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Happiness of Women and Men in Later Life: Nature, Determinants, and Prospects

Abstract. As they move into and through the retirement years women's advantage over men in happiness is reversed. Although the happiness of both sexes is affected similarly by retirement from work, marital disruption, and changes in income and health, the difference between men and women in the life cycle occurrence of retirement and widowhood results in different trends in happiness. Men who survive to older age benefit disproportionately from the positive effect on happiness of retirement, while women suffer disproportionately from the adverse effect of widowhood. For women and men in the same work and marital circumstances, women continue to be happier than men. In the future, the turnaround in the relative happiness of women and men in later life is likely to continue, but the shift will be somewhat smaller in magnitude.

Who are happier, women or men? Does the gender difference, if any, vary over the life cycle? The answers to these questions are a puzzle. A survey by Argyle (1987) concludes that there is little gender difference in satisfaction with life as a whole. A more recent review leads Mrocek and Kolarz (1998) to the view that "women appear to be less happy, and this seems to persist across all age groups" (p. 1336). In contrast, Nolen-Hoeksema and Rusting (1999) report that "a number of studies have found that women report experiencing greater happiness and more intense positive emotions than men" (p. 333). Recent statistical analyses by economists of large data sets for the United States, United Kingdom, and a number of continental European nations also find that women are happier (Blanchflower and Oswald, 2001; DiTella, MacCulloch, and Oswald, 2001; Oswald, 1997).

The mixed results in the literature arise from several sources. Generalizations are not always based on a nationally representative sample. Also, the possibility is seldom considered that the gender differential might differ at various points in the life cycle. Of the studies cited above, Mrocek and Kolarz are the exception. In addition, a clear distinction is not always made between the simple bivariate gender differential and the gender differential when circumstances such as marital and work status are held constant.

Another possible source of conflicting results is the use of point-of-time associations with age to infer change over the life cycle. If, for example, older persons are found to be happier than younger in the year 1990, it is sometimes inferred that happiness tends to increase over the life cycle. But those ages 65 to 74 in 1990 were born in the period 1916-25; those ages 25 to 34, in 1956-65. Clearly the two age groups have quite different histories. To line up these and the intervening age groups to infer life cycle change is to jumble together people that are different in many ways (cf. also George, 1992).¹

In this study I compare the happiness of women and men with and without controls for various circumstances, as they age from their fifties onward. I use a nationally representative data set, the General Social Survey (GSS) and the demographers' technique of cohort analysis, sometimes called a "synthetic panel," to follow essentially the same people as they age.

A previous paper using this technique found that for both sexes taken together, happiness remains essentially constant over the life course (Easterlin and Schaeffer, 1999; see also Easterlin 2001). Here, I find that, despite this

¹ Mrocek and Kolarz are characteristically careful on this point, saying "that we could not tell from these cross-sectional data whether there was an aging or cohort effect" (*ibid.*, p. 1338).

overall constancy, a reversal takes place in the relative well-being of women and men as they age from around 60 years old onward. Before this age, women are typically happier than men, but during their sixties, men's subjective well-being becomes greater than women's, and this differential persists as women and men progress through their seventies and eighties. The principal reason for this shift is gender differences in the changing composition of the older population. Men who survive to older age benefit disproportionately from the positive effect on subjective well-being of retirement, while women suffer disproportionately from the adverse effect of widowhood. When differences in work and marital status are controlled, the happiness differential is reversed – women are typically happier than men.

Data and methods

For most years from 1972 to 1998 the GSS includes the following question: “Taken all together, how would you say things are these days – would you say that you are very happy, pretty happy, or not too happy?” (National Opinion Research Center, 1999, p. 171). In the present analysis, I have coded the responses 3, 2, and 1, respectively; the mean happiness of a cohort at any given date is a simple average of the individual numerical responses thus coded.

As previously indicated, the life cycle pattern of happiness is obtained by following a ten-year birth cohort through the adult ages, linking appropriate age data for successive calendar years. Thus to trace the life cycle pattern of subjective well-being of the cohort born, say, in the decade 1911 to 1920, I link the mean happiness of those ages 52-61 in 1972 (the first survey year) to that of those ages 53-62 in 1973, 54-63 in 1974, and so on through ages 78-87 in 1998 (the last survey year). The happiness data span a 26 year period, so I am able to follow a given birth cohort for only that segment of its life cycle. But because I have cohorts starting in 1972 at younger as well as older ages, it is possible to form an impression of experience throughout most of the adult life cycle by bringing together the various segments of life cycle experience represented by the different birth cohorts. The youngest cohort included in the present analysis is that of 1931-40, which ages from 32-41 to 58-67; the oldest is that of 1891-1900, which starts at ages 72-81 and can be followed through ages 79-88 (the shorter time span is due to the fact that single-year-of-age data are available in the GSS only through age 88). Throughout the analysis a five year moving average is calculated from the annual data for a cohort to reduce the variability arising from small sample sizes.² Five year averages are dated at the midpoint of the average; thus, the average for 1972-76 is dated at 1974. In some cases, a five item average is computed for a time span exceeding five years, because no GSS survey was conducted in 1979, 1981, 1992, 1995, and 1997, and the average is dated at the mid-point of the longer span.

