Marital Status is Misunderstood in Happiness Models

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Outline

1 Motivation

2 Empirical Methodology

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4 Results

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Motivation

- Comfortable empirical consensus: marriage has a positive and enduring influence on well-being.
- If being married makes people happy, why is divorce so prevalent?
- Some people in poor quality marriages could be miserable.
- Therefore usual test is too restrictive
- Could be gender differences
- Effects of other variable could be disguised
- The effect of other measures of well-being could have the same problem

Our Empirical Approach

1) Usual approach:

$$Happiness = \beta_0 + \beta_m X_m + \sum_{j=1}^{T} \beta_j X_j + \varepsilon$$

2) Our approach:

$$Happiness = \beta_0 + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + \sum_{j=1}^{T} \beta_j^* X_j + \varepsilon$$

1) How is our approach related to usual approach?

$$\beta_m \approx \overline{\gamma} = \sum_{i=1}^{3} w_i \gamma_i$$

Data

- US GSS

Cross-sectional surveys have been conducted by the National Opinion Research Centre (NORC) in the United States annually for most years 1972-1994, and biennially beginning in 1994 with total 43317 people.

Happiness and marriage quality are available for every wave

- UK BHPS

Panel started in 1991 and wave 1 panel consists of some 5,500 households and 10,300 individuals drawn from 250 areas of Great Britain. Additional samples of 1,500 households in each of Scotland and Wales were added to the main sample in 1999, and in 2001 a sample of 2,000 households was added in Northern Ireland.

Happiness and marriage quality are available for every wave

- Germany GSOEP

Panel started in 1984, West-Germany panel added in 1991.

Happiness is available for every wave but marriage quality is available only for 2006 and 2007.

Data

- US GSS

1. Happiness: 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?
2. Marriage quality: Taking things all together, how would you describe your marriage - would you say that your marriage is very happy, pretty happy, or not too happy?

- UK BHPS

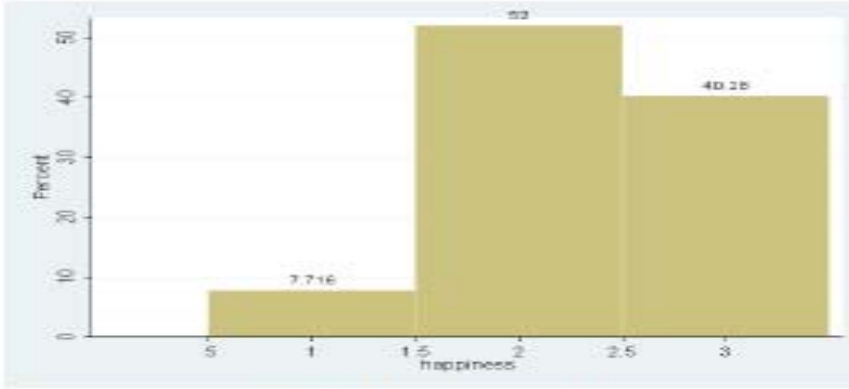
1. Life satisfaction: 1-7 and (1-3) not too happy; (4,5) pretty happy; (6,7) very happy.
2. Marriage quality: measured by satisfaction with partner 1-7 : (1-3) not too happily married; (4,5) pretty happily married; (6,7) very happily married.

- Germany GSOEP

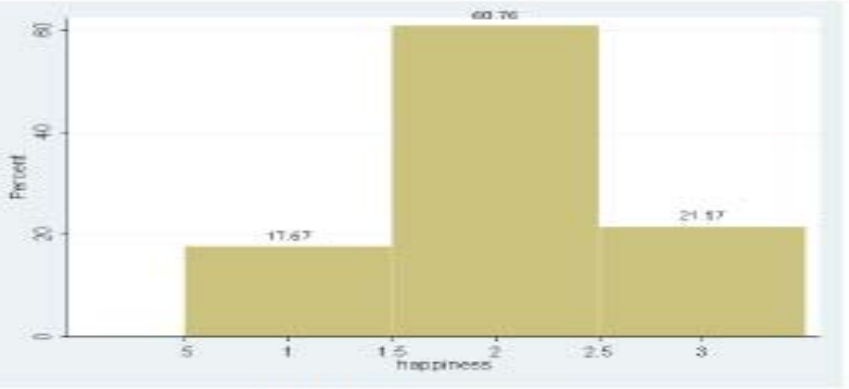
1. Life satisfaction : (0-6) not too happy; (7,8) pretty happy; (9,10) very happy.
2. Marriage quality: measured by satisfaction with family (0-6) not too happily married; (7,8) pretty happily married; (9,10) very happily married.

