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Other-regarding preferences, spousal disability and happiness: Evidence from German couples

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Abstract:

This paper considers the impact of adverse health shocks that hit an individual's partner on subjective well-being. Using data on couples from the German Socio-Economic Panel for the years 1984 to 2006, I compare the losses in well-being caused by own and spousal disability using panel-regressions. I find that women and to a lesser extent men are harmed by spousal disability which is consistent with the existence of other-regarding preferences within couples. The magnitude of effects suggests that spousal disability is about one quarter to one half as harmful as individual disability with larger effects being found for women.

Keywords: disability, subjective well-being, other-regarding preferences

JEL Classification: D64, I10, J14

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The data from the German Socio-Economic Panel (SOEP) used in this paper are provided by the DIW Berlin. See http://www.diw.de for details. All analyses used Stata 10.1. Do-Files are available from the author on request.

I MOTIVATION

This paper studies the strength of other-regarding preferences using non-experimental data. Specifically, I use longitudinal data on German couples to study the effects of plausibly exogenous changes in the respective partner's health on individual life satisfaction and compare these with the effects of changes in individual health. Evidence from life satisfaction regressions suggests that women and to a lesser extent men are harmed by spousal disability which is consistent with the existence of other-regarding preferences within couples. The magnitude of effects suggests that spousal disability is about one fifth to one half as harmful as individual disability with larger effects being found for women.

In a broad sense, *other-regarding* or *social preferences* refer to situations where individual utility does not only depend on commodities and goods that are at the individual's disposal, but also on goods or the well-being of some reference group.[1] Fehr and Fischbacher (2002) provide evidence on the economic consequences of such preferences, while Fehr and Schmidt (2003) and Sobel (2005) summarize various ways to model such preferences and the (mostly experimental) evidence in favor of them.

The purpose of this paper is relatively straightforward: I study the strength of social preferences using information on subjective well-being and changes in the disability status of the respective partner within German couples using data from the German Socio-Economic Panel (GSOEP) for the years 1984 to 2006. The main idea here is rather simple: If an individual's subjective well-being drops after his or her partner becomes disabled and if we are able to rule out confounding explanations for this drop, e.g. the probably unavoidable loss of household income caused by the disability of a household member, then this drop can be interpreted as the loss of utility caused by the harm of the respective partner. Additionally, I

[1] Additionally, individual utility may depend on one's relative positions in a group, see e.g. Clark et al. (2009) for recent evidence.

provide comparisons with the loss in well-being that is caused by individual disability to help in gauging the strength of these effects.

To the best of my knowledge, this paper is the first to use subjective measures of well-being and variation of a partner's health status to study the strength of social preferences. On a practical level, the results may also be useful as a quantification of individual suffering when calculating e.g. compensating payments after accidents that led to disability.

Using the setup described above has a number of advantages in the context of this analysis. First, while it is notoriously difficult to identify an individual's reference group in many settings, it seems very likely that individuals care for the well-being of their respective partner within couples. In fact, Winkelmann (2005) and Bruhin and Winkelmann (2008) provide direct evidence that measures of subjective well-being within families are correlated and that social preferences exist within families. Secondly, the fact that disability leads to (at least partially permanent) losses in well-being has been well documented in the literature (see e.g. Ferrer-i-Carbonell and van Praag [2002], Lucas [2007], Oswald and Powdthavee [2007] and Ville et al [2001]).[2] Thirdly, changes in a partner's disability status can be plausibly assumed to be exogenous in individual life-satisfaction regressions (see Oswald and Powdthavee [2007], Wu [2001] relies on a similar argument when using heart conditions) - at least to a greater extent than other possible adverse events, e.g. unemployment, that could affect the partner's well-being. Finally, the data allows me to use changes in a partner's health status within couples while controlling for possible confounders, like the likely income loss following disability, as well as for individual unobserved heterogeneity.

The remainder of this paper is organized as follows: Section 2 presents the data and descriptive evidence. The identification strategy is outlined in section 3, results follow in section 4. Section 5 concludes.

[2] Similar evidence exists for other types of (permanent) disease, see.e.g. Groot et al. (2004) and Wu (2001).

II DATA AND DESCRIPTIVE EVIDENCE

The data come from the 1984 to 2006 waves of the German Socio-Economic Panel (SOEP, see Wagner, Frick, Schupp [2007] for a general overview), a representative longitudinal household survey of the German population provided by the DIW Berlin. Further information on the sampling design as well as additional information on the overall structure of the SOEP can be found in Haisken-DeNew and Frick (2005).

