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Life satisfaction of older people in six European countries: findings from the European Study on Adult Well-Being

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Abstract The European Study on Adult Well-being (ESAW), funded by the European Union, was conducted during 2002 and 2003 in Austria, Italy, Luxembourg, The Netherlands, United Kingdom and Sweden. The aim of the interdisciplinary study was the conceptual clarification and the identification of factors contributing to life satisfaction for older people. Five key components were included in the study: (1) physical health and functional status; (2) self-resources; (3) material security; (4) social support resources; and (5) life activity. A representative population of adults aged 50–90 years living independently (not institutionalised) was selected in each participating country, and the actual sample size came very close to the target of 2,000, ranging from 1,854 to 2,417. The total European sample comprised 12,478 respondents. In this paper, mean differences in general and domain-specific life satisfaction between the six countries including age groups and gender are reported and discussed with respect to contextual national characteristics. In general the findings

showed a high level in all chosen indicators of life satisfaction across the six countries. National differences depended on the domain under consideration, but the results showed in general that The Netherlands, United Kingdom, Luxembourg and Austria had higher values of life satisfaction compared to Sweden and Italy.

Keywords Gerontology · Successful ageing · Life satisfaction · Cross-national differences

Introduction

Europe has a unique position in the ageing process of the world population. The demographic transformation manifested itself in this region first and, currently, Europe has the highest proportion of older people in the world (although Japan has the second most aged population after Italy). Italy was one of the first countries in the world where older people outnumber the young. The likelihood is that Europe will retain this leading position for at least the next 50 years (United Nations 2001). It goes without saying that the implications associated with this development will concern nearly every area of social and individual life, the area of most concern perhaps being the costs associated with the financing of an ageing society (see Börsch-Supan and Miegel 2001). Implications and consequences of an over-ageing society for individual and social life have been taken up in social, medical, life and economic sciences and are analysed here under various perspectives and emphases.

In the last decades, both inter- and intra-individual differences in various criteria of ageing have been elaborated in empirical research and in a series of explanatory theoretical models (e.g. Baltes and Baltes 1990; Brandtstädter and Greve 1994; Rowe and Kahn 1998; Wahl and Heyl 2004). The common observation underlying these endeavours is perhaps best described by Rowe and Kahn (1998) who stated that ageing is a universal but not a uniform process. This statement can

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be further expanded with respect to the following points: (1) ageing represents a developmental phenomenon that must be reconstructed within the context of life-long development. (2) Ageing takes place in specific socio-ecological contexts, and the study of ageing requires the differentiation of levels of description (e.g. individual, micro-, meso- and macro-analytic domains according to Bronfenbrenner 1979; see also Wahl et al. 2004). (3) Ageing needs to be described according to multiple dimensions and from several scientific perspectives and, depending on the perspective and dimension under consideration, differential descriptive profiles and explanations of ageing may emerge. (4) The multi-dimensionality of ageing indicates the relativity of success criteria that may be applied in its evaluation, since losses on one dimension may be compensated for by gains on another dimension (see Baltes 1995; Baltes and Baltes 1990). Therefore, an evaluation of whether the ageing process is successful must always be explained with respect to the chosen criteria and their interrelationships.

In general, three not mutually exclusive approaches may be chosen to describe indicators of ageing. First, one may use objective criteria (e.g. the incidence and prevalence of medically diagnosed diseases and illnesses; income). Second, one may rely on standards of healthy living derived from predominant theories and models of physical and psychosocial functioning in old age. Third, one may choose subjective ratings on these three dimensions as the defining criteria of overall functioning. All three approaches are used and all of them have their shortcomings. Objective indicators may, for instance, lack a correspondence with subjective ratings. This is especially observed in old age when comparing the incidence of diseases with subjective ratings of health (e.g. Pinquart 2001). Expert ratings may also miss this correspondence and, furthermore, they may contain the risk of defining normative criteria that may not apply to all individuals (see Kahn 2002; Strawbridge et al. 2002). This may explain why there is a pronounced tendency in gerontological research to use subjective ratings to evaluate the life situation in old age. Here, life satisfaction is one of the crucial dimensions.

Life satisfaction in old age

Core pieces of the early definition of 'successful aging', as proposed by Havighurst and Albrecht (1953), have been 'adding life to the years' and 'getting satisfaction from life'. Starting from this, life satisfaction was and still is one of the most prominent criteria for describing the ageing process, even at the cost of neglecting other constructs (see Westerhof et al. 2001). The concept has been described as the cognitive component of subjective well-being, implying a judgemental process in which the present life situation (the 'is') is compared and weighted with respect to a desired life situation (the 'ought'; see Diener et al. 1999; Ferring and Filipp 1997). Interestingly, little difference has been observed in

cross-sectional comparisons of life satisfaction ratings between younger and older age groups. The overall pattern can be described as inconsistent and slightly in favour of results indicating a comparable evaluation of life satisfaction across different age groups (cf. Pinquart 1998).

