe	39.82	24.87	16.00
Switzerland	1,855	West Europe	38.87	27.82	16.00
Overall	35,182	-	47.79	26.14	20.00

Source: own calculations using SHARELIFE waves 3 and 7, releases 7.1.0. and 7.1.1., respectively

#### 3.2. Methods of Analysis

The empirical analysis consists of two steps. First, we determine the factors that influence the likelihood of identifying the happiest period in one's life. The dependent variable is measured using an answer to a question "Looking back on your life, was there a distinct period during which you were happier than during the rest of your life?" with the possible answers of "Yes" or "No." Therefore, as an econometric approach, we utilize logistic regression. If  $h_i$ represents a dummy variable whether the respondent identifies the happiest period in their life, then the probability of being able to identify the happiest period in life can be expressed as follows.

$$Prob(h_i = 1) = \frac{exp(X_i\beta)}{1 + exp(X_i\beta)}$$
(1)

In this formula  $X_i$  denotes a vector of explanatory variables and  $\beta$  represents a vector of corresponding coefficients.

In the second step of analysis, we focus only on people that identified the happiest period in their life. These respondents were asked to specify "*When did this period of happiness start?*" and "*When did this period stop?*". The possible answer for the second of these questions was that the happiest period was still ongoing at the moment of interview.<sup>5</sup> Thus, the second dependent variable measures the length of the happiest period in years and this part of analysis is based on Extended Cox Proportional Hazards Survival Model. This model allows for

<sup>&</sup>lt;sup>5</sup> It is worth to be noted that when answering those questions, respondents see the visualization of their important life events in the form of a calendar.

examining factors influencing duration of the happiest period with the possibility of including time-varying covariates. For the chosen dependent variable, the failure designates the end of the happiest period. If the happiest period was still ongoing at the moment of the interview, the observations are censored. In general, Extended Cox model can be written using the following formula where  $\lambda_i(t)$  represents the hazard function and  $\lambda_0(t)$  represents the baseline hazard at time t (Thermeau and Grambsh 2000).

$$\lambda_i(t) = \lambda_0(t) \exp\left[\beta X_i + \beta Y_i + \gamma Y_i g(t)\right]$$
(2)

In this formula  $\beta$  represents a vector of coefficients,  $X_i$  denotes a vector of explanatory variables that meet the proportional hazards assumption, meaning they are time-independent, and  $Y_i$ denotes a vector of time-dependent variables. For these variables there is an interaction of their values with some function of time g(t). This model is a semi-parametric model which means that we do not assume any specific shape of a baseline hazard function.

#### 3.3. Independent Variables

Explanatory variables<sup>6</sup> included in the two estimated models form corresponding sets of variables as regards concepts they measure (e.g. divorce). They differ, however, in some cases with respect to the operationalization due to the different character of the model and performed analysis. The variables can be divided into three groups depending on their association with time. The list of variables, together with their detailed descriptions and their descriptive statistics, can be found in table 4 in the Appendix.

The first set of variables includes individual characteristics and personality traits that are considered to be fairly stable over time. First, we analyze respondents' gender and their religiosity<sup>7</sup> measured by the frequency of praying. Next, to account for respondents' personality traits, we use indicators from the *Big Five Personality Traits*. These are neuroticism, extraversion, openness, agreeableness, and conscientiousness<sup>8</sup> and all of them are measured on a rating scale where score 1 refers to low and 5 to high (see Bergmann et al. 2019 for details). Additionally, we incorporate regional dummies to account for some of the cultural differences

<sup>&</sup>lt;sup>6</sup> The relationship between each explanatory variable and the first dependent variable was checked using Chi2 independence test.

<sup>&</sup>lt;sup>7</sup> We assume that, especially in older ages, people tend to have fairly stable world view, including in particular attitudes towards faith and religiosity.

<sup>&</sup>lt;sup>8</sup> We treat these personality traits as constant individual's characteristics since personality traits seem to be highly stable throughout the adulthood (Anusic and Schimmack 2016).

that can influence respondents' perceptions and definitions of happiness (Easterlin 1995). Regions are assigned to countries based on their geographical locations and cultural similarities (see table 1).

The second set includes variables denoting factors that may vary over time, but they relate to the respondents' situation at the moment of the interview, and also includes selected past events forming respondents' life experience since the reported well-being is influenced both by the present life circumstances and accumulated experience (Frey and Stutzer 2002). Here we include household income per capita, years of education, labor market situation, health status, and past familial events. Familial events are defined as a set of dummies where 1 denotes experiencing a particular event in life (i.e. divorce, widowhood, having married or unmarried partner, having children or grandchildren). Additionally, we consider past difficult events that can also influence the timing of the happiest period like experiencing hunger, discrimination, or financial difficulties. With regard to age of the respondents, in the first part of analysis we use age at the moment of interview whereas in the survival analysis we use age at the start of the happiest period.