I use two measures of disability, both tied to the definition of a disabled person in German social security legislation. The first is an indicator whether an individual is considered to be severely disabled by German law. This is the case when the degree of disability, as determined by an official medical examination exceeds 50, which equals e.g. the loss of a lower arm or the loss of a hand. Individuals with a degree of disability between 30 and 50 may obtain disability status when they would otherwise be unable to find a job (see §2 SGB IX, book 9 of the German social security code). The second measure is the degree of disability which runs from 0 to 100 (in steps of 5 or 10). The conditions that have to be fulfilled for a certain degree are legally fixed and are laid down in the *Anhaltspunkte für die ärztliche Gutachtertätigkeit* (see e.g. Schillings and Wendler [2006]). About 85% of all disabilities are caused by disease, while roughly 5% are congenital, related to accidents or to war wounds respectively (see Statistisches Bundesamt [2003]). Note that changes in the disability measures observed in the sample are most likely caused by disability or accidents as congenital disabilities are fixed at birth and those related to war wounds are almost exclusively the results of World War II and are consequently fixed before the observation period.

The measure of subjective well-being is the answer to the direct question “How satisfied are you with your life, all things considered? Please answer according to the following scale: 0

means completely dissatisfied, 10 means completely satisfied." that is usually applied in the subjective well-being literature.

I restrict the sample to individuals between 18 and 75 years and keep only those observations where a partner is present and has non-missing information on his or her disability status. I also drop observations where the variation in the partner's disability status arises through changes of the respective partner. These cases could bias the estimates if e.g. a change in partner raises happiness and individuals are more likely to change partners after he or she becomes disabled. However, results are almost identical when keeping these observations. After dropping observations with missing information on any control variable, I end up with 52,072 person-year-observations from 8,778 men and with 50,951 person-year-observations from 8,725 women. Descriptive statistics for both samples can be found in table 1.

[TABLE 1 ABOUT HERE.]

Figures 1 and 2 plot the distribution of the well-being measures for men and women without a disability, for disabled individuals and for individuals with a disabled partner. Both men and women report lower levels of happiness when either they or their partner become disabled. This difference in happiness is larger for individual disability and seems also larger for women than for men. Apart from that both figures show the relatively common result that individuals are on average quite happy with their lives as the mode values of 7 and 8 in each panel indicate.

[FIGURES 1 AND 2 ABOUT HERE.]

Figure 3 plots the difference in average happiness before and after the onset of disability for individuals who became disabled (left panels) and for individuals whose partner became disabled (right panels). For most cases, we observe a decline in average happiness after the onset of disability. This decline seems somewhat stronger for individuals who became

themselves disabled but can also be observed for individuals who faced the disability of their partner.

[FIGURE 3 ABOUT HERE.]

III ESTIMATION

I consider the estimating equation

$$y_{it} = \alpha_i + \theta_t + \beta' X_{it} + \tau * D_{it} + \varepsilon_{it,} \quad (1)$$

where α_i and θ_t are individual and year fixed-effects, X_{it} contains time-varying control variables, ε_{it} is a standard error term and D_{it} is the respective measure of disability. Depending on the model D_{it} contains either a dummy variable indicating (legal) disability status (Model I), the degree of disability in a linear specification (Model II) or dummies for various degrees of disability to allow for non-linear effects (Model III). The included control variables are a set of dummies for household composition (which includes information on children), dummies for labor force status and nationality, age and age squared, years of education and work and unemployment experience. To control for changes in income that seem likely after a household member becomes disabled, I also include monthly net household income. The effect of disability on happiness, τ, is identified using (joint) changes in (own and partner's) disability status and subjective well-being within individuals. All standard errors are adjusted for clustering on the individual level.

To apply the usual within-estimator, I treat the measure of subjective well-being as metric. I also experimented with the simpler version of the Ferrer-i-Carbonell and Fritjers (2004) estimator used by Kassenboehmer and Haisken-DeNew (2009). Here, the measure of well-being is collapsed into a binary variable indicating above-average happiness using individual specific thresholds and Chamberlain's (1980) conditional logit estimator is used for estimation. Unfortunately, this model did not converge when adding time dummies. However, as the results in models without time dummies where generally identical between the

conditional logit and the within-estimator, the choice of the estimator seems relatively innocuous. This result is similar to the findings by Ferrer-i-Carbonell and Fritjers (2004) who also reported a relatively minor impact of the choice between cardinal and ordinal subjective well-being.