Nevertheless these results do not indicate a context-independent rating of life satisfaction. When it comes to cross-national comparisons, a strong connection between living conditions and their subjective evaluation, indicating the *liveability* of societies, can be observed (see Veenhoven 2000). This is convincingly described by higher life satisfaction in those nations that provide the most material comfort, social equality, political freedom and access to knowledge, accounting for 77% of variance in life satisfaction (Veenhoven 1997).

In the field of gerontology non-existing differences or inconsistent findings in age-group comparisons of life satisfaction have been described as a 'satisfaction paradox', which indicates the use of adaptive processes in old age that allow a regulation of subjective well-being (see Filipp and Ferring 1992; Staudinger 2000). Life satisfaction in old age may thus be dynamically shaped by reducing discrepancies between the 'is' and the 'ought'. This may be done by changing the evaluation of the present life situation by using new evaluation criteria or by changing the evaluation of the desired life situation by changing one's aspirations and expectations (cf. Brandtstädter and Greve 1994; Ferring and Filipp 1997). In this line of reasoning, one has to ask whether life satisfaction in old age has to be conceptualised as an inter-individual difference variable that mainly reflects differences in the use of individual regulative strategies, or whether it represents a context sensitive judgement indicating differences across different life situations.

The differentiation between domain-specific and general life satisfaction helps to further clarify this question since the judgement processes underlying these ratings may be quite different. In their judgement model of subjective well-being, Schwarz and Strack (1999) reported that domain-specific ratings of life satisfaction are data-driven judgements since reliable information is quite easily accessible for the domain under consideration (e.g. satisfaction with material resources). On the other hand, the estimation of general life satisfaction represents a quite complex cognitive task and may be described as a top-down process reflecting the use of stable individual judgment strategies representing a trait (see also Veenhoven 1994). Individual judgements of general life satisfaction may thus be guided by the use of perceptual and evaluative styles which help to cope with the specific tasks and demands of the present life situation, while domain-specific judgements reflect the data-driven assessment of satisfaction with the present life domain under consideration. Such a conception does not exclude external factors in their impact on ageing since each individual is embedded in a biological and a cultural context, whose interaction exerts an influence on individual development (see Baltes et al. 1980). Life

satisfaction represents, in this contextual view, a psychological phenomenon which results from the interaction between internal and external factors (i.e. biology, culture) on ageing and its subjective perception.

Life satisfaction in the EU

While the discussion of life satisfaction on the level of the ageing individual represents a domain of psychological reasoning, cross-national differences in life evaluation are described and explained in the context of sociological theory and research. Stable national differences in indicators of subjective well-being are explained here as an expression of relatively stable social and cultural characteristics of the societies under consideration (see Inglehart 1990). Economic wealth, individualism vs. collectivism, and normative beliefs in given societies have been identified as correlates of stable national differences in indicators of subjective well-being, although the causal pathways, especially underlying the relationship between national wealth and subjective well-being, are not yet well understood (see Diener and Suh 1999). Parallel to the trait-like conception of general life satisfaction, differences on the national level may be conceptualised in the same way as the expression of stable national differences in economic conditions and socio-cultural characteristics (see Veenhoven 1994).

Delhey (2004) has recently published findings from a survey on life satisfaction in the 25 countries of the European Community following the 2004 enlargement plus the three countries which are candidates for membership (Bulgaria, Romania and Turkey). Using a harmonised Eurobarometer data set, the single item “*Please tell me whether you are very satisfied, fairly satisfied, not very satisfied or not at all satisfied with your life in general*” assessed general life satisfaction. The results showed no pronounced differences between the older 15 EU countries with respect to this rating. In the majority of member states 90% or more of the population stated that they were satisfied with life, and even in the two least satisfied countries, Portugal and Greece, around 70% of the people still reported satisfaction. The Danes felt most satisfied (97% satisfied, 69% very satisfied), closely followed by the Dutch, the Luxembourgers and the Swedes.

Domain-specific satisfaction was assessed with respect to ten domains of living (i.e. home, family life, neighbourhood, health, social life, personal safety, employment, and income), and respondents rated whether they were very satisfied, fairly satisfied, not very satisfied or not at all satisfied with each of the domains. Here, a similar ranking of life domains occurred among the 15 EU countries, indicating a stable pattern of generally content populations. The Danes, Austrians, Dutch and Luxembourgers were on the whole the most satisfied, joined occasionally by the Irish and the Swedes. At the lower end, the Greeks, Portuguese and Italians were the least satisfied; the Germans, Spaniards,

Belgians and British, depending on the area of life, at times accompanied these.