Life cycle patterns of work status, marital status, self-reported health, and real household income per capita are obtained like those for happiness as five-item moving averages of annual data for each cohort by gender. Work status is a six category variable (full-time, part-time, unemployed, retired, keeping house, and other). Marital status is a four category variable (married, widowed, divorced or separated, and never-married). Self-reported health is four categories (excellent, good, fair, poor). Household income per capita for each respondent is obtained as the quotient of household income and household size. Income in the GSS is reported in categories ranging in number from 12 in 1972 to 23 in 1998. Each respondent is assigned the midpoint value of the category

² The lowest ‘n’ for a single five-year average for a given gender is 127; in most cases ‘n’ is 300 or more.

reported; for those reporting in the open-ended top income category, the bottom income of the category is multiplied by factors increasing from 1.1 in 1972 to 1.166 in 1998; for those reporting in the open-ended bottom category, the top income of the category is multiplied by 0.5. Money income in each year is converted to 1994 dollars using the Consumer Price Index of the Bureau of Labor Statistics. In preliminary analyses, age (in 5 year groupings) was included as an independent variable, but it was subsequently deleted because of multicollinearity problems. The mean and standard deviation of each variable are given in Appendix Table A.1, columns 1 and 2.

The relationship of happiness to the four independent variables – work status, marital status, health, and income – is estimated for each gender by an ordered logit regression, pooling data for all persons 50 and over in the survey years 1972 through 1998 for which observations on all variables are available. (The question on self-reported health was not asked in 1978, 1983, and 1986 and was asked of two-thirds of the sample from 1988 through 1994.) The logit regression for each gender is used to obtain predicted values of happiness for each cohort for dates corresponding to those for actual happiness by substituting in the regression equation each cohort's actual (5 year average) value for each independent variable in a given year.

Results

Gender differentials in life cycle happiness

As women and men go through the life cycle a shift occurs in their relative happiness. In the younger and middle adult years women are typically happier than men; at older ages the opposite is true. For example, among persons born between 1911 and 1920, who were aging from 54-63 to 74-83 in the time period covered here, females were happier than males at every age up to 58-67; thereafter, males were consistently happier (see Figure 1, curve labeled c. 1911-20). This pattern is repeated by other cohorts. Note that at older ages, the right side of Figure 1, the curves lie above the zero axis; at younger ages, the curves tend to be below. The turnaround in the gender differential appears to be due chiefly to an increase in the absolute level of happiness of males, although there is also a slight decline in the average happiness of females from before to after the crossover.

The typical size of the shift within a cohort in the relative happiness of men and women is hard to pinpoint because of data limitations, but it seems to be considerable. Based on rough impressions from Figure 1, the overall shift is roughly 0.2 on our 1-3 scale of happiness – from an excess at ages under 60 of female over male happiness of 0.05 to an excess at older ages in favor of males of nearly 0.15. This is equivalent to shifting one-fifth of the male population into the next higher happiness category – say from “pretty happy” to “very happy” – holding the female distribution constant.

There is a hint that among younger cohorts the crossover from excess female to excess male happiness is occurring earlier than in the past. In the two youngest cohorts, those of 1921-30 and 1931-40, the shift to a male excess occurs around ages 52-61. For the cohort born in 1911-20 the shift occurs at ages 59-68.

The relation of happiness to life circumstances

Older persons, both women and men, are happiest if retired, currently married, in excellent health, and high income. They are least happy if unemployed; widowed, divorced, or separated; in poor health, and low income (Appendix Table A-1, column 3). These relationships, found in an ordered logit regression

of GSS data 1972-98 for the population 50 and older, are consistent with those typically observed (cf. Blanchflower and Oswald 1999; Frey and Stutzer 2001; Gallie and Russell, 1998; Michalos, Zumbo, and Hubley, 2000; Wortman, Silver, and Kessler, 1993). Regressions derived from ordinary least squares give results for the signs and significance of coefficients quite similar to those obtained with ordered logit (Table A-1, column 4).