As the third set of covariates, used only in the survival analysis, we consider variables that vary over time during the happiest period. Thanks to the retrospective aspect of SHARELIFE, we observe what happened in the respondents' happiest period in life year by year and, therefore, we are able to match the particular year of the happiest period with the year of certain life events. First, we introduce a set of dummies describing the employment situation, more precisely if a respondent worked, was unemployed or retired, in each year of their happiest period. Then, we include a set of dummies for familial events that describe if a respondent was in a relationship, got married, divorced or widowed, and had a child<sup>9</sup> in a certain year. Additionally, we have a dummy that accounts for experiencing a serious illness in a particular year. Unfortunately, the SHARELIFE module does not allow us to obtain information about year by year household income, so, as the approximate level of wealth, we introduce a dummy variable for a year in which a respondent became an owner of a dwelling.

<sup>&</sup>lt;sup>9</sup> We consider both biological and adopted children.

#### 4.1. Incidence and Length of the Happiest Period – Cross-Country Comparisons

Table 1 summarizes descriptive statistics about the respondents' happiest periods by country. Almost 48% of respondents admitted that they had had a distinct period of being the happiest starting, on average, at the age of 26 with the median length of this period equaling 20 years. In the case of 38.6% of respondents who identified the happiest period in their life this period was still ongoing at the moment of the interview. Among individual countries, the greatest value in the sample is observed for France, where more than three fourths of respondents identified the happiest period in their lives and the median length of this period was 34 years. Additionally, more than a half of French respondents with the happiest period started, on average, five years earlier than for the whole sample. On the opposite end of the scale, Slovenia has the smallest share of respondents with the happiest period with the happiest period is observed in Denmark. Danish respondents also tended to start their happiest period later (at the age of 30). The share of people with an ongoing happiest period in life is also the smallest in Slovenia (less than 25%) followed by Germany (less than 30%).

These results suggest the existence of cross-country differences in perception and timing of the happiest period. By combining the mean age at the beginning of the happiest period with the median length of this period it can be suspected that usually people start their happiest period in their twenties and this period end in their mid-forties. Furthermore, taking into account that people surveyed were at least 50, the differences in the share of people who were in their happiest periods at the moment of interview might be connected to the cross-country discrepancies in well-being and quality of life of older people (Somarriba et al. 2021).



Fig. 1. Share of people with an ongoing happiest period in life by country, among those who identified such period

Source: own calculations using SHARELIFE waves 3 and 7, releases 7.1.0. and 7.1.1., respectively

#### 4.2. Who Is More Likely to Identify the Happiest Period in Life?

According to the results of the logit model (Table 2) for probability that a person identified the happiest period in their life, most covariates are statistically significant at conventional levels of significance. Females and better educated people are more likely to identify the happiest period in life which is consistent with results of Álvarez (2022) concerning the probability of being in the happiest period. At the same time, people older at the moment of the interview have lower chances to identify the happiest period, which might be somehow connected to worse cognitive skills, however this effect is rather weak. Next, less religious people have a lower probability of identifying their happiest period compared to very religious people.<sup>10</sup>

All analyzed personal traits apart from conscientiousness are statistically significant for the probability of distinguishing the happiest period in life, which means that they are not only strongly associated with levels of subjective well-being (Hayes and Joseph 2003, Diener 2009) but they also influence the way in which people evaluate their happiness in a lifespan

 $<sup>^{10}</sup>$  However, the effect is significant only at the level of p<0.1

perspective. Higher neuroticism, openness, and agreeableness increase the probability of identifying the happiest period while extraversion decreases this likelihood. Interestingly, neuroticism is thought to be more related to negative feelings whereas extraversion is more related to positive feelings (Diener 2009). Therefore, it looks like more neurotic individuals, who are more predisposed to the negative affect (Kesebir and Diener 2008), are more likely to recognize a particular moment in their lives when they felt the happiest.

Moving to the region dummies, residents of South West Europe are most likely to identify the happiest period in life from among all distinguished European regions. The smallest odds ratio has been observed for Scandinavia and South East Europe. Significance of these variables suggests that cultural differences in perceiving happiness exist which is in agreement with previous findings (Easterlin 1995, Muresan et al. 2020).

As regards socio-economic context of happiness which may fluctuate during someone's life, those with greater household income per capita at the moment of interview are more likely to identify the happiest period of their life. On the opposite, it is less probable for employed or self-employed people at the moment when compared to retired persons. Surprisingly, unemployment has no significant effect on identifying the happiest period whereas previous findings suggest that unemployed people are on average less happy (Gerdtham and Johannesson 2001, Cuñado and de Gracia 2012, Clark and Oswald 1994) so they should be more likely to recognize better times in the past. At the same time, those with higher satisfaction from social networks have lower probability of identifying the happiest period in their lives. Potentially, this is because the high-quality social network helps with sustaining relatively high levels of happiness (Becker et al. 2019) so it might be more difficult to choose one particular moment of the greatest happiness in life.