Another issue is the question whether disability is indeed exogenous in life-satisfaction regressions or whether there are unobserved confounders that are correlated with both subjective well-being and disability. Remember from section 2 that changes in disability status during the observation period are the results of disease or to a much lesser extent accidents, while disabilities from war wounds and congenital disabilities are likely fixed at the beginning of the observation period. Note further that we can essentially rule out biological confounders that make individuals more vulnerable to disease and intrinsically less happy as these should be captured by the fixed effects. This holds to an even stronger degree when talking about the respective partner's disability. The essential assumption needed to give τ a causal interpretation is that changes in disability status are uncorrelated with unexplained changes in well-being which seems plausible.

IV RESULTS

Consider the estimation results for men in table 2 and for women in table 3. Both tables show similar responses to the onset of individual disability. Using the simple disability dummy in Model I, I find drops in happiness in the magnitude of -0.27 to -0.28. This drop roughly equals the happiness loss associated with a decline in monthly household income by 2,700 to 2,800 € which is more than the mean income in the sample. Using a linear specification for the degree of disability the drop in happiness by a 1 point increase is estimated to be -0.0063 or -0.0072 which equals income losses by 63 or 72€. For Model III, the results show penalties that are rising with the degree of disability and that become particularly large for degrees of disability above 80. The loss of happiness caused by going from a degree of disability of 0 to

90 to 100 lies between -0.88 and -0.96 which is roughly equal to a loss in household income by 8,800 to 9,600 €.

[TABLES 2 AND 3 ABOUT HERE.]

Now compare these with the results for the respective partner's disability. Intuitively we would expect that the effects of the partner's disability on individual well-being lie somewhere between zero and the effects of individual disability. Positive effects would indicate that individuals actually enjoy adverse shocks to their partner's health, while effects greater than the effects for individual disability would suggest that individuals are harmed more by their partner's suffering than by their own which seems both unlikely.

A look at the results reveals marked differences between men and women. Men generally seem to be unaffected by all but the most extreme forms of their partner's disability. Point estimates for the disability dummy as well as for a linear increase in the degree of disability are generally small and consequently insignificant. Similarly, the point estimates for the degree of disability dummies are often small and with the exception of the highest degree of disability always insignificant. For the latter, we see a drop in happiness that is roughly equal to one quarter of the effect for the corresponding degree of own disability. The relation of these last-mentioned effects generally fits the results by Winkelmann (2005) who estimated the correlation of well-being between spouses to be 0.2.

The results for women stand in stark contrast to those for men as large and significantly negative effects are found in all models. Specifically, I find a drop in subjective well-being of -0.14 using the simple disability dummy while the effect in the linear specification using the degree of disability is found to be -0.0032. The latter results seem to be driven by the huge losses in well-being associated with the higher levels of the partner's disability as can be seen from the dummy specification in Model III. The effects of the partner's disability lie roughly between one third and one half of the effects of individual disability.

Taken together, the results suggest that the well-being of women and to some extent men is harmed by the suffering of their partner which is consistent with the existence of other-regarding preferences within couples. The magnitude of the (significant) results is broadly in line with previous evidence by Winkelmann (2005) and suggests that the loss of well-being caused by a permanent adverse health shock to an individual's partner is between one quarter and one half of the corresponding loss by the same health shock to the respective individual. Additionally, the results imply that men and women react very differently to adverse health shocks that hit their respective partners despite similar reactions to adverse shocks to their own health.

While these results suggest gender-specific differences in the strength of other-regarding preferences, they could simply be the results of the decline in economic opportunities the household faces as one of its members suffers an adverse health shock. The latter effect could in principle be stronger for women if they are economically more dependent on their partner than men and hence lose relatively more by his disability and possible inability to work. However, there are two reasons that make this explanation unlikely. First, all estimates control for net household income and labor force status which should capture the largest part of a possible economic decline. Secondly, if the drop in subjective well-being due to the partner's disability is caused by a decline in economic opportunities and if this decline differs between men and women, the drop in well-being caused by *individual* disability should also differ between men and women which is clearly not the case.