The happiness of men and women is affected quite similarly by changes in their work or marital status, health, and income. For married persons in good health with median income, retirement from full-time job, adds 0.10, on a 1-3 scale, to the happiness of women, and 0.14 to the happiness of men (Table 1, panel A, columns 1 and 2). For married persons with a full-time job, good health and median income, becoming widowed reduces happiness by 0.32 among women, and 0.42 among men (panel B, columns 3 and 4). Variations in health also have a noticeable impact – downward shifts between adjacent categories reduce happiness by almost 0.2 (panel C). In contrast, income differences of the magnitude typically found between men and women – on the order of 25 percent – have only a slight impact on happiness (panel D). This small effect is, in part, because a 25 percent difference in income is a fairly small change relative to the income distribution as a whole. It is also due to the fact that the income effect in Table 1 is after employment, marital status, and health are controlled; the bivariate effect of income on happiness would include as well the adverse effects of unemployment and poor health on income, and be considerably larger than the multivariate effect.

Predicted gender differentials in life cycle happiness

The similarity in the regression results by gender implies that if women and men had the same changes in life cycle circumstances as they move into older age, their happiness would change in a similar way. As we have seen, however, their happiness changes differently. The principal reason for this is the difference in their life cycle patterns of work and marital status. Typically, at any given age a larger proportion of men are retired, boosting their happiness, and a larger proportion of women are widowed, lowering their happiness.

Consider, again, for example, the cohort of 1911-20, whose changing life cycle circumstances are fairly typical of the cohorts generally. At ages 54-63, the proportion of men retired exceeds that of women by about 11 percentage points (Figure 2, panel C). Over the next eight to nine years as the cohort ages, this excess rises to a peak of about 35 percentage points, and then levels off and drifts gradually downward. Thus, as the cohort moves from its fifties to its sixties, retirement is giving a disproportionate lift to the happiness of men relative to women.

In contrast, widowhood is acting on the happiness differential within the cohort to lower the happiness of women relative to men. At ages 54-63, the proportion of women widowed exceeds that of men by about 13 percentage points (Figure 2, panel D). In the next eight to nine years the excess proportion of women that are widowed rises to about 30 percentage points, and eventually, by ages 72-81, to about 44 percentage points, after which it levels off. This sustained rise in the excess of women widowed has a continuing adverse impact on the happiness of women relative to men.

Unlike work and marital status, the male-female differences in health and income have little impact on the trend in the happiness differential. This is because they do not move consistently up or down (panels E and F). In contrast, the excess percentage of men retired and the excess percentage of women widowed both trace paths in later life that are rather similar to that of the gender differential in happiness (panels A, C, D).

The differential in male-female happiness in the cohort of 1911-20 predicted by these differing life cycle patterns of work and marital status in fact approximates closely the actual differential in happiness (Figure 2, panels A and B). Not only is the turnaround in the male-female differential predicted, but the timing of the crossover is also approximated fairly closely. The predicted values here are obtained by substituting in the regression equation for each gender the absolute values at each age of work status, marital status, health, and income (Appendix Table A-1, column 3).

Taking all of the cohorts together, the predicted differentials in happiness over the life cycle look quite similar to the actual differentials (compare Figure 3 with Figure 1). At older ages men are consistently happier than women; at younger ages, the opposite is true; and the magnitude of the shift approaches 0.2 on a 1-3 scale. The turnaround in the differential occurs as cohorts age from their fifties to their sixties, and the crossover occurs a little earlier among the youngest cohorts. Thus, in its main features, the predicted pattern of the happiness differential replicates well the actual pattern.

Gender differentials when life circumstances are the same

Happiness differences between women and men in later life depend to an important extent on differences in their work and marital circumstances. But what about women and men in the same situation? Perhaps the happiness difference at older ages is reversed when circumstances are alike. Note that in the limited number of same-circumstance comparisons in Table 1, women are typically happier than men.

A more general test confirms that for those in like situations in the population 50 and over women are, on average, happier than men. In a regression run on pooled data for both sexes in which work status, marital status, health, and income are controlled, females are significantly happier (Table A-2). The overall happiness differential in favor of males at older ages thus means that the effect on happiness of gender differences in work and marriage status overrides the tendency for women to be happier than men in like conditions.

Implications for the future

The older population here is persons born between 1890 and 1940. What of those born after 1940 who will be reaching their sixties in this century – will the same turnaround in the gender differential occur? The answer appears to be yes, because the gender differentials in work and marital status will persist. However, the magnitude of the shift is likely to be smaller, because of a narrowing in the gender differential in full-time work.