With regard to familial past events, people that had ever had either married or unmarried partner, got widowed or divorced, and had a child have greater odds for identifying the happiest period. This is in line with the observed tendency that family life influences the level of happiness (for example: Becker et al. 2019, Baranowska and Matysiak 2011, Cuñado and de Gracia 2012). However, having grandchildren appears to be not statistically significant. For all significant family related variables the effects are positive with respect to the probability of distinguishing the happiest period. The greatest effect relates to widowhood followed by the effect for divorce. At the same time, according to the previous research, divorced and widowed

individuals tend to be less happy when we look at the current level of happiness (Baranowska and Matysiak 2011, Cuñado and de Gracia 2012, Cavapozzi et al. 2020).

In line with the results relating to family events, all of the variables that describe experiencing difficult past events in life show a statistically significant positive effects on the probability of identifying the happiest period in one's life. This partially agrees with earlier results relating to the probability of being in the happiest period obtained by Álvarez (2022). It also provides for the observation that people are able to notice their happiest period more clearly if they experienced some difficult moments in the past or they are not well right now. This is also supported by the result that respondents permanently sick or disabled, and those finding their health status fair or poor, at the moment of the study, are more likely to name their happiest life period compared to people with excellent health. Meanwhile, according to earlier studies, worse health is associated with lower levels of happiness (Cuñado and de Gracia 2012, Eren and Aşıcı 2017, Clark and Oswald 1994).

Table 2.	Logistic	regression	estimates	of the	probability	of identifying	the happiest	period	in
life.									

Variable	<b>Odds Ratio</b>	Std. Err.	Z				
Socio-economic characteristics							
Female	1.28***	0.03	9.99				
Education (in years)	1.03***	0.00	8.78				
Logarithm of household income	1.06**	0.02	2.53				
Age at interview	0.99***	0.00	-4.75				
Current Job S	ituation (Retired = r	ef.)					
Employed or self-employed	0.88***	0.03	-3.58				
Unemployed	0.92	0.08	-0.93				
Permanently sick or disabled	1.24***	0.10	2.80				
Homemaker	1.04	0.05	0.79				
Other	1.14	0.10	1.50				
Health status (Excellent = ref.)							
Very good or good	1.13**	0.06	2.43				
Fair	1.21***	0.06	3.64				
Poor	1.22***	0.07	3.32				

Relationships and family						
Ever in a relationship	1.20***	0.08	2.73			
Ever got widowed	1.49***	0.05	12.17			
Ever got divorced	1.41***	0.04	11.34			
Had children	1.13***	0.05	2.66			
Had grandchildren	0.99	0.03	-0.21			
Network Satisfaction	0.98**	0.01	-2.12			
Religiosity (	Very religious = rej	f.)				
Religious	0.95*	0.03	-1.77			
Not Religious	0.93***	0.03	-2.69			
Dij	fficult events					
Experienced financial problems	2.02***	0.05	28.28			
Experienced hunger	1.15***	0.06	2.79			
Experienced discrimination	1.47***	0.07	7.69			
Individu	al characteristics					
Extraversion	0.96***	0.01	-2.90			
Neuroticism	1.17***	0.01	12.89			
Openness	1.11***	0.01	852			
Agreeableness	1.08***	0.02	5.17			
Conscientiousness	1.00	0.01	0.25			
Region dummies (South West Europe = ref.)						
Scandinavia	0.62***	0.03	-9.83			
West Europe	0.728***	0.03	-8.17			
East Central Europe	0.91**	0.04	-2.16			
South East Europe	0.59***	0.02	-12.83			
Constant	0.18***	0.05	-6.21			
Number of obser	35,182					

Table 2. (continued) Logistic regression estimates of the probability of identifying the happiest period in life.

Notes: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01, specificity is 70.20%, sensitivity is about 51.61%, the value of likelihood ratio test statistics is 2495.68 and pseudo-R-squared is about 0.05

Source: own calculations using SHARELIFE waves 3 and 7, releases 7.1.0. and 7.1.1, respectively

The results of the Extended Cox model<sup>11</sup> can be found in table 3 demonstrating that most of the analyzed factors significantly influence duration of the happiest period in life. Females have a greater hazard than males of terminating the happiest period, although the previous studies demonstrate that women tend to be happier than men (Peiró 2006, Gerdtham and Johannesson 2001, Eren and Aşıcı 2017). Education has a significant but negligible effect on the duration of the happiest period with each year of education increasing the hazard of finishing it but by only  $3\%^{12}$ . As regards, personal traits, neuroticism is insignificant with regard to the duration of the happiest period, but the effects for the remaining traits are significant. More extroverted, agreeable, and conscientious individuals are more likely to have shorter happiest periods, while for more open people the opposite is true. It is worth noting that the effect of personality traits does not change over time<sup>13</sup>. Thus, while, according to previous studies, neuroticism is the strongest predictor of well-being levels from among the Big Five Personality Traits (Anglim et al. 2020), it is not significant with regard to the length of the happiest period in life. Then, residents of two European regions - Scandinavia and South East Europe - have a greater hazard of finishing the happiest period compared to the South West Europe. This again proves importance of cultural differences in the context of subjective well-being.