When it came to the prediction of general life satisfaction by domain-specific ratings, the following picture emerged. Satisfaction with financial situation was in none of the EU member states a strong predictor of life satisfaction, and in Italy and Sweden it did not contribute at all to the overall appreciation of life. In the other EU countries income had only a small effect. The strongest predictors of general life satisfaction in all countries were satisfaction with family life, social life and health. Comparable profiles resulted in a ranking of life domains according to their importance even in countries which were very different, both culturally and institutionally (see Delhey 2004). Overall these findings indicate that both general and domain-specific life satisfaction in the EU member states is comparatively high, and that differences between the countries are not pronounced.

In the following, domain-specific and general life satisfaction in Austria, Italy, Luxembourg, The Netherlands, the United Kingdom and Sweden will be inspected. The six countries differ considerably with respect to compositional and contextual factors (see Shaw et al. 2002), and age structure, indicators of the economic situation and the structure of the national welfare system are used to describe this subsample of the EU15. With respect to age structure, Italy is the oldest European nation, followed by Sweden. Life expectancy is above 79 years in both countries (Italy 79.4, Sweden 79.97), coupled at the same time in Italy with one of lowest fertility rates in Europe (Italy 1.26, Sweden 1.54). The Netherlands (78.74), Austria (78.17), UK (78.16) and Luxembourg (77.16) show life expectancies below 79 years, with comparatively high fertility rates in The Netherlands (1.7), Luxembourg (1.66), and the UK (1.65). Austria (1.41) has a fertility rate lower than all the other countries but still higher than Italy.

Two variables directly linked to the age structure and the welfare systems describe the economic situation in these countries: the average age at retirement from the labour market and the unemployment rate. The first variable is over 60 years in Sweden (63.2), the UK (62.3) and The Netherlands (62.2), and under the age of 60 years in Italy (59.9), Austria (59.3) and Luxembourg (59.3; Eurostat 2004).

The distribution of the standardised unemployment rate provided by the OECD (http://www.oecd.org/document/35/0:2340,en_2649_201185_32617955_1_1_1_1:00.html) shows that Italy (8.5) and Sweden (6.3) have the highest unemployment rates in comparison with the other participating countries, followed by the UK (5.2), The Netherlands (4.7), Austria (4.2), and Luxembourg (4.0). Population ageing, coupled with low retirement age and low average age of exit from the labour market, obviously presents a challenge to the economic system. The associated reduction in the labour force also has consequences for national welfare systems, which rely to a great extent on taxes produced by the active labour

force to provide services in the social and health domain (see Scharf et al. 2003).

This is clearly demonstrated in the case of Sweden, which has one of the oldest European welfare systems, and which has been described as the most generous system in the world. Sweden has experienced severe drawbacks in recent decades due to economic recession. The UK has already carried out welfare reforms due to the economic crisis of 1976 and in the following years of Conservative government, leading to significant changes in public welfare (see Glennerster and Hills 1998). In a comparison of these crude indicators, Italy, Sweden and the UK are thus 'at risk' countries concerning their future demographic and economic development compared with Austria, The Netherlands and Luxembourg. The comparison of the 25 EU member states showed that four of the six countries obtained very high ratings in domain-specific satisfaction—i.e. Austria (rank 2), Luxembourg (3), The Netherlands (4) and Sweden (6)—whereas the UK (13) and Italy (16) had comparatively lower rankings. This pattern was in part reflected in the rankings obtained for general life satisfaction: The Netherlands (2), Luxembourg (3), Sweden (4), and Austria (6) obtained a ranking within the first six positions; UK (8) 'improved', and Italy (16) had the same comparatively lower position. Interestingly, in all six countries, 'health', 'income' and 'family' were named as the three most important self-reported factors contributing to quality of life, health always holding the first rank.

As a limitation of these results and in line with Delhey (2004), one may note that these were produced on the basis of single-item ratings which cannot be controlled for measurement error. Also missing is a qualification of findings for age and gender, although this was not an aim of the study. Attempts to answer this question are presented below, where indicators of life satisfaction for four domains, namely 'material security', 'health and functional status', 'social relationships' and 'life activities' as well as an index of general life satisfaction are presented; national as well as age and gender differences in these indicators are described. This allows for estimates of the relative and unique contribution of socio-cultural factors covered by the national samples as well as the effect of the two biological variables. Results therefore allow a weighting of these factors according to their importance for life

satisfaction and following from this a discussion of their relative explanatory power.

Methods

The European Study of Adult Well-being (ESAW), funded by the EU, was conducted during 2002–2003 in Austria, Italy, Luxembourg, The Netherlands, United Kingdom and Sweden. A Principal Investigator and a team of researchers conducted the work in each participating country. The ESAW research design had three phases. Phase 1 consisted of questionnaire development and translation, interviewer recruitment and training and sample selection. Phase 2 comprised data collection and data preparation. Phase 3 was concerned with data analysis and publication of results.