The narrowing of the gender differential in work status is suggested by comparing younger with older cohorts at the same age. For example, when the cohort of 1931-40 was 34 to 43 years old the percentage of men with full-time jobs was 54 percentage points higher than that of women. The differential at this age span for the next two younger cohorts, those of 1941-50 and 1951-60, is only about half as great, 30 and 25 percentage points. In the future, while men will continue to benefit more than women from the impact on happiness of retirement from full-time work, the differential magnitude of the impact will be less.

In the case of widowhood, the gender differential is unlikely to change. Given below (data permitting) is the excess percentage of women widowed relative to men for different birth cohorts at the same age:

	Ages 34-43	44-53	54-63	64-73
Birth cohort 1951-60	2	-	-	-
1941-50	2	3	-	-
1931-40	2	7	14	-
1921-30	-	7	14	30
1911-20	-	-	14	31
1901-10	-	-	-	29

A vertical reading of the tabulation gives little indication that the widowhood differential is smaller for cohorts born later in the century. For example, in each of the three cohorts that can be compared at ages 54-63, the differential is an identical 14 percent. A slight exception to the similarity in the gender differential across cohorts at a given age is at ages 44-53, but in the context of the results for the other age groups, this is too slim a basis for inferring a trend toward a narrowing of the widowhood differential.

Thus, the adverse impact of widowhood on the happiness of women relative to men is likely to persist in the future. So too will the beneficial effect on men of retirement from full-time work, although the differential benefit for men will be lessened. Overall, the shift in the gender differential in later ages is likely to continue, but to be somewhat smaller in magnitude.

Summary

In speculating on the sources of gender differences in well-being, Nolen-Hoeksema and Rusting (1999) suggest that “males are socialized not to experience or express affect as intensely as females . . .” (p. 344) There is nothing here to contradict this speculation, but, as the authors recognize, other circumstances may also affect the relative happiness of women and men. Among older persons of both sexes, retirement and income have positive effects on well-being, and widowhood and poor health, negative effects. As women and men age from their fifties onward, the incidence of retirement and widowhood differs markedly by gender. Men benefit disproportionately from the positive effect of retirement, while women suffer disproportionately from the negative effect of widowhood. Because of this, the excess of female over male happiness is gradually reversed as the two sexes age from their fifties onward. For men and women in the same work and marital circumstances, however, females remain happier than men, as a result perhaps of the difference in socialization experience emphasized by Nolen-Hoeksema and Rusting.

In the future, the differential benefit from retirement that men experience will lessen somewhat, because of the increased proportion of full-time workers among women in more recent birth cohorts. But the widowhood differential is likely to persist both in direction and magnitude. The reversal from excess female to excess male happiness in later life is therefore likely to continue, although the magnitude of the shift will be more moderate.

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Figure 1

Table 1. Predicted Happiness by Work Status, Marital Status, Health, and Income,
Persons Aged 50 and Older, by Gender^a

	(1)	(2)		(3)	(4)
	Female	Male		Female	Male
A. <u>Work Status</u>			B. <u>Marital status</u>		
Retired	2.66	2.67	Married	2.56	2.53
Keeping house	2.62	2.63	Never-married	2.36	2.19
Full-time worker	2.56	2.53	Divorced or separated	2.20	2.15
Part-time worker	2.59	2.49	Widowed	2.24	2.11
Other	2.48	2.54			
Unemployed	2.17	2.35			
C. <u>Self-reported health</u>			D. <u>Household income per capita</u>		
Excellent	2.77	2.71	1.25 median	2.57	2.54
Good	2.56	2.53	Median	2.56	2.53
Fair	2.40	2.40	0.75 median	2.55	2.52
Poor	2.22	2.14			

- a. Estimated from ordered logit regressions in Appendix Table A-1. Reference groups are 'full-time worker,' 'married,' 'good health,' and 'median income.' Thus, for work status above, the panel A, column (1) entries give the predicted happiness of married women in good health with median income whose work status varies from retired to unemployed; panel B, column 3 gives the predicted happiness for women of each marital status who are employed full time; in good health with median income; and so on.

Figure 2

Fig. 2. Excess of Men over Women in Specified Characteristics,
Cohort of 1911-1920 from Ages 54-63 to 74-83 (5-year moving average).