Moving to the employment situation that may change over time, we observe hazard ratios greater than 1 for all statuses denoting economic activity (employment and unemployment) and also for retirement. However, the effect of shortening the happiest period is the strongest for unemployment. Therefore, not only, as earlier studies demonstrated, unemployment has a strong negative impact on the level of happiness and satisfaction with life (Clark and Oswald 1994, Cuñado and de Gracia 2012) and the probability of being in the happiest period of life (Álvarez 2022) but it also shortens the happiest period in life. On the opposite, being in a relationship, either formal or informal, decreases the hazard of finishing the happiest period by almost 40%. Therefore, it can be concluded that being in a relationship not only increases

<sup>&</sup>lt;sup>11</sup> After estimating the Cox regression with Breslow method for ties we performed a test of proportional-hazards assumption (the detailed results of this test can be found in table 5 in the Appendix). Since for 9 variables the assumption is violated, we include interactions with time for these covariates. For the Extended Cox model, the hazard ratios for covariates and their interactions with time together with corresponding standard errors are shown in table 3.

<sup>&</sup>lt;sup>12</sup> Hazard for the interaction of education with time equals approximately 1.00.

<sup>&</sup>lt;sup>13</sup> The hazard ratios for interactions with time are equal to 1 with respect to 2 decimal places.

the level of happiness, as observed in earlier studies (Becker et al. 2019, Herbers and Mulder 2017, Cuñado and de Gracia 2012, Peiró 2006), but also extends the happiest period.

Interestingly, buying a dwelling increases the hazard of the finished happiest period which is a rather counter intuitive result. The same results hold for other potentially positive life events such as marriage, childbirth, or adoption of a child. The explanation for such outcomes can be that these situations, albeit people associate them with rather positive emotions, can cause a large amount of stress at the moment they happen. Another explanation might be that, when people look back at their lives, they can match their happiest period with the occurrence of one of the above events which is supported by the fact that years in which a respondent's child was born were more likely to be included into the happiest period (Álvarez 2022). Since these events are often major and very important, respondents would be more likely to remember their dates and, because of that, the time of the end of the happiest period might be close to the time one of the above events happened.

In the same vein, negative life events also tend to shorten the happiest periods of live. Hazard ratios for events of partner's death or divorce are, however, greater than for the positive events such as marriage and childbirth. When the death of a partner happens in the first year of the happiest period the hazard of finishing this period increases about 20 times (for divorce almost 5 times). However, these negative effects decrease with time which can suggest a partial adaptation to these events (Lucas 2007). Conclusion about the strong negative effect of divorce is consistent with the results obtained by Cavapozzi et al. (2020) for the probability of being in the happiest period at the moment of divorce.

Also, those who experienced financial difficulties or discrimination at some point of their lives have a greater hazard of finishing the happiest period while the effect of hunger experience is not statistically significant. Such results may be interpreted, as for other life events, by the fact that people with difficult past experiences can more precisely differentiate the periods of happiness than those without such experiences. At the same time, experiencing a serious illness during the happiest period has a negligible effect<sup>14</sup> with respect to the duration of the happiest period in live.

<sup>&</sup>lt;sup>14</sup> Before adding the interactions with time this variable was significant with a hazard ratio of about 1.29.

Table 3. Cox regression estimates of the hazard ratio of having the finished happiest period in life including the time-varying covariates

Variable	Hazard Ratio	Std. Err.	Z			
Socio-econ	omic characteristics					
Female	1.10***	0.03	4.08			
Education (in years)	1.03***	0.00	6.71			
House	1.71***	0.10	8.82			
Age at start	1.00	0.00	1.54			
Jc	b situation					
In work	1.24***	0.03	8.05			
Retirement	1.10**	0.05	2.14			
Unemployment	1.97***	0.20	6.54			
He	ealth status					
Illness	1.11	0.09	1.21			
Relation	Relationships and family					
Relationship	0.63***	0.02	-15.53			
Wedding	1.80***	0.11	9.26			
Divorce	4.74***	0.60	12.39			
Partner's Death	20.08***	1.56	38.67			
Child	1.69***	0.07	13.24			
Dij	ficult events					
Experienced financial problems	1.17***	0.03	7.43			
Experienced hunger	1.00	0.04	0.11			
Experienced discrimination	1.12***	0.04	2.89			
Individu	al characteristics					
Extraversion	0.92***	0.02	-4.40			
Neuroticism	1.01	0.02	0.44			
Openness	1.06***	0.02	3.22			
Agreeableness	0.96***	0.01	-3.23			
Conscientiousness	0.91***	0.02	-4.56			
Region dummies (	South West Europe	= ref.)				
Scandinavia	1.12**	0.05	2.54			

West Europe	1.01	0.03	0.23
East Central Europe	0.94	0.05	-1.21
South East Europe	1.10**	0.04	2.52
Intera	actions with time		
Education	1.00***	0.00	-3.40
Divorce	1.03***	0.01	5.42
Partner's Death	1.03***	0.00	12.08
Illness	1.01**	0.00	2.51
Extraversion	1.00**	0.00	2.32
Neuroticism	1.00***	0.00	3.11
Openness	1.00**	0.00	-3.07
Conscientiousness	1.00***	0.00	3.18
East Central Europe	1.00**	0.00	-2.56
Number of resp	15,153		
Number of obse	382,119		