V CONCLUSION

This paper demonstrated that individuals suffer losses in subjective well-being when their respective partner is hit by a permanent adverse health shock, specifically disability. This finding is consistent with the existence of other-regarding preferences within couples. Using longitudinal panel data on German couples from the Socio-Economic Panel for the years 1984

to 2006, I compared the losses in subjective well-being caused by the onset of own disability with the losses caused by the disability of the respective partner while controlling for economic conditions and unobserved heterogeneity. The results indicate that women and to a lesser extent men suffer losses in subjective well-being from the disability of their partner. The magnitude of results suggests that the disability of a partner is about one quarter to one half as harmful as individual disability. This finding is broadly in line with previous findings by Winkelmann (2005) who estimated the correlations of subjective well-being among spouses to be 0.2. Furthermore, the results of this paper suggest that women are harmed much more by their partner's disability, while showing similar reactions to individual disability.

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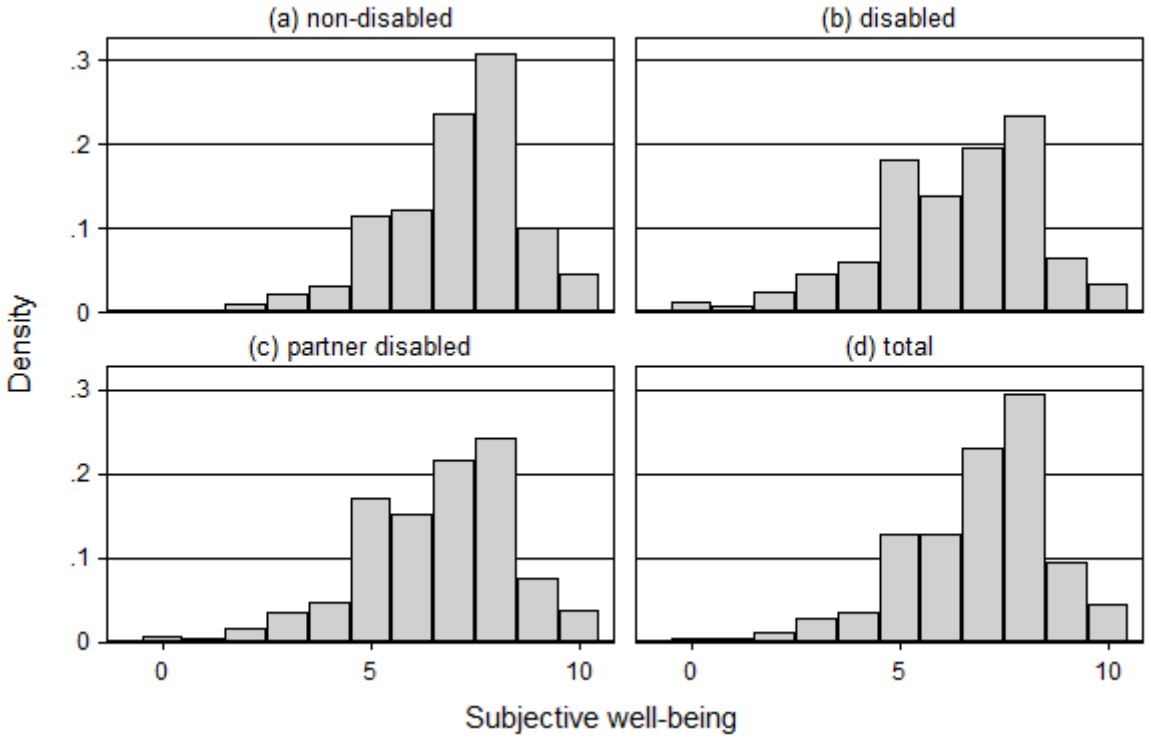
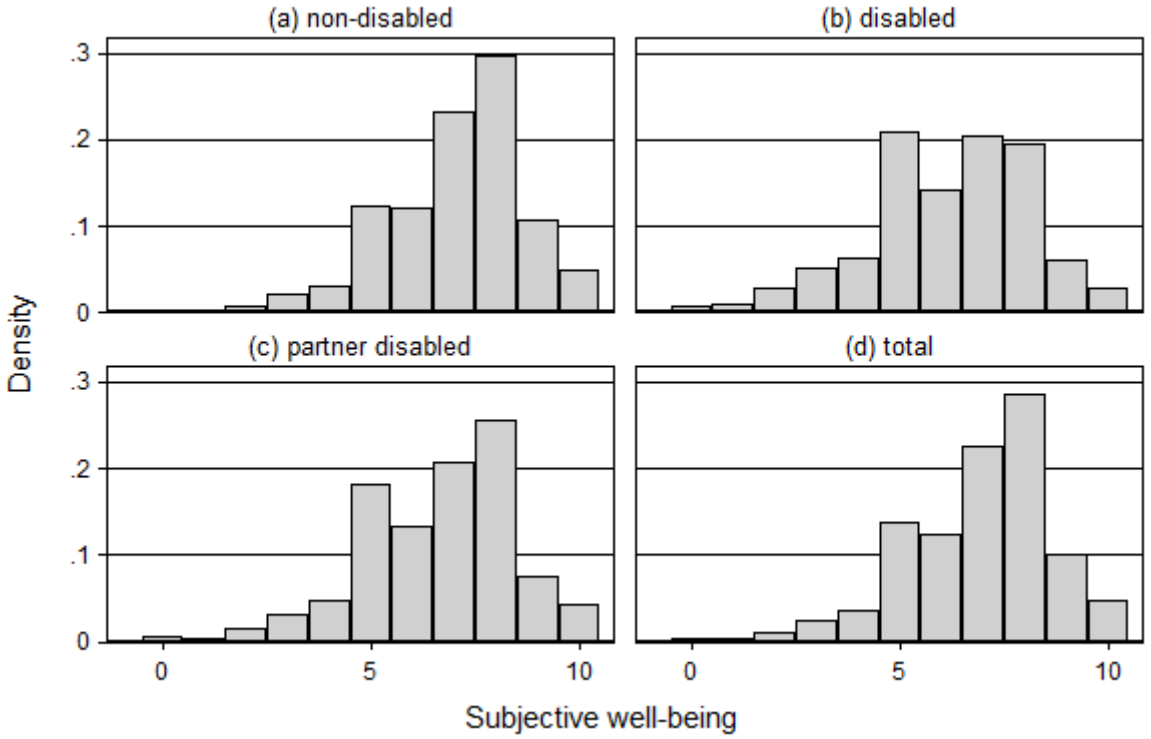
Figure 1
Distribution of subjective well-being measure by disability, men