Sample

A representative population of adults aged 50–90 years, living independently (not institutionalised), was selected by each of the country teams. Samples included both rural and urban areas. Because of the differences in the settlement patterns and population density, the definition of rural was left to each participating country to decide according to the relevant definition applied at a national level. A target sample of 2,000 was set in each country. Although all countries experienced higher than expected refusal rates, the actual sample sizes came very close to the target, ranging from 1,854 to 2,417. The total European sample size was 12,478 (see Table 1). Reflecting the age stratification of the general population, the relative weight of the 10-year age groups decreased from younger to older. In all ESAW countries, the majority (54%) of older people were women, reflecting their greater longevity in developed countries. This pattern was slightly more accentuated in the Austrian sample (where women made up 59% of the total), while in The Netherlands and Sweden the proportion of women was below the average.

Measures

Subjects were interviewed with respect to five domains of living: (1) physical health and functional status; (2) self-

Table 1 ESAW sample sizes by country and type of locality (rural/urban)

Type of locality	NL ^a	L	I	A	UK	S	Total
Urban	1,144 59.2%	1,541 72.4%	1,760 87.2%	1,262 59.8%	881 47.5%	2,201 92.2%	8,789 70.7%
Rural	790 40.8%	586 27.6%	258 12.8%	849 40.2%	972 52.5%	186 7.8%	3641 29.3%
Total	1,934 100.0%	2,127 100.0%	2,018 100.0%	2,111 100.0%	1,853 100.0%	2,387 100.0%	12,430 100.0%

^aOfficial European abbreviations are used: *NL* The Netherlands; *L* Luxembourg; *I* Italy; *A* Austria; *UK* United Kingdom; *S* Sweden

resources; (3) material security; (4) social support resources; and (5) life activity. In each of these domains, subjective evaluations of the present life situation were recorded with respect to several indicators. Each domain was covered by pre-existing Anglo-American instruments which had been translated in the national languages and confirmed with respect to reliability and validity (for further information, see <http://www.bangor.ac.uk/esaw/>). The domain of self-resources covered psychological constructs such as self-esteem and personal control and thus overlaps conceptually with the construct of life satisfaction; therefore, this domain is not considered here.

Social resources

Respondents were asked to rate their satisfaction with family and friendship relations on a five-point scale with regard to the question: “*How satisfied are you with your family/friendship relationships?*” The scale included the following categories: ‘highly dissatisfied’ ‘dissatisfied’, ‘undecided or neither’, ‘satisfied’, ‘highly satisfied’.

Life activities

Life activities were described by productive and leisure time activities, and two direct measures of domain-specific satisfaction were obtained for these, by asking “*How would you rate your overall satisfaction with your productive/leisure time activity involvement?*” The number of productive activities had already been assessed for the domains of volunteer activities, home maintenance and housekeeping, paid work, and assistance to others. Leisure time activities had been recorded with respect to outdoor activities, sports, hobbies and indoor activities, cultural activities and entertainment, home-centred and social activities.

Physical health and functional status

A subjective rating of health was obtained by asking “*How would you rate your overall health at the present time?*”, with responses on a four-point scale ranging from ‘excellent’, ‘good’, ‘fair’ and ‘poor’. This rating clearly conveys a difference or convergence between subjective standards and the present condition of health and is used here as an indicator of domain-specific satisfaction. Furthermore, respondents estimated the discrepancy between the presently available medical care and their needs by answering (yes/no) the question: “*Do you feel that you need medical care or treatment beyond what you are receiving at this time?*”. This rating also compared the ‘is’ and the ‘ought’ and was used as a further indicator of domain-specific satisfaction.

Material security

Here also, two indicators were used. First, a social comparison rating elicited by the question: “*As compared to other people your age, please tell me how well you think you are now doing financially?*”, which had to be answered on a three-point scale (‘better’, ‘about the same’, ‘worse’), indicating an upward, lateral or downward comparison. In addition, subjects were asked: “*How well do you feel your needs are met by the financial resources you have (e.g. money)?*” Respondents had to estimate the subjective adequacy of financial resources on a three-point scale (‘very well’, ‘fairly well’, ‘poorly’). For both of these items, ‘dummy’ variables were constructed. The percentage of respondents giving a downward social comparison were compared in terms of those giving a less favourable evaluation of their financial resources.

General life satisfaction

The ‘life satisfaction index’ of Neugarten et al. (1962) was used as a measure of general life satisfaction. This comprises 13 questions (e.g. “*As I grow older, things seem better than I thought they would be*”) to be answered on three categories: ‘agree’ (2) ‘disagree’ (0), and ‘not sure’ (1). A composite index was constructed by adding the item scores. (Two items, nos. 2 and 7, were excluded because of unclear translation resulting in differing percentages in the agreement/disagreement rates in the Italian sample.) Internal consistency of this score was $\alpha = 0.76$, and split-half reliability values were $r_{tt} = 0.73$ according to Spearman and Guttman, respectively.