Table 3. (continued) Cox regression estimates of the hazard ratio of having the finished happiest period in life including the time-varying covariates

Source: own calculations using SHARELIFE waves 3 and 7, releases 7.1.0. and 7.1.1., respectively

#### 5. Discussion

The aim of this paper was to determine socio-economic and psychological individual factors that influence the probability of identifying the happiest period in life and the length of this period. Examined factors can be classified as stable (such as personality traits) and changing during the life. Importantly, the latter category encompasses various important events (such as family events) encountered by an individual or not, constituting a positive or a negative experience. Our results point to the conclusion that both stable characteristics of individuals and changing socio-economic circumstances have a significant impact on probability of distinguishing the happiest period in life and its length.

As regards fairly stable individual characteristics such as personality traits, more extroverted people are less likely to report they had the happiest period in life but if they do this period is relatively long. It is also comparatively long for more conscientious and agreeable individuals. However, only more agreeable individuals, next to open and neurotic ones more often recognize their happiest period. Then, for more open people this period tends to be comparatively short. Additionally, there are significant regional differences in assessing the happiest period which confirm the existence of cultural differences in describing happiness.

The obtained results also show that changing circumstances related to employment and income, familial events, and health status have a significant positive impact on the probability of identifying the happiest period and decrease its length. At the same time, according to the previous research, these are important determinants of the level of happiness (Frey and Stutzer, 2002, Van Praag and Ferrer-i-Carbonell 2011), although some of them impact happiness positively, while others negatively.

From among analyzed changing socio-economic factors and familial events, only employment status at the moment of the study had a rather weak and mixed influence on the probability of distinguishing the happiest period. Employed and self-employed persons were less likely to report the happiest period, while for unemployed ones, homemakers and others the effect is insignificant. This can be related to the fact that we measure employment status for the moment of the study, i.e. at the elderly ages of our respondents. The likelihood of naming the happiest period is also significantly lower for people more satisfied with their social network. This can be linked to the role of social ties in stabilizing the level of happiness in old age (Becker et al. 2019).

Interestingly, from among analyzed changing factors changing in the course of life, only being in a relationship, either formal or informal increases the duration of the happiest period in life. Meanwhile, as demonstrated in the earlier studies, this circumstance increases the level of happiness (Becker et al. 2019, Angelini et.al. 2012, Clark and Oswald 1994, Cuñado and de Gracia 2012). In the case of other factors, be it negative or positive predictors of the level of happiness according to earlier studies, the length of the happiest period shortens. Examples of negative circumstances and events, such as unemployment, widowing or divorce as shortening the happiest period agree with intuition. However, for seemingly positive events like purchasing a dwelling, getting married, or childbirth the respective result is a bit puzzling. We propose two explanations for this result. First of them relates to the potentially increased amount of stress induced by these positive events. The second source of such an outcome might be that people are likely to match the happiest period in their lives specifically and precisely with such events.

Outcome of our research that difficult events increase the likelihood that people are capable of identifying the happiest period in their life also might seem counter-intuitive. Namely, divorced, widowed and those with worse health are significantly more likely to identify their happiest period. At the same time, according to the previous research, these factors are usually connected with lower levels of happiness (Baranowska and Matysiak 2011, Cuñado and de Gracia 2012, Eren and Aşıcı 2017, Clark and Oswald 1994). Also, our results suggest that individuals who experienced some difficult event in the past like financial difficulty, hunger or discrimination also are more capable of identifying their happiest period.

Overall, the obtained results provide for the conclusion that using both economic and psychological approaches might be beneficial for understanding complex drivers of human well-being. They also turn attention to the advantages of supplementing traditional and widely studied measure of the level of happiness with the approach addressing the likelihood that a certain period in life is happier than other periods. This understudied measure allows for partly capturing the fluctuating nature of happiness, especially in the life course perspective, and does not necessarily require sophisticated longitudinal measurements. It definitely deserves furthers studies and test of its reliability and validity.

Our study has some limitations that should be mentioned. One of them is connected to the subjectivity of the analyzed measure. For example, social expectations could play a part in choosing the happiest period causing respondents to include a particular event in their happiest period only because it is socially considered as an event causing happiness. Since respondents were seeing a timetable consisting of their most relevant life events during the interview, the bias related to this exposure might increase the probability of including socially desirable events into the happiest period. Nevertheless, a part of the impact of social expectations was controlled thanks to the regional dummies. Additionally, the sample consists of older people, which is on the one hand a benefit because of their greater life experience and the possibility of facing all of the important life events. On the other hand, however, we should not forget about the natural decrease of cognitive skills, including memory, that could affect the precision of answers of older respondents.

#### References

Abramowska-Kmon, A., and Timoszuk, S. (2020). Family and social networks, subjective wellbeing and loneliness among older adults in Poland. *Studia Demograficzne*, (1 (177)), 9-36.