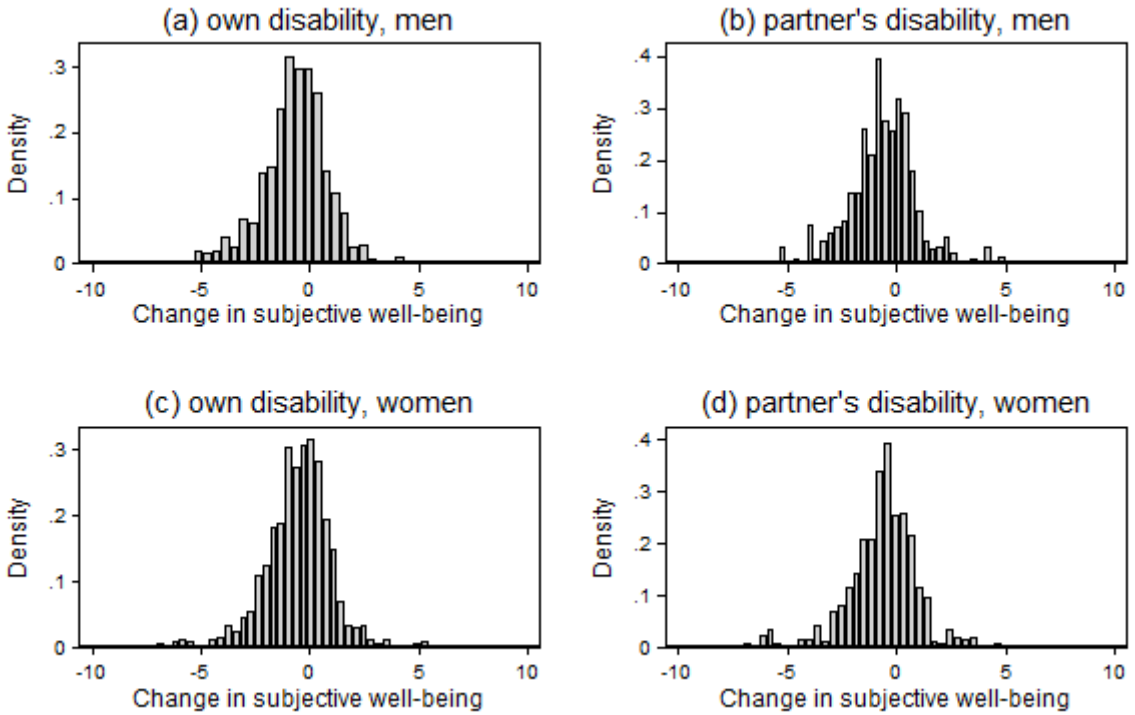
Source: German Socio-Economic Panel, pooled over years 1984 to 2006