Results

Domain-specific and general life satisfaction across countries and age groups

Here, the results of three-factorial multivariate analyses of variance (MANOVA) will be presented in which the dependent variables were the respective indicators in each domain and the independent variables were country, gender and age group (four categories: 50–59; 60–69; 70–79; 80–90 years). It should be noted that the probability of obtaining significant results is naturally quite high with a sample size of 12,478 subjects, even if the observed mean differences may be negligible (Cohen 1992). Furthermore, the observed a posteriori power of these findings is comparatively high, being a direct function of the sample size. In order not to overestimate a significant F value in the analyses, we present only those effects as substantial which obtained a partial η^2 of at least 1%. Results of the MANOVA are summarised in Table 2, where the mean values across the six countries are presented as well as the F statistics,

Table 2 MANOVA for ratings in domain-specific and general life satisfaction

Country	M	SD	Factor	<i>F</i>	η^2	Power
Satisfaction with family relationships						
NL	4.52	0.82	Country	37.76***	0.02	1.00
L	4.34	0.91	Age	7.52***	0.00	0.99
I	4.56	0.78	Gender	3.34	0.00	0.45
A	4.25	0.93				
UK	4.60	0.78				
S	4.32	0.92				
Total	4.42	0.87				
Satisfaction with friendship relationships						
NL	4.57	0.76	Country	82.07***	0.03	1.00
L	4.27	0.85	Age	8.56***	0.00	0.99
I	4.31	0.83	Gender	2.48	0.00	0.35
A	4.21	0.84				
UK	4.61	0.70				
S	4.12	0.87				
Total	4.33	0.84				
Overall satisfaction with leisure time activities						
NL	4.11	0.84	Country	44.67***	0.02	1.00
L	3.96	0.92	Age	35.12***	0.01	1.00
I	3.70	1.06	Gender	0.40	0.00	0.09
A	3.87	0.92				
UK	4.08	1.04				
S	3.79	0.87				
Total	3.91	0.95				
Overall satisfaction with productive activities						
NL	4.07	0.71	Country	35.73***	0.02	1.00
L	3.99	0.88	Age	35.13***	0.01	1.00
I	3.83	1.01	Gender	3.80	0.00	0.49
A	3.87	0.90				
UK	4.15	0.99				
S	3.89	0.80				
Total	3.96	0.89				
Estimated need for more medical care						
NL	0.06	0.23	Country	37.52***	0.02	1.00
L	0.07	0.25	Age	1.46	0.00	0.79
I	0.19	0.39	Gender	14.85**	0.00	0.97
A	0.10	0.31				
UK	0.11	0.31				
S	0.10	0.32				
Total	0.10	0.30				
Rating of overall physical health						
NL	1.86	0.74	Country	40.46***	0.02	1.00
L	1.69	0.75	Age	83.11***	0.02	1.00
I	1.56	0.72	Gender	35.39***	0.00	1.00
A	1.68	0.78				
UK	1.83	0.82				
S	1.75	0.79				
Total	1.73	0.77				
Material resources meet needs						
NL	0.33	0.47	Country	86.26***	0.04	1.00
L	0.46	0.50	Age	3.36	0.00	0.80
I	0.12	0.33	Gender	24.12***	0.00	0.99
A	0.42	0.49				
UK	0.31	0.46				
S	0.28	0.45				
Total	0.32	0.47				
Downward material security						
NL	0.30	0.46	Country	17.73***	0.01	1.00
L	0.17	0.37	Age	2.28	0.00	0.58
I	0.18	0.38	Gender	52.29***	0.01	1.00
A	0.19	0.39				
UK	0.24	0.43				
S	0.23	0.42				
Total	0.21	0.41				

Table 2 (Contd.)

Country	M	SD	Factor	<i>F</i>	η^2	Power
General life satisfaction						
NL	1.33	0.36	Country	31.50***	0.01	1.00
L	1.28	0.39	Age	65.01***	0.02	1.00
I	1.15	0.43	Gender	77.66***	0.01	1.00
A	1.27	0.40				
UK	1.29	0.42				
S	1.23	0.41				
Total	1.25	0.41				

**** $p < 0.00$; ** $p < 0.01$; * $p < 0.05$

explanation of partial variance and observed power of the independent variables. Higher order interactions were omitted from the table since all observed effects were negligible.

Satisfaction with social relationships

A significant effect of country was observed for both dependent variables, explaining 2% of the variance in satisfaction with family relations and 4% of that in friendship satisfaction. Although statistically significant, the effect of age was not substantial, accounting for less than 1% of variance, and gender did not show a significant contribution. An inspection of the means showed that satisfaction with both kinds of relationship was estimated quite highly, the distribution on both ratings being skewed to the right. The grand mean for family relations was 4.42 (SD 0.87) and for friendship relations 4.33 (SD 0.84). This was reflected at the level of the total sample by almost 90% of the respondents stating that they were 'satisfied' or 'highly satisfied' with both kinds of relationships. Differences between the participating countries must of course be placed in the context of these distributional characteristics.