Álvarez, B. (2022). The Best Years of Older Europeans' Lives. Social Indicators Research, 1-34.

- Angelini, V., Cavapozzi, D., Corazzini, L., and Paccagnella, O. (2012). Age, health and life satisfaction among older Europeans. *Social indicators research*, *105*(2), 293-308.
- Anglim, J., & Grant, S. (2016). Predicting Psychological and Subjective Well-Being from Personality: Incremental Prediction from 30 Facets Over the Big 5. *Journal of Happiness Studies*, 17(1), 59–80.
- Anglim, J., Horwood, S., Smillie, L., Marrero, R. J., & Wood, J. (2020). Predicting Psychological and Subjective Well-Being From Personality: A Meta-Analysis. *Psychological Bulletin*, 146.
- Anusic, I., & Schimmack, U. (2016). Stability and change of personality traits, self-esteem, and well-being: Introducing the meta-analytic stability and change model of retest correlations. *Journal of Personality and Social Psychology*, 110(5), 766–781.
- Baranowska, A., and Matysiak, A. (2011). Does parenthood increase happiness? Evidence for Poland. *Vienna Yearbook of population research*, 307-325.
- Becker, C., Kirchmaier, I., and Trautmann, S. T. (2019). Marriage, parenthood and social network: Subjective well-being and mental health in old age. *PloS one*, *14*(7), e0218704.
- Bergmann, M., A. Scherpenzeel and A. Börsch-Supan (Eds.) (2019). SHARE Wave 7 Methodology: Panel Innovations and Life Histories Munich: Munich Center for the Economics of Aging (MEA).
- Bergmann, M., T. Kneip, G. De Luca, and A. Scherpenzeel (2019). Survey participation in the Survey of Health, Ageing and Retirement in Europe (SHARE), Wave 1-7. Based on Release 7.0.0. SHARE Working Paper Series 41-2019. Munich MEA, Max Planck Institute for Social Law and Social Policy
- Blanchflower, D.G., Clark, A.E. Children, unhappiness and family finances. *J Popul Econ* **34**, 625–653 (2021).
- Börsch-Supan, A., and Schröder, M. (2011). Retrospective data collection in the Survey of Health, Ageing and Retirement in Europe. *SHARELIFE Methodol*, 5.
- Börsch-Supan, A., Brandt, M., Hunkler, C., Kneip, T., Korbmacher, J., Malter, F., Schaan, B., Stuck, S., and Zuber, S. (2013). Data resource profile: The survey of health, ageing and retirement in Europe (SHARE). *International Journal of Epidemiology*, 42(4), 992–1001.
- Börsch-Supan, A. (2022). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 7.Release version: 8.0.0. SHARE-ERIC. Data set. DOI: 10.6103/SHARE.w7.800

- Brooks, J. S. (2013). Avoiding the limits to growth: Gross National Happiness in Bhutan as a model for sustainable development. *Sustainability*, 5(9), 3640-3664.
- Cavapozzi, D., Fiore, S., and Pasini, G. (2020). Divorce and well-being. Disentangling the role of stress and socio economic status. *The Journal of the Economics of Ageing*, *16*, 100212.
- Clark, Andrew E., and Andrew J. Oswald. "Unhappiness and unemployment." *The Economic Journal* 104.424 (1994): 648-659.
- Cuñado, J., and de Gracia, F. P. (2012). Does education affect happiness? Evidence for Spain. Social indicators research, 108(1), 185-196.
- Diener, E. (1984). Subjective well-being. Psychological bulletin, 95(3), 542.
- Diener, E., Lucas, R. E., and Scollon, C. N. (2009). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. *The science of well-being: The collected works of Ed Diener*, 103-118.
- Diener, E., and Seligman, Martin E.P. (2009). Beyond money: Toward and Economy of Well-Being. *The science of well-being: The collected works of Ed Diener*, 201-267.
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In *Nations and households in economic growth* (pp. 89-125). Academic Press.
- Easterlin, R. A. (1995). Will raising the incomes of all increase the happiness of all? *Journal of Economic Behavior and Organization*, 27(1), 35-47.
- Easterlin, R. A. (2003). Explaining happiness. *Proceedings of the National Academy of Sciences*, *100*(19), 11176-11183.
- Easterlin, R. A. (2003). Happiness of women and men in later life: Nature, determinants, and prospects. In *Advances in quality-of-life theory and research* (pp. 13-25). Springer, Dordrecht.
- Easterlin, R. A. (2006). Life cycle happiness and its sources: Intersections of psychology, economics, and demography. *Journal of economic psychology*, *27*(4), 463-482.
- Eren, K. A., and Aşıcı, A. A. (2017). The determinants of happiness in Turkey: Evidence from city-level data. *Journal of Happiness Studies*, *18*(3), 647-669.
- Frey, B., and Stutzer, A. (2002). The economics of happiness. World Economics, 3(1), 25-42.
- Frey, B. S. (2018). Happiness as a Goal of Human Beings. *Economics of happiness*. Springer, 1-4.
- Frey, B. S. (2018). Happiness and Religion. Economics of happiness. Springer, 59-62.
- Gerdtham, U. G., and Johannesson, M. (2001). The relationship between happiness, health, and socio-economic factors: results based on Swedish microdata. *The Journal of Socio-Economics*, 30(6), 553-557.