Figure 2
Distribution of subjective well-being measure by disability, women



Source: German Socio-Economic Panel, pooled over years 1984 to 2006

Figure 3
Changes in average subjective well-being before and after own or partner's disability



Source: German Socio-Economic Panel, pooled over years 1984 to 2006, only observations with a change in individual disability (panels a and c) or partner's disability (panels b and d)

Table 1
Descriptive Statistics

	Men			Women		
	Mean	**Std. Dev**	**Std. Dev (within)**	**Mean**	**Std. Dev**	**Std. Dev (within)**
Subjective well-being (0 to 10)	6.90	1.76	1.15	6.91	1.76	1.16
Own disability						
Disabled (1 = yes)	.138	.345	.151	.095	.293	.128
Degree of disability (index from 0 to 100)	7.01	19.67	8.35	5.05	17.39	7.36
Degree of disability 0 (1 = yes)	.866	.341	.148	.909	.288	.126
Degree of disability 1 to 30 (1 = yes)	.013	.114	.067	.006	.074	.045
Degree of disability 30 to 49 (1 = yes)eg3	.038	.192	.104	.023	.149	.082
Degree of disability 50 to 59 (1 = yes)g4	.032	.1767	.096	.025	.157	.087
Degree of disability 60 to 69 (1 = yes)	.018	.133	.074	.013	.114	.064
Degree of disability 70 to 79 (1 = yes)	.009	.095	.056	.005	.071	.043
Degree of disability 80 to 89 (1 = yes)	.009	.093	.055	.007	.083	.048
Degree of disability 90 to 100 (1 = yes)	.014	.119	.065	.012	.110	.057
Partner's disability						
Disabled (1 = yes)	.092	.289	.130	.142	.349	.149
Degree of disability (index from 0 to 100)	4.92	17.18	7.40	7.27	20.08	8.36
Degree of disability 0 (1 = yes)	.912	.284	.128	.862	.345	.147
Degree of disability 1 to 30 (1 = yes)	.005	.073	.045	.013	.115	.067
Degree of disability 30 to 49 (1 = yes)eg3	.022	.147	.083	.039	.194	.103
Degree of disability 50 to 59 (1 = yes)g4	.024	.154	.087	.033	.178	.097
Degree of disability 60 to 69 (1 = yes)	.013	.112	.063	.018	.133	.073
Degree of disability 70 to 79 (1 = yes)	.005	.073	.043	.010	.099	.056

Degree of disability 80 to 89 (1 = yes)	.007	.083	.050	.009	.095	.0555
Degree of disability 90 to 100 (1 = yes)	.012	.108	.057	.016	.124	.067
Control variables						
Age (years)	47.98	13.10	3.24	45.52	13.24	3.20
Years of schooling	11.82	2.81	.46	11.43	2.61	.424
Work experience (years)	24.11	11.99	2.61	13.35	11.53	1.71
Unemployment experience (years)	.69	1.66	.64	.77	1.72	.63
Monthly household net income (€)	2487.81	1610.43	775.29	2489.54	1622.24	765.36
Couple without children (1 = yes)	.376	.484	.201	.384	.486	.207
Single parent (1 = yes)	.001	.028	.017	.001	.026	.017
Couple with children younger than 16 (1 = yes)	.318	.466	.254	.313	.464	.251
Couple with children older than 16 (1 = yes)	.167	.373	.245	.166	.372	.244
Couple with children younger and older than 16 (1 = yes)	.010	.299	.216	.098	.297	.214
Multiple generation household (1 = yes)	.027	.163	.093	.027	.163	.093
Other combination (1 = yes)	.011	.104	.063	.011	.103	.059
German nationality (1 = yes)	.752	.432	.073	.774	.418	.072
Married (1 = yes)	.900	.300	.114	.898	.303	.118
Out of the labor force (1 = yes)	.076	.265	.193	.218	.413	.252
Retired (1 = yes)	.113	.317	.168	.093	.290	.148
Unemployed (1 = yes)	.075	.263	.204	.074	.262	.202
Other labor force status (1 = yes)	.143	.350	.200	.170.	375	.249
No. of. Obs.	52,072				50,951	
No. of Individuals	8,778				8,725	