Post hoc multiple comparisons of observed means via Tukey's 'honestly significantly different' (HSD) measure showed that the samples from the UK ($M = 4.60$), Italy ($M = 4.56$) and The Netherlands ($M = 4.52$) constituted a homogeneous subset, with significantly higher satisfaction ratings of family relations than the national samples of Luxembourg ($M = 4.34$), Sweden ($M = 4.32$) and Austria ($M = 4.25$). Three subsets were identified with respect to friendship relations: the UK ($M = 4.61$) and The Netherlands ($M = 4.57$) in a first set, followed by Italy ($M = 4.31$), Luxembourg ($M = 4.27$) and Austria ($M = 4.21$) in a second set, and the Swedish sample in a last set being described by the lowest estimation ($M = 4.12$). Further analyses showed that satisfaction with family relations was estimated higher than satisfaction with friendship relations in the Swedish, Italian and Luxembourg samples. In the Austrian sample, no significant difference was observed, and in the Dutch and British samples satisfaction with friendship relationships was rated higher than family relationships.

Life activities

Substantial effects of country and age were observed for the satisfaction ratings with productive and leisure time activities accounting for 3% of variance, whereas gender had no significant effect. With respect to leisure time activities, the ratings in the national samples showed a dispersion around the overall mean of 3.91, indicating a comparatively high satisfaction. The national rates in The Netherlands ($M = 4.11$) and the UK ($M = 4.08$) showed the highest satisfaction, followed by Luxembourg ($M = 3.96$), Austria ($M = 3.87$), Sweden ($M = 3.79$) and Italy ($M = 3.70$). With respect to productive activities a comparable profile resulted, with the UK ($M = 4.15$) showing the highest rating, followed by The Netherlands ($M = 4.07$), Luxembourg ($M = 3.99$), Sweden ($M = 3.89$), Austria ($M = 3.87$) and Italy ($M = 3.83$).

Two age effects explaining 1% of variance in each dependent variable were observed. Satisfaction with productive activities was highest in the two youngest groups of 50–59 ($M = 3.98$) and 60–69 years ($M = 4.40$), followed by those aged 70–79 years ($M = 3.91$) and then the oldest group ($M = 3.71$). With respect to leisure time satisfaction respondents between 60–69 years of age reported the highest satisfaction ($M = 4.01$), those aged 50–59 years ($M = 3.9$) and 70–79 years ($M = 3.89$) showed comparably lower ratings, and the oldest age group reported the least satisfaction. This finding indicates that the age group described by the age of retirement from working life showed the highest leisure time satisfaction, whereas those still working showed lower and comparable ratings to the group aged 70–79 years. The lower ratings in the latter group as well as the oldest group may indicate deterioration in physical ability as well as a lack of opportunity structures, which may also account for the lower satisfaction ratings with productive activities.

Health and functional status

With respect to the estimated need for medical care the variable of country explained 2% of the variance. Post hoc tests showed that the perceived need for more medical care was highest in Italy ($M = 0.19$); this was

lower in the UK ($M=0.11$), Austria ($M=0.10$), Sweden ($M=0.10$), Luxembourg ($M=0.07$), and The Netherlands ($M=0.06$). Age differences with respect to this variable were negligible. A very small effect was observed for gender, with women ($M=0.11$) perceiving a higher need than men ($M=0.09$) for medical care than that which they were presently receiving.

Regarding subjective health rating, two substantial effects were observed with country and age, each explaining 2% of variance. The overall mean on subjective health was 1.73, indicating a mean evaluation of 'good' health. This was estimated best in The Netherlands ($M=1.86$) and the UK ($M=1.83$), followed by Sweden ($M=1.75$), Luxembourg ($M=1.69$), Austria ($M=1.68$) and Italy ($M=1.56$). A comparatively pronounced and expected effect was observed between age groups, with lower subjective health ratings with increasing age. The two youngest age groups had comparable ratings (50–59 years: $M=1.82$; 60–69 years: $M=1.79$), and differed significantly from the age group 70–79 years ($M=1.6$), which still held a higher rating than the oldest group ($M=1.5$). This effect was more pronounced in women than in men (see Fig. 1).

Material resources

The first indicator used here described the proportion of respondents choosing the response category 'very well' to the question of whether financial resources met their needs. Significant differences between the six national samples accounted for 4% of variance, which marked the strongest effect of country in these analyses. The most favourable ratings were found in the Luxembourg sample ($M=0.46$), followed by those in Austria ($M=0.42$), The Netherlands ($M=0.33$), UK ($M=0.31$), Sweden ($M=0.28$) and Italy ($M=0.12$). The age effect was negligible; a significant effect of gender qualified this

finding as women ($M=0.30$) showed a less favourable rating than men ($M=0.39$).

