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Gender roles and selection mechanisms across contexts: a comparative analysis of the relationship between unemployment, self-perceived health and gender

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Supplementary material

Table. S1 Number of observations and respondents. Italy and Sweden, EUSILC 2004-2015 and Germany, SOEP 1995-2017

	Italy			Sweden		
	Men	Women	Total	Men	Women	Total
N observations	67,451	51,824	119,275	9,610	9,601	19,211
N respondents	33,087	26,550	59,637	4,453	4,479	8,932
	West Germany			East Germany		
N observations	75,580	85,691	161,271	23,410	25,879	49,289
N respondents	13,847	15,388	29,235	3,731	4,040	7,771
	Old Cohort (West)			Young Cohort (West)		
N observations	23,273	24,909	48,182	52,307	60,782	113,089
N respondents	3,853	4,011	7,864	9,994	11,377	21,371

Table. S2 Description of missing as percentage (%) of sample

	IT		SW		DE_West		DE_Est		DE_Old cohort		DE_Young cohort	
	M	W	M	W	M	W	M	W	M	W	M	W
Unemployed*	7.10	31.65	5.93	10.94	2.32	7,92	2.22	7.51	0.51	1.30	3.04	10.32
Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education	0.10	0.09	0.12	0.17	2.14	2.22	1.74	1.30	1.22	1.67	2.51	2.42
Log Income	0.00	0.00	0.00	0.00	1.54	0.95	1.22	0.73	0.03	0.02	2.15	1.28
Nr. of kids	0.00	0.00	0.00	0.00	0.15	0.13	0.13	0.12	0.03	0.02	0.20	0.17
Partner economic status	0.12	0.08	0.85	0.93	11.34	8.11	8.79	6.02	5.10	4.79	13.84	9.31
N	110,503	115,348	15,143	15,862	111,755	128,049	32,656	36,529	31,951	34,040	79,804	94,009
*Missings on Unemployed are Inactive, other Non-working (e.g. in maternity leave) or working people (e.g. Ausbildung) who do not enter our definition of Employed/Unemployed. Then, they are not non-response missings.												

Table. S3 Average Marginal Effect (AME) of unemployment on the probability of Bad Health. Dynamic random-effects probit. Model 3 pooled by gender with interaction effect. SOEP 1995-2017

Context comparison 2	East Germany			West Germany		
	Men	Women	Diff. M-W	Men	Women	Diff. M-W
	4.83***	4.87***	NS	6.21***	3.87***	**

Context comparison 3	Younger cohort			Older cohort		
	Men	Women	Diff. M-W	Men	Women	Diff. M-W
	5.04***	3.31***	NS	8.75***	5.19***	*

Adjusted for age groups, educational level, marital status, number of children in household, household income, previous health status, year dummies, initial condition of the outcome and initial condition and unit-averages of selected time-varying covariates.

Note: column “Diff. M-W” tests statistical significance of gender differences via interaction. NS not significant, + p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table. S4 Descriptive statistics

	Italy				Sweden			
	Men		Women		Men		Women	
	Employed (60,993)	Unemployed (6,458)	Employed (45,053)	Unemployed (6,771)	Employed (9,250)	Unemployed (360)	Employed (9,185)	Unemployed (416)
N observations								
Bad Health (mean (Std.Dev))	0.17 (0.38)	0.24 (0.43)	0.19 (0.39)	0.24 (0.42)	0.11 (0.32)	0.26 (0.44)	0.13 (0.34)	0.34 (0.47)
No partner (%)	32.53	60.67	34.91	47.73	26.40	51.67	23.29	38.22
Employed partner	39.60	16.38	57.83	41.44	64.50	35.00	72.17	52.88
Unemployed partner	4.50	6.40	2.67	6.84	2.10	2.78	1.99	6.02
Inactive partner	23.37	16.55	4.60	3.99	7.01	10.56	2.55	2.88
No kids (%)	53.81	73.52	55.59	59.13	45.55	67.22	43.26	50.96
1 kid	24.48	13.81	25.65	24.19	21.03	16.11	23.32	25.00
2 kids	18.36	9.99	16.33	14.41	24.95	10.00	25.13	14.42
3 or more kids	3.35	2.68	2.43	2.26	8.48	6.67	8.30	9.62
Household income (log) (Mean (Std.dev))	10.40 (0.76)	9.50 (2.10)	10.45 (0.72)	9.79 (1.62)	10.59 (0.85)	9.96 (1.37)	10.67 (0.71)	10.24 (0.90)
Age (mean, (Std. Dev))	41.84 (8.00)	38.81 (8.82)	41.49 (7.97)	38.41 (8.27)	40.94 (8.18)	41.56 (8.85)	41.63 (8.20)	40.66 (8.88)
Primary Education (%)	36.79	50.79	25.60	38.38	4.92	15.14	4.92	15.14
Secondary Education	48.03	38.88	50.83	44.09	47.22	54.09	47.22	54.09
Tertiary Education	15.18	10.33	23.57	17.53	47.86	30.77	47.86	30.77