Table 2

Own and partner's disability and reported subjective well-being, male sample, FE-estimates

	Model I: Disability dummy		**Model II: Degree of disability, linear specification**		**Model III: Degree of disability, dummy specification**	
	Own disab.	Partner's disab.	Own disab.	Partner's disab.	Own disab.	Partner's disab.
Disabled (1 = yes)	-0.2774***	0.0319				
	(0.0604)	(0.0614)				
Degree of disability (index from 0 to 100)			-0.0072***	-0.0005		
			(0.0012)	(0.0011)		
Degree of disability <30 (1 = yes)					0.0167	-0.0152
					(0.0974)	(0.1384)
Degree of disability 30 to 49 (1 = yes)					-0.1992*	0.0353
					(0.0836)	(0.1005)
Degree of disability 50 to 59 (1 = yes)					-0.2649**	0.0235
					(0.0909)	(0.0800)
Degree of disability 60 to 69 (1 = yes)					-0.2656*	0.1214
					(0.1176)	(0.1333)
Degree of disability 70 to 79 (1 = yes)					-0.4062**	-0.0413
					(0.1546)	(0.1619)
Degree of disability 80 to 89 (1 = yes)					-0.4310**	0.2021
					(0.1643)	(0.1342)
Degree of disability 90 to 100 (1 = yes)					-0.9614***	-0.2703*
					(0.1676)	(0.1369)
Age (years)	-0.1039***	-0.1061***	-0.0992***	-0.1069***	-0.0978***	-0.1081***
	(0.0239)	(0.0237)	(0.0239)	(0.0237)	(0.0236)	(0.0237)
Age (squared)	0.0005**	0.0004**	0.0005**	0.0005**	0.0005**	0.0005**

	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Years of schooling	-0.0397*	-0.0395*	-0.0380*	-0.0395*	-0.0376*	-0.0396*
	(0.0175)	(0.0176)	(0.0173)	(0.0176)	(0.0174)	(0.0176)
Work experience (years)	0.0126	0.0153	0.0085	0.0154	0.0074	0.0162
	(0.0121)	(0.0119)	(0.0121)	(0.0119)	(0.0119)	(0.0119)
Unemployment experience (years)	0.0324+	0.0318	0.0279	0.0323+	0.0258	0.0337+
	(0.0196)	(0.0195)	(0.0193)	(0.0194)	(0.0192)	(0.0193)
Monthly household net income (€)	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
German nationality (1 = yes)	-0.0935	-0.0967	-0.0951	-0.0969	-0.0983	-0.0976
	(0.1055)	(0.1065)	(0.1055)	(0.1064)	(0.1060)	(0.1065)
Married (1 = yes)	-0.0098	-0.0090	-0.0096	-0.0078	-0.0079	-0.0074
	(0.0561)	(0.0564)	(0.0560)	(0.0564)	(0.0560)	(0.0564)
Out of the labor force (1 = yes)	-0.3524***	-0.3892***	-0.3283***	-0.3882***	-0.3334***	-0.3869***
	(0.0483)	(0.0485)	(0.0479)	(0.0485)	(0.0478)	(0.0484)
Retired (1 = yes)	0.0910	0.0880	0.0940	0.0884	0.0950	0.0923
	(0.0590)	(0.0589)	(0.0588)	(0.0589)	(0.0586)	(0.0589)
Unemployed (1 = yes)	-0.8055***	-0.8197***	-0.8027***	-0.8192***	-0.8056***	-0.8184***
	(0.0436)	(0.0436)	(0.0434)	(0.0435)	(0.0435)	(0.0436)
Other labor force status (1 = yes)	-0.3718***	-0.3843***	-0.3651***	-0.3839***	-0.3676***	-0.3833***
	(0.0486)	(0.0486)	(0.0484)	(0.0486)	(0.0484)	(0.0486)
Constant	10.8722***	10.9619***	10.7422***	10.9673***	10.7143***	11.0052***
	(0.6596)	(0.6585)	(0.6589)	(0.6588)	(0.6566)	(0.6570)
7 Household type dummies	(included)	(included)	(included)	(included)	(included)	(included)
Year dummies	(included)	(included)	(included)	(included)	(included)	(included)
No. of observations	52,072	52,072	52,072	52,072	52,072	52,072

No. of individuals	8,778	8,778	8,778	8,778	8,778	8,778
Sig.(Model)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Coefficients, standard errors that are adjusted for clustering on the person level in parentheses. ***/**/*/+ denote significance on the .1%, 1%, 5% and 10% level.