Interestingly, the differences concerning the adequacy of finances were not reflected in the social comparison rating. Here, the number of positive comparisons was highest in The Netherlands ($M=0.30$), followed by the UK ($M=0.24$), Sweden ($M=0.23$), Austria ($M=0.19$), Italy ($M=0.18$) and Luxembourg ($M=0.17$). Age did not show a significant effect, but gender had a comparatively pronounced effect, indicating—in line with the above finding—that women ($M=0.18$) recorded less downward social comparison than men ($M=0.25$).

General life satisfaction

Country ($\eta^2=0.01$), age group ($\eta^2=0.02$) and gender ($\eta^2=0.01$) explained 4% of the variance in general life satisfaction. Post hoc tests revealed that the Dutch sample ($M=1.33$) had the highest mean, followed by those in the UK ($M=1.29$), Luxembourg ($M=1.28$) and Austria ($M=1.27$). In Sweden ($M=1.23$), ratings of general life satisfaction were lower, but still significantly higher than in Italy ($M=1.15$). Mean values for the four age groups are presented separately for men and women in Fig. 2 and show a decrease in ratings of general life satisfaction across age groups, which was more pronounced in women than in men.

Summary of mean differences

An overall impression from the above findings regarding domain-specific and general satisfaction ratings on the national level, with homogeneous subsets identified by post hoc tests, is presented in Table 3 for each dependent variable. This shows a clear profile especially for The Netherlands and the UK samples since they obtained the comparatively highest ratings for all indicators. The

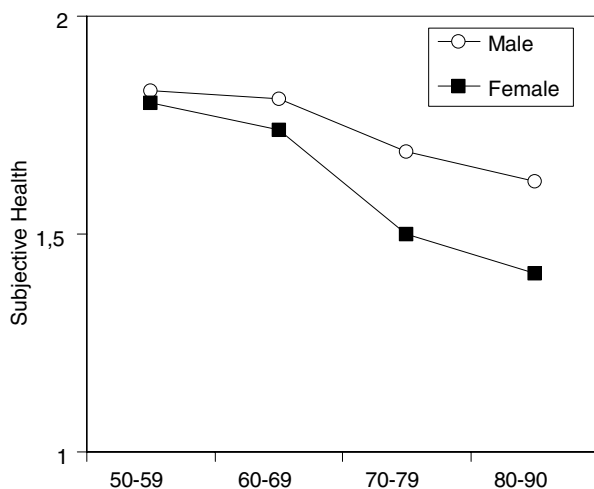


Fig. 1 Mean differences in subjective health ratings by age group and gender

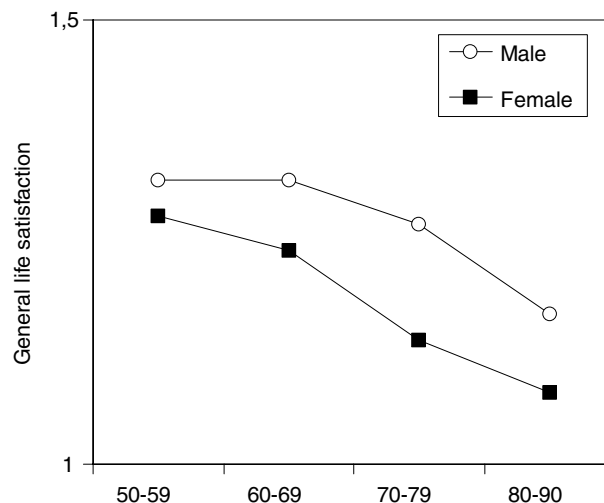


Fig. 2 Mean differences in general life satisfaction by age group and gender

samples from Luxembourg and Austria showed lower but still high positions in the mean rankings across the domains, especially with respect to material resources, both in the provision of health care and in the perceived adequacy of financial resources. The Swedish sample was located in subsets with lower satisfaction ratings thus obtaining no high ranking in any of the domains under consideration. Finally, the Italian sample—with the exception of satisfaction with family relations—showed the comparatively lowest ratings.

Discussion

This study explored national, age, and gender differences in life satisfaction ratings. The findings on the national level are in line with previously reported findings by Delhey (2004), indicating a stable pattern of generally content populations since the total means in life satisfaction indicators were all quite high. The Netherlands, UK, Luxembourg, and Austrian samples showed higher ratings than the Swedish and particularly the Italian sample. This is partly in accordance with the previous findings, with the exception that the UK sample obtained a better ranking in the present comparison.

We defined life satisfaction above as a psychological phenomenon indicating the subjective evaluation of one's specific and general life situation in age. This subjective evaluation is regarded as a transformation of experienced objective living conditions into a subjective 'reality' (see Ferring and Filipp 2000). Especially the domain-specific ratings should reflect the data-driven evaluations, whereas general life satisfaction should represent the individual transformation of experienced living contexts into life satisfaction via individual regulative strategies. The ESAW takes an interdisciplinary approach that combines sociological and psychological perspectives, and interpretation of the findings relies on both. It is important to note that such an endeavour can only be partially successful since the objectives and perspectives of the disciplines differ, and an explanation

of findings relying on both perspectives represents a kind of balancing act at the price of not entirely giving sufficient consideration to either discipline let alone finding the most suitable explanation.