Descriptive Statistics of the Data

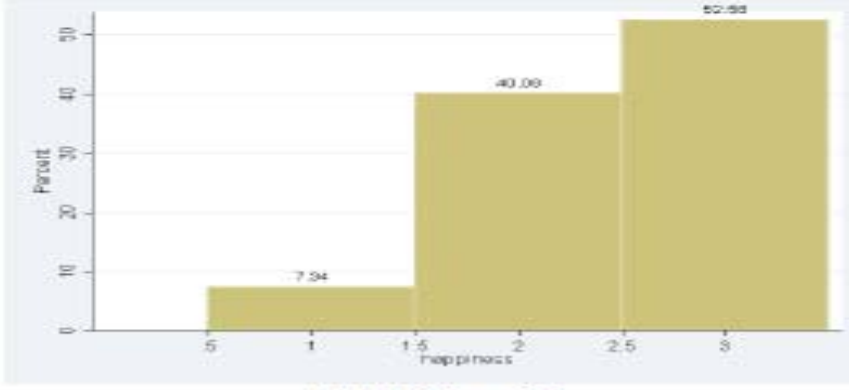
Variable	US GSS		BHPS		GSOEP	
	Mean	Stdev	Mean	Stdev	Mean	Stdev
Original happiness	2.2	0.63	5.3	1.25	7.0	1.78
Recoded happiness	2.2	0.63	2.4	0.64	1.9	0.67
Ln household income	9.9	0.98	4.7	1.12	7.9	0.59
Age	45.2	17.52	46.5	16.92	48.9	17.5
Own dwelling (%)	62.8	0.04	75.9	0.04	45.6	0.07
Rent dwelling (%)	35.0	0.03	24.1	0.03	54.4	0.07
Other dwelling (%)	2.2	0.01				
Employed (%)	61.9	0.02	57.5	0.02	60.9	0.02
Unemployed (%)	3.0	0.01	2.6	0.01	4.8	0.01
Not in the labour force (%)	35.1	0.02	39.9	0.02	34.4	0.03
Male (%)	43.9	0.02	45.6	0.02	47.6	0.02
Female (%)	56.1	0.02	54.4	0.02	52.4	0.02
Years of education	12.6	3.2	12.2	2.8	12.2	2.7
No children (%)	27.3	0.03	67.0	0.03	70.9	0.03
1 child (%)	16.0	0.02	15.4	0.02	15.1	0.02
More than 1 child (%)	57.6	0.02	17.5	0.02	14.0	0.02
Ln household size	0.9	0.57	0.9	0.53	0.9	0.49
Married (%)	55.4	0.02	64.0	0.02	60.0	0.02
Unmarried (%)	45.5	0.02	36.0	0.02	40.0	0.02
Self-reported health	3.0	0.85	3.8	0.94	3.4	0.95
Happiness with marriage	2.6	5.4				
Recoded satisfaction with partner			2.8	0.46		
Recoded satisfaction with family					2.2	0.75