- Hayes, N., and Joseph, S. (2003). Big 5 correlates of three measures of subjective well-being. *Personality and Individual differences*, *34*(4), 723-727.
- Headey, B. (2010). The set point theory of well-being has serious flaws: on the eve of a scientific revolution?. *Social Indicators Research*, 97, 7-21.
- Helliwell, J. F., Huang, H., Norton, M. B., & Wang, S. (2019). Happiness at Different Ages: The Social Context Matters. In M. Rojas (Ed.), *The Economics of Happiness: How the Easterlin Paradox Transformed Our Understanding of Well-Being and Progress* (pp. 455–481). Springer International Publishing.
- Helliwell, J. F., Layard, R., Sachs, J. D., De Neve, J.-E., Aknin, L. B., & Wang, S. (Eds.). (2024).*World Happiness Report 2024*. University of Oxford: Wellbeing Research Centre.
- Herbers, D. J., and Mulder, C. H. (2017). Housing and subjective well-being of older adults in Europe. *Journal of Housing and the Built Environment*, *32*(3), 533-558.
- Herbst, C. M., and Ifcher, J. (2016). The increasing happiness of US parents. *Review of Economics of the Household*, *14*(3), 529-551.
- Kesebir, P., and Diener, E. (2008). In Pursuit of Happiness: Empirical Answers to Philosophical Questions. *Perspectives on Psychological Science*, *3*(2), 117–125.
- Lucas, R. E. (2007). Adaptation and the set-point model of subjective well-being: Does happiness change after major life events? *Current directions in psychological science*, *16*(2), 75-79.
- E., R., Diener, E. (2009). Personality and Subjective Well-Being. In: Diener, E. (eds) *The Science* of Well-Being. Social Indicators Research Series, vol 37. Springer, Dordrecht.
- Muresan, G. M., Ciumas, C., and Achim, M. V. (2020). Can money buy happiness? Evidence for European countries. *Applied Research in Quality of Life*, *15*(4), 953-970.
- Nikolova, M., and Graham, C. (2021). The economics of happiness. In *Handbook of labor, human resources and population economics* (pp. 1-33). Cham: Springer International Publishing.
- Oishi, S., Graham, J., Kesebir, S., and Galinha, I. C. (2013). Concepts of happiness across time and cultures. *Personality and social psychology bulletin*, *39*(5), 559-577.
- Peiró, A. (2006). Happiness, satisfaction and socio-economic conditions: Some international evidence. *The Journal of Socio-Economics*, *35*(2), 348-365.
- Perneger, T. V., Hudelson, P. M., and Bovier, P. A. (2004). Health and happiness in young Swiss adults. *Quality of Life Research*, 13(1), 171-178.
- Sheldon, K. M., and Lucas, R. E. (2014). Is It Possible to Become a Permanently Happier Person?: An Overview of the Issues and the Book. *Stability of happiness*, 1-7.

- Shrira, A., Shmotkin, D., and Litwin, H. (2012). Potentially traumatic events at different points in the life span and mental health: findings from SHARE-Israel. *American Journal of Orthopsychiatry*, 82(2), 251.
- Somarriba Arechavala, N., Zarzosa Espina, P., Gómez-Costilla, P. (2021). Quality of Later Life in Europe. In: Rojo-Pérez, F., Fernández-Mayoralas, G. (eds) Handbook of Active Ageing and Quality of Life. International Handbooks of Quality-of-Life. Springer, Cham.
- Stevenson, B., and Wolfers, J. (2008). *Economic growth and subjective well-being: Reassessing the Easterlin paradox* (No. w14282). National Bureau of Economic Research.
- Therneau, T. M., and Grambsch, P. M. (2000). The cox model. In *Modeling survival data: extending the Cox model* (pp. 39-77). Springer, New York, NY.
- Van Praag, B. M., and Ferrer-i-Carbonell, A. (2011). *Happiness economics: A new road to measuring and comparing happiness*. Now Publishers Inc.
- Veenhoven, R., and Vergunst, F. (2014). The Easterlin illusion: economic growth does go with greater happiness. *International Journal of Happiness and Development*, *1*(4), 311-343.