National differences in age structure, economic situation and the welfare system are correlated with differences in life satisfaction between the six countries. The three factors are interrelated and will challenge European societies in the future since an ageing society will have severe consequences for national economies in shaping the development of welfare systems. Welfare reforms in Europe will affect individual life situations in the areas of education, health services and social security to name just some indicators.

Taking the data together, especially Italy and Sweden were identified by demographic 'risk factors.' Italy is the oldest country with the lowest fertility rate, highest unemployment rate and an early age of retirement. In terms of its population Sweden is also one of the oldest European countries and is in a particular position due to tensions in its welfare system in recent decades due to economic recession, which is also true for the UK. The smaller countries, i.e. Austria, Luxembourg and The Netherlands, also experienced economic challenges, but up until now they could be compensated for by the use of foreign labour, particularly in Luxembourg (Statec: http://www.statec.lu/html_fr/statistiques/index.html).

If one uses the concept of 'liveability', described by Veenhoven (1997, 2000) as the degree to which the living conditions in a society fit the needs of its citizens and which therefore represent the link between objective living conditions and their subjective appraisal, one may conclude from the findings of this study that living conditions have changed in Italy, Sweden and the UK. This is reflected in lower satisfaction ratings on the part of the first two countries mentioned. In contrast, the objective conditions of liveability (e.g. labour market, welfare) are comparatively better in the other participating countries, which may explain their heightened ratings of life satisfaction. Concerning the UK, it can be assumed that good standards of living underlying the

Table 3 Total means, standard deviations and mean rankings for six national samples

Domain ^a	M	SD	Ranking ^b					
			1	2	3	4	5	6
Family	4.42	0.97	[UK	I	NL]	[L	S	A]
Friendship	4.33	0.84	[UK	NL]	[I	A]	[S]	[S]
Leisure	3.91	0.95	[NL	UK]	[L	A]	S]	[I]
Productive	3.96	0.89	[UK]	[NL	L]	[S	A	I]
Health 1	0.32	0.41	[NL	L]	[UK	A	S]	[I]
Health 2	1.73	0.77	[NL	UK]	[S	L	A]	[I]
Material 1	0.32	0.47	[L]	[A]	[NL	UK	S]	[I]
Material 2	0.21	0.41	[NL]	[UK	S]	[A	I	L]
General	1.25	0.21	[NL]	[UK	L	A]	[S]	[I]

^aFamily: satisfaction with family relations; friends: satisfaction with friendship relations; leisure: satisfaction with leisure time activities; productive: satisfaction with productive activities; health 1: perceived need for more medical care; health 2: subjective health rat-

ing; material 1: adequacy of material resources; material 2: social comparison for material resources; general: general life satisfaction
^bHomogeneous subsets are indicated by brackets

satisfaction ratings may have changed since welfare reforms initiated in the 1970s—compared with other European nations—have been established for the longest time there. Changed criteria in relation to a changed life situation may therefore explain the profile of satisfaction ratings obtained for the UK sample.

This study identified age-related differences in subjective health, satisfaction with leisure time and productive activities, and general life satisfaction. These differences indicate a deterioration in health which may be associated with a reduced capacity to perform activities and resulting in a decreasing satisfaction in these domains. This may also contribute to a lowered general life satisfaction across the age groups. Interestingly, these differences were not that substantially greater than the effect of national differences, which explained comparatively more variance in the other chosen indicators (see also Veenhoven 1997).

Two effects emerged for gender. Women showed significantly lower satisfaction with health status and with material security. The latter finding is in line with those of Eurostat (<http://europa.eu.int/comm/eurostat/Public>), which show that women aged 65 years or over in the EU have much lower incomes and much higher risk of poverty than men. Our findings underline this result and indicate the necessity of special attention to ageing women as a risk group in all countries. The gender differences concerning subjective health may be not necessarily related to a worse health status, since recent data show a higher frequency of physician visits and hospital stays for women than for men aged over 65 years (Eurostat <http://europa.eu.int/comm/eurostat/Public>). These results therefore also suggest that differences in life style and health behaviours in men and women become more pronounced in old age (see Pinquart 1998).

Finally, the national comparisons here show expressed differences only with respect to material security, and in general the results indicate high levels of contentment with the domains under consideration. Nevertheless, the results also reflect differences in the liveability of nations described here by demographic and economic indicators. Furthermore, age and gender differences, which were independent and thus quasi-universal, are evident. In general, the findings underline the necessity of further reflections on the inter-relationships between ageing in Europe and its economic consequences.

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