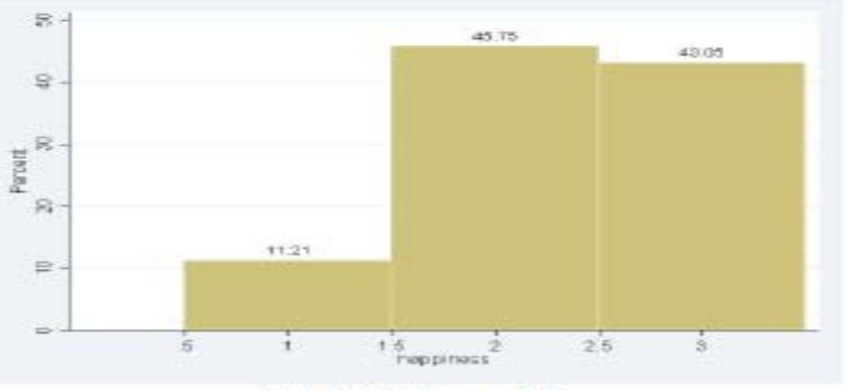
(a) US GSS/married



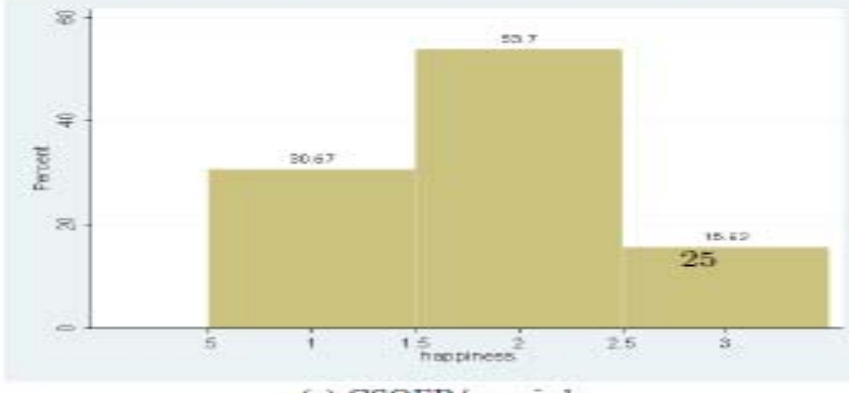
(b) US GSS/unmarried



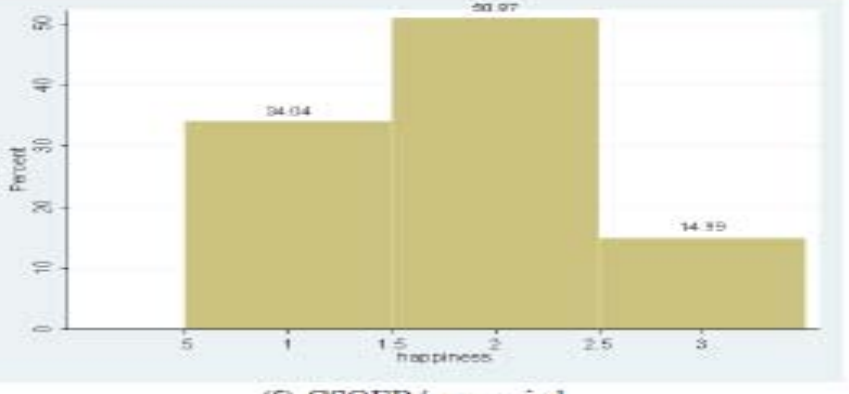
(c) BHPS/married



(d) BHPS/unmarried



(e) GSOEP/married



(f) GSOEP/unmarried

Figure 1: Distribution of happiness by marital status

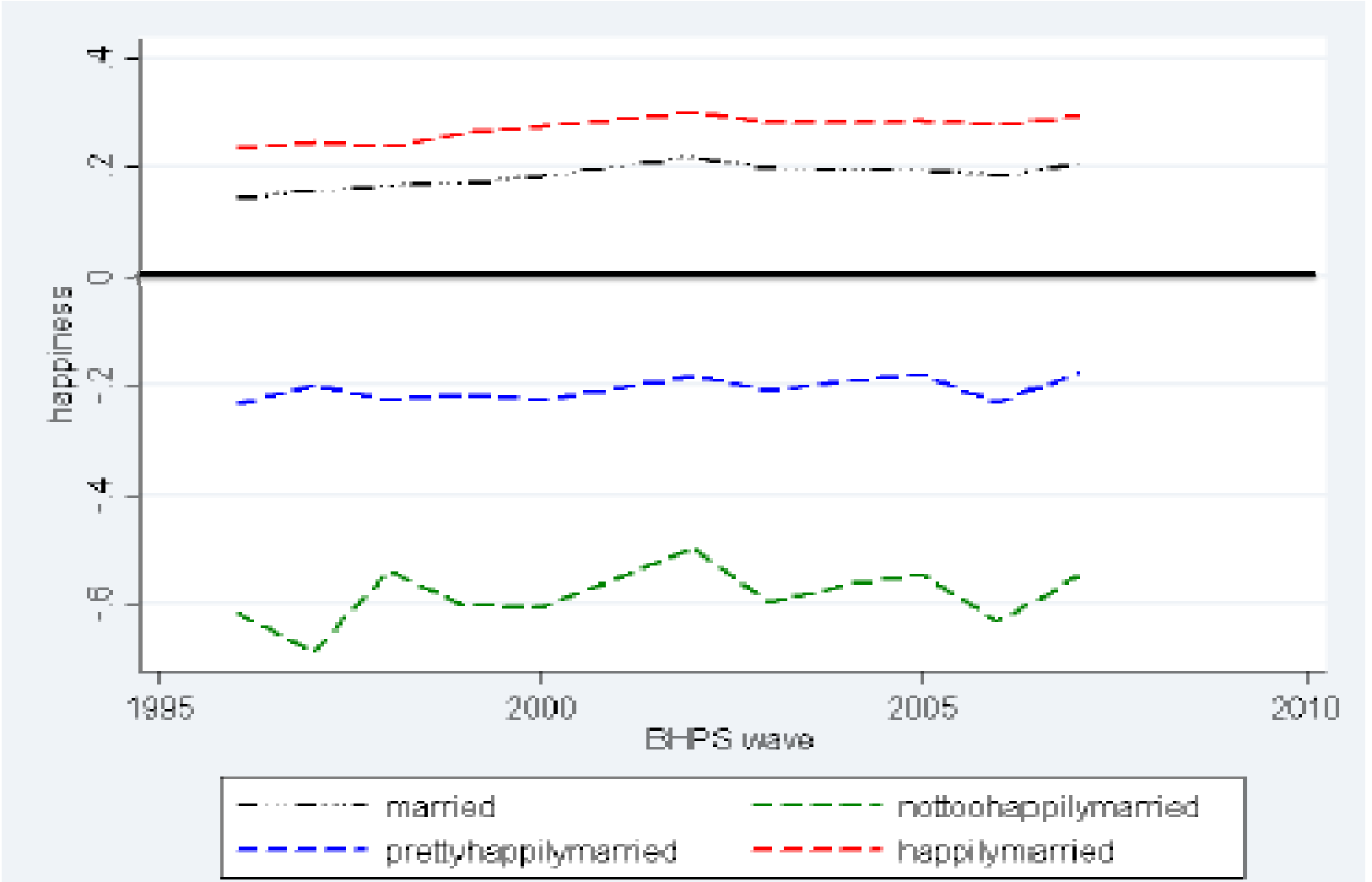
Baseline Regressions
Dependent Variable: Self-reported Happiness

	OLS		
	US GSS	**BHPS**	**GSOEP**
Married	0.251 (31.5)	0.205 (14.7)	0.136 (10.7)
Unmarried (omitted)			
Ln household income	0.049 (8.4)	0.023 (2.7)	0.182 (17.4)
Own dwelling (omitted)	-0.016 (1.7)	-0.089 (6.6)	-0.044 (4.5)
Rent dwelling	-0.178 (7.1)	-0.182 (5.2)	-0.156 (7.3)
Employed (omitted)			
Unemployed	-0.178 (7.1)	-0.182 (5.2)	-0.156 (7.3)
Not in the labour force	0.028 (3.6)	0.036 (2.5)	0.048 (3.8)
Male (omitted)			
Female	0.041 (5.7)	0.016 (1.6)	0.024 (2.7)
Age	-0.006 (4.3)	-0.022 (12.0)	-0.018 (10.4)
Age square*100	0.009 (6.5)	0.023 (13.1)	0.018 (11.1)
Years of education	0.006 (7.6)	0.002 (0.7)	0.013 (6.9)
Ln household size	-0.001 (0.4)	-0.051 (2.9)	-0.156 (9.6)
Self-reported health	0.182 (147.8)	0.239 (40.1)	0.279 (55.2)
No children (omitted)			
One child	-0.080 (7.3)	-0.023 (1.4)	0.044 (3.0)
More than one child	-0.072 (9.2)	-0.033 (1.8)	0.079 (4.7)
Religion dummies	Yes	Yes	Yes
Region dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Adjusted R-squared	0.128	0.154	0.241
Number of observations	43,317	12,956	18,054