Table 3
Own and partner's disability and reported subjective well-being, female sample

	Model I: Disability dummy		**Model II: Degree of disability, linear specification**		**Model III: Degree of disability, dummy specification**	
	Own disab.	Partner's disab.	Own disab.	Partner's disab.	Own disab.	Partner's disab.
Disabled (1 = yes)	-0.2655***	-0.1413*				
	(0.0699)	(0.0556)				
Degree of disability (index from 0 to 100)			-0.0063***	-0.0032**		
			(0.0014)	(0.0010)		
Degree of disability <30 (1 = yes)					-0.1085	-0.1189
					(0.1566)	(0.1000)
Degree of disability 30 to 49 (1 = yes)					-0.1287	-0.1963*
					(0.1035)	(0.0827)
Degree of disability 50 to 59 (1 = yes)					-0.2518**	-0.0277
					(0.0968)	(0.0854)
Degree of disability 60 to 69 (1 = yes)					-0.2344+	-0.1480
					(0.1355)	(0.1164)
Degree of disability 70 to 79 (1 = yes)					-0.0755	-0.0691
					(0.1833)	(0.1488)
Degree of disability 80 to 89 (1 = yes)					-0.4504**	-0.2185
					(0.1494)	(0.1536)
Degree of disability 90 to 100 (1 = yes)					-0.8827***	-0.4018***
					(0.2015)	(0.1203)
Age (years)	-0.0662***	-0.0653***	-0.0667***	-0.0665***	-0.0662***	-0.0663***
	(0.0160)	(0.0160)	(0.0160)	(0.0161)	(0.0160)	(0.0160)

Age (squared)	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Years of schooling	0.0181	0.0169	0.0179	0.0175	0.0175	0.0172
	(0.0187)	(0.0188)	(0.0186)	(0.0188)	(0.0185)	(0.0188)
Work experience (years)	0.0135+	0.0135+	0.0126+	0.0135+	0.0123+	0.0136+
	(0.0072)	(0.0072)	(0.0071)	(0.0072)	(0.0071)	(0.0071)
Unemployment experience (years)	0.0135	0.0132	0.0117	0.0129	0.0107	0.0133
	(0.0153)	(0.0153)	(0.0152)	(0.0153)	(0.0152)	(0.0153)
Monthly household net income (€)	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
German nationality (1 = yes)	-0.0650	-0.0602	-0.0679	-0.0597	-0.0709	-0.0640
	(0.1119)	(0.1118)	(0.1119)	(0.1118)	(0.1115)	(0.1113)
Married (1 = yes)	0.0137	0.0163	0.0141	0.0168	0.0134	0.0162
	(0.0606)	(0.0604)	(0.0606)	(0.0603)	(0.0606)	(0.0603)
Out of the labor force (1 = yes)	-0.0588+	-0.0731*	-0.0502	-0.0727*	-0.0513	-0.0733*
	(0.0327)	(0.0328)	(0.0326)	(0.0328)	(0.0326)	(0.0328)
Retired (1 = yes)	-0.0323	-0.0353	-0.0309	-0.0356	-0.0276	-0.0354
	(0.0591)	(0.0591)	(0.0589)	(0.0591)	(0.0589)	(0.0591)
Unemployed (1 = yes)	-0.4947***	-0.4980***	-0.4944***	-0.4977***	-0.4954***	-0.4980***
	(0.0376)	(0.0375)	(0.0375)	(0.0375)	(0.0375)	(0.0375)
Other labor force status (1 = yes)	-0.0508	-0.0568+	-0.0478	-0.0565+	-0.0485	-0.0562+
	(0.0329)	(0.0328)	(0.0329)	(0.0328)	(0.0329)	(0.0328)
Constant	9.1140***	9.1298***	9.1158***	9.1432***	9.1149***	9.1423***
	(0.6505)	(0.6502)	(0.6497)	(0.6507)	(0.6489)	(0.6505)
7 Household type dummies	(included)	(included)	(included)	(included)	(included)	(included)
Year dummies	(included)	(included)	(included)	(included)	(included)	(included)

No. of observations	50,951	50,951	50,951	50,951	50,951	50,951
No. of individuals	8,725	8,725	8,725	8,725	8,725	8,725
Sig.(Model)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Coefficients, standard errors that are adjusted for clustering on the person level in parentheses. ***/**/*/+ denote significance on the .1%, 1%, 5% and 10% level.

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