Figure 3

Appendix A

Table A-1
 Regression Statistics: Happiness on Specified Variables,
 Population Ages 50 and Over, By Gender, 1972-1998

Variable	(1) Mean	(2) Standard deviation	(3) Ordered logit coefficient	(4) Ordinary least squares coefficient
<u>A. Females</u>				
1. Happiness	2.209	.657	----	----
2. Work status				
a. Full-time worker ^a	.209	.407	----	----
b. Retired	.235	.424	.338***	.104***
c. Keeping house	.419	.493	.205**	.062**
d. Part-time worker	.089	.284	.104	.037
e. Other	.042	.200	-.267*	-.088*
f. Unemployed	.007	.080	-1.094**	-.357**
3. Marital status				
a. Married ^a	.478	.500	----	----
b. Never-married	.045	.207	-.608***	-.184***
c. Divorced, separated	.128	.334	-1.015***	-.319***
d. Widowed	.349	.477	-.911***	-.287***
4. Self-reported health				
a. Excellent	.209	.407	.829***	.237***
b. Good ^a	.397	.489	----	----
c. Fair	.277	.448	-.475***	-.154***
d. Poor	.117	.321	-.949***	-.299***
5. Ln hh income p.c., (1994 dollars)	16,279	13,494	8.08e ⁻⁶ ***	2.52e ⁻⁶ ***
Number of observations			5277	5277
R ² or pseudo R ²			.0767	.1365
Prob > F			.0000	.0000

(continued on following page)

Table A-1 cont'd.

Variable	(1) Mean	(2) Standard deviation	(3) Ordered logit coefficient	(4) Ordinary least squares coefficient
B. Males				
1. Happiness	2.249	.656	----	----
2. Work status				
a. Full-time worker ^a	.421	.494	----	----
b. Retired	.433	.496	.458***	.143***
c. Keeping house	.010	.098	.322	.089
d. Part-time worker	.062	.241	-.135	-.051
e. Other	.049	.216	.004	.001
f. Unemployed	.026	.158	-.517*	-.174**
3. Marital status				
a. Married ^a	.724	.447	----	----
b. Never-married	.060	.238	-.935***	-.298***
c. Divorced, separated	.116	.320	-1.039***	-.326***
d. Widowed	.100	.300	-1.130***	-.359***
4. Self-reported health				
a. Excellent	.231	.421	.658***	.195***
b. Good ^a	.403	.491	----	----
c. Fair	.258	.438	-.389***	-.126***
d. Poor	.108	.310	-1.057***	-.333***
6. Ln hh income p.c., (1994 dollars)	19,037	15,059	8.82e ⁻⁶ ***	2.79e ⁻⁶ ***
Number of observations			4155	4155
R ² or pseudo R ²			.0674	.1241
Prob > F			.0000	.0000

a. Omitted group in regression.

Significance levels: * .01 < p < .10; ** .001 < p < .01; *** p < .001.

Note: Happiness is measured on a three point scale (very happy = 3, pretty happy = 2, not too happy = 1).

Source: National Opinion Research Center, 1999.

Table A-2
 Regression Statistics: Happiness on Specified Variables,
 Both Sexes Combined, Ages 50 and Over, 1972-98

Variable	(1) Mean	(2) Standard deviation	(3) Ordered logit coefficient	(4) Ordinary least squares coefficient
1. Happiness	2.226	.656	---	---
2. Gender				
a. Male ^a	.420	.494	---	---
b. Female	.580	.560	.155**	.049**
3. Work status				
a. Full-time worker ^a	.298	.457	---	---
b. Retired	.318	.466	.407***	.126***
c. Keeping house	.247	.431	.212**	.064**
d. Part-time worker	.077	.267	.021	.007
e. Other	.045	.207	-.128	-.043
f. Unemployed	.015	.120	-.694***	-.226***
4. Marital status				
a. Married ^a	.581	.493	---	---
b. Never-married	.051	.221	-.783***	-.244***
c. Divorced, separated	.123	.328	-1.034***	-.326***
d. Widowed	.245	.430	-.982***	-.311***
5. Self-reported health				
a. Excellent	.218	.413	.752***	.219***
b. Good ^a	.400	.490	---	---
c. Fair	.269	.443	-.436***	-.142***
d. Poor	.113	.316	-.990***	-.312***
b. Ln hh income p.c., (1994 dollars)	17,483	14,264	8.22e ⁻⁶ ***	2.59e ⁻⁶ ***
Number of observations			9432	9432
R ² or pseudo R ²			.0721	.1299
Prob > F			.0000	.0000

a. Omitted group in regression.

Significance levels: ** .001 < p < .01; *** p < .001.

Note: Happiness is measured on a three point scale (very happy = 3, pretty happy = 2, not too happy = 1).

Source: National Opinion Research Center, 1999.