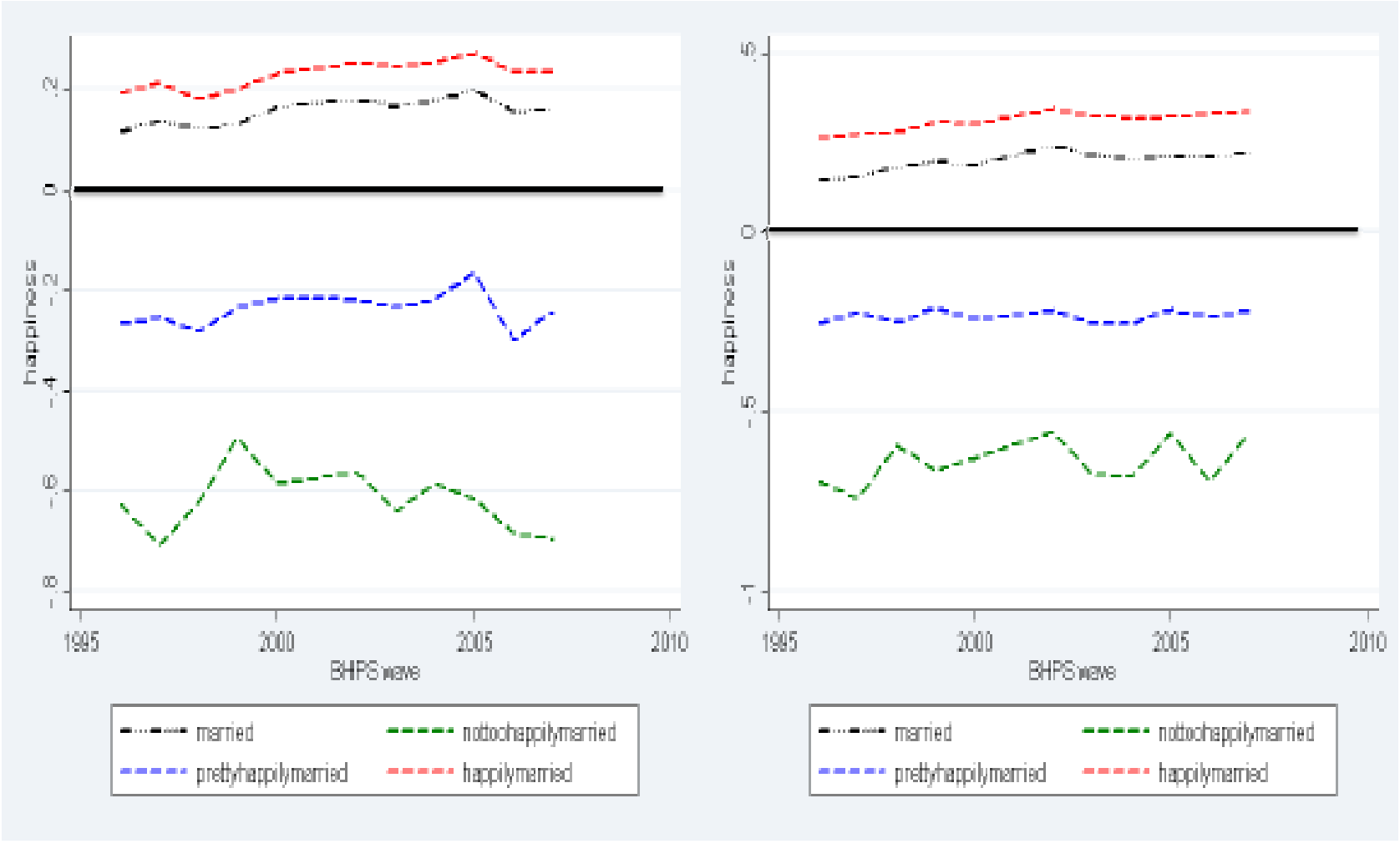
Marriage Quality
Dependent Variable: Self-reported Happiness

	OLS		
	US GSS	**BHPS**	**GSOEP**
Not too happily married	-0.476 (16.3)	-0.547 (14.7)	-0.268 (15.8)
Pretty happily married	-0.041 (2.6)	-0.177 (8.4)	0.037 (2.8)
Happily married	0.437 (41.2)	0.292 (21.3)	0.343 (26.0)
Not married (omitted)			
Ln household income	0.045 (7.6)	0.021 (2.5)	0.187 (18.0)
Rent dwelling	-0.017 (1.9)	-0.070 (5.4)	-0.051 (5.5)
Unemployed	-0.176 (6.7)	-0.162 (4.9)	-0.159 (7.8)
Not in the labour force	0.017 (2.3)	0.036 (2.6)	0.030 (2.5)
Female	0.052 (7.6)	0.032 (3.1)	0.030 (3.5)
Age	-0.004 (3.8)	-0.019 (11.4)	0.017 (10.6)
Age square*100	0.007 (5.8)	0.002 (12.7)	0.002 (12.7)
Years of education	0.004 (5.8)	0.003 (1.2)	0.011 (16.1)
Ln household size	0.012 (1.8)	-0.024 (1.4)	-0.163 (10.3)
Self-reported health	0.648 (50.8)	0.223 (38.7)	0.241 (49.9)
No children (omitted)			
One child	-0.067 (6.0)	-0.017 (1.0)	0.046 (3.3)
More than one child	-0.058 (6.6)	-0.024 (1.3)	0.088 (5.5)
Religion dummies	Yes	Yes	Yes
Region dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Adjusted R-squared	0.213	0.224	0.318
Number of observations	43,317	12,956	18,054

How much does our specification change the marriage effect?