#### Appendix

Table 4. Explanatory variables and their descriptive statistics (means for the continuous variables and shares of respondents for binary and categorical variables)

Variable	Description	Mean (st.dev.) / Percentage	
v al lable	Description	Logit	Cox
Female	Dummy, 1 if a female	59.04	64.41
Education	Years of education	11.01 (4.40)	11.13 (4.37)
Household income	Household income per capita at the moment of interview (euro)	14,999.19 (18,209.08)	-
House	Dummy, 1 if became owner of a house or apartment in this year	-	32.19
Age at interview	Age at the moment of interview	69.95 ( 9.27)	-
Age at start	Age at the beginning of the happiest period	-	26.15 (13.00)
Current Job Situation	'		
Retired		67.08	-
Employed or self-employed		19.30	
Unemployed	Categorical variable with 5 levels	1.70	
Permanently sick or disabled	at the moment of interview	2.35	
Homemaker		7.92	
Other		1.65	
In work	Dummy, 1 if respondent worked in this year	-	83.96
Retirement	Dummy, 1 if respondent was retired in this year	-	32.27
Unemployment	Dummy, 1 if respondent was unemployed in this year	-	3.61
Health status			
Excellent		5.88	
Very good or good	Categorical variable with 4 levels	53.61	Cox 64.41 11.13 (4.37) - 32.19 - 26.15 (13.00) - 83.96 32.27 3.61 -
Fair	moment of interview	29.92	-
Poor		10.59	

Illness	Dummy, 1 if respondent was seriously ill or disabled in this year	-	10.31
Ever had partner	Dummy, 1 if has ever had either married or unmarried partner	96.25	-
Relationship	Dummy, 1 if was in a formal or an informal relationship	-	87.98
Wedding	Dummy, 1 if got married in this year	-	55.74
Ever got widowed	Dummy, 1 if got widowed	16.75	-
Death of a partner	Dummy, 1 if got widowed in this year	-	11.56
Ever got divorced	Dummy, 1 if got divorced	17.52	-
Divorce	Dummy, 1 if got divorced in this year	-	6.84
Had children	Dummy, 1 if had children	90.82	-
Child Dummy, 1 if respondent's child was born or adopted		-	68.05
Had grandchildren	Dummy, 1 if had grandchildren	69.79	-
Network Satisfaction	Satisfaction of the network where 0 means completely dissatisfied and 10 means completely satisfied	9.00 (1.20)	-
Religiosity			
Very religious	Categorical variable with 3 levels,	36.36	
Religious	very religious means a person	22.50	
Not Religious	week, religious means a person prays at most once a week, and not religious a person that never prays	41.14	-
Experienced financial problems	Have had a distinct period of financial hardship	31.36	39.90
Experienced hunger	Have had a distinct period when suffering of hunger	5.74	6.86

Table 4. (continued) Explanatory variables and their descriptive statistics (means for the continuous variables and shares of respondents for binary and categorical variables)

Experienced discrimination	Have been a victim of discrimination or persecution	5.50	7.07
Extraversion	Extraversion score where the greater the score is, the more extravert the person is	3.50 (0.94)	3.49 (0.94)
Neuroticism	Neuroticism score where the greater the score is, the more neurotic the person is	2.64 (1.02)	2.73 (1.04)
Openness	Openness score where the greater the score, is the more open the person is	3.31 (0.97)	3.38 (0.98)
Agreeableness	Agreeableness score where the greater the score, the more aggregable the person is	3.72 (0.81)	3.72 (0.81)
Conscientiousness	Conscientiousness score where the greater the score, the more conscious the person is	4.11 (0.79)	4.12 (0.79)

Table 4. (continued) Explanatory variables and their descriptive statistics (means for the continuous variables and shares of respondents for binary and categorical variables)

Notes: for variables that describe respondent's situation in a particular year the given percentage is a share of respondents who reported this event in their happiest period.

Source: own calculations using SHARELIFE waves 3 and 7, releases 7.1.0. and 7.1.1., respectively

Variable	rho	chi2	df	Prob>chi2
Female	-0.01	0.26	1	0.61
Education	-0.03	9.80	1	0.00
House	0.01	0.73	1	0.39
Age at start	-0.01	0.26	1	0.61
In work	-0.02	3.05	1	0.08
Retirement	0.01	0.97	1	0.32
Unemployment	0.00	0.03	1	0.87
Illness	0.02	5.28	1	0.02
Relationship	0.00	0.00	1	0.98
Wedding	0.02	2.33	1	0.13
Divorce	0.04	18.31	1	0.00
Partner's Death	0.15	183.46	1	0.00
Child	0.01	0.77	1	0.38
Experienced financial problems	0.00	0.14	1	0.71
Experienced hunger	0.00	0.00	1	0.94
Experienced discrimination	-0.01	0.94	1	0.33
Extraversion	0.02	4.30	1	0.04
Neuroticism	0.03	7.58	1	0.01
Openness	-0.03	7.68	1	0.01
Agreeableness	0.00	0.23	1	0.63
Conscientiousness	0.03	7.79	1	0.01
Scandinavia	-0.01	1.91	1	0.17
West Europe	-0.01	0.24	1	0.63
East Central Europe	-0.02	4.75	1	0.03
South East Europe	0.01	1.24	1	0.27
South West Europe	•	•	1	
Global test		316.82	25	0.00

Table 5. Detailed results of test of proportional-hazards assumption based on Schoenfeld residuals.

Source: own calculations using SHARELIFE waves 3 and 7, releases 7.1.0. and 7.1.1., respectively



University of Warsaw Faculty of Economic Sciences 44/50 Długa St. 00-241 Warsaw www.wne.uw.edu.pl