Gender differences for BHPS



(a) BHPS/men

(b) BHPS/women

Gender Differences
Dependent Variable: Self-reported Happiness

	Baseline specification	Including marriage quality specification		
	Married dummy	Not too happily married	Pretty happily married	Happily married
US GSS:				
Male	0.259 (22.1)	-0.439 (11.8)	-0.038 (2.8)	0.429 (35.9)
Female	0.241 (10.0)	-0.549 (8.8)	-0.073 (6.1)	0.463 (44.8)
BHPS:				
Male	0.172 (7.8)	-0.623 (10.5)	-0.193 (5.9)	0.238 (11.1)
Female	0.220 (11.9)	-0.507 (10.6)	-0.178 (6.5)	0.324 (17.9)
GSOEP:				
Male	0.082 (4.9)	-0.221 (8.8)	0.047 (2.3)	0.359 (17.8)
Female	0.085 (5.2)	-0.279 (19.2)	0.042 (2.3)	0.341 (18.9)

How much does our specification change the relationship between happiness and other controls?

Variables	Baseline specification		Including marriage quality specification	
	Coefficient	t	Coefficient	t
Ln household income	No change			
Rent dwelling	No change			
Unemployment	No change			
Not in the labour force	**0.028**	**3.6**	**0.017**	**2.3**
Years of education	No change			
Ln household size	No change			
Self-reported health	**0.182**	**147.80**	**0.648**	**50.8**
One child	No change			
More than one child	**-0.072**	**9.2**	**-0.058**	**6.6**
Female	**0.041**	**5.7**	**0.052**	**7.6**
Age	No change			

Non-happiness Selected well-being Outcomes and the Role of Marriage Quality

	Baseline specification	Including marriage quality specification		
	Married dummy	Not too happily married	Pretty happily married	Happily married
US GSS:				
(1) Subjective Health	0.065 (6.2)	-0.217 (6.2)	-0.067 (5.0)	0.144 (12.6)
(2) Trust	0.006 (0.5)	-0.139 (3.1)	-0.028 (1.6)	0.023 (1.6)
BHPS:				
(7) Subjective health	0.002 (0.1)	-0.271 (4.8)	-0.178 (5.6)	0.040 (1.9)
(8) Trust	-0.006 (0.3)	-0.187 (3.1)	-0.107 (3.1)	0.002 (0.8)
(14) Alcohol and other drugs	-0.001 (1.2)	0.002 (1.5)	-0.001 (0.7)	-0.002 (2.4)
(15) Cigarettes per day	-1.338 (3.7)	0.167 (0.2)	-1.235 (2.1)	-1.535 (4.0)
(16) Concentration	0.003 (0.2)	-0.209 (6.0)	-0.062 (3.2)	0.021 (1.6)
(17) Loss of sleep	-0.046 (2.7)	0.344 (7.1)	0.123 (4.5)	-0.086 (4.9)
(18) Depressed	-0.101 (5.4)	0.554 (10.7)	0.172 (5.9)	-0.164 (8.6)
GSOEP:				
(19) Subjective health	0.003 (0.1)	-0.326 (12.9)	-0.067 (3.3)	0.163 (8.1)
(21) trust	0.040 (2.7)	-0.088 (4.1)	-0.032 (2.1)	0.009 (0.5)

Conclusion

- Using conventional econometric approaches:
- the coefficient on the marriage dummy is significant and for the US, UK and Germany is of the order of 0.251, 0.205 and 0.136 (about 8.3, 6.8 and 4.5 per cent).
- But marriage quality are: -0.476|0.437, -0.547|0.292, and -0.268|0.343. In percentage terms these sizes are: -15.87|14.57, -18.24|9.74 and -8.94|11.44 percent.
- Effects of NILF, health and children change with marriage effects
- Other measures of well-being (eg trust, health) affected by marriage quality