Table. S4 Continue

	West-Germany				East Germany			
	Men		Women		Men		Women	
	Employed (68,659)	Unemployed (6,921)	Employed (65,571)	Unemployed (20,120)	Employed (19,795)	Unemployed (3,615)	Employed (20,462)	Unemployed (5,417)
N observations								
Bad Health (mean (Std.Dev))	0.40 (0.50)	0.61 (0.49)	0.43 (0.49)	0.53 (0.50)	0.41 (0.49)	0.60 (0.49)	0.42 (0.49)	0.61 (0.49)
No partner (%)	19.61	36.11	26.01	18.90	20.57	37.90	22.69	30.90
Employed partner	60.40	36.08	67.67	67.85	66.16	35.21	68.29	48.35
Unemployed partner	19.22	27.15	5.59	12.41	12.60	26..22	8.45	19.77
Inactive partner	0.77	0.66	0.73	0.84	0.68	0.66	0.57	0.98
No kids (%)	55.18	65.06	58.65	40.80	62.84	73.11	61.48	55.33
1 kid	20.28	14.97	21.96	23.28	21.85	15.49	24.33	23.52
2 kids	18.33	12.61	15.47	23.20	12.41	8.13	11.91	14.88
3 or more kids	6.22	7.35	3.92	12.72	2.89	3.26	2.28	6.28
Household income (log) (Mean (Std.dev))	10.57 (0.52)	9.94 (0.88)	10.54 (0.56)	10.28 (0.66)	10.38 (0.51)	9.80 (0.74)	10.38 (0.50)	9.95 (0.63)
Age (mean, (Std. Dev))	41.82 (7.93)	41.94(9.00)	41.66 (7.91)	41.41 (8.15)	41.89 (8.03)	42.64 (8.72)	41.87 (7.92)	42.01 (8.52)
Primary Education (%)	39.21	60.90	20.03	50.48	12.32	37.26	6.95	28.24
Secondary Education	34.89	27.70	48.66	38.30	62.16	54.22	57.07	58.13
Tertiary Education	25.90	11.40	22.32	11.22	25.52	8.52	35.98	13.62

Table. S4 Continue

	West Germany Old cohort				West Germany Young cohort			
	Men		Women		Men		Women	
	Employed (20,962)	Unemployed (2,311)	Employed (18,195)	Unemployed (6,714)	Employed (47,697)	Unemployed (4,610)	Employed (47,376)	Unemployed (13,406)
N observations								
Bad Health (mean (Std.Dev))	0.49 (0.50)	0.74 (0.44)	0.51 (0.50)	0.63 (0.48)	0.36 (0.48)	0.55 (0.50)	0.39 (0.49)	0.48 (0.50)
No partner (%)	13.75	24.32	20.41	14.18	22.19	42.02	28.16	21.26
Employed partner	63.51	46.73	68.50	67.68	59.03	30.74	67.36	67.94
Unemployed partner	22.16	28.43	9.86	16.68	17.93	26.51	3.95	19.27
Inactive partner	0.58	0.52	1.23	1.46	0.86	0.74	0.53	0.53
No kids (%)	69.91	77.24	82.51	71.64	48.70	58.96	49.49	25.35
1 kid	17.97	13.85	12.62	16.59	21.30	15.53	25.54	26.63
2 kids	9.18	6.97	4.22	7.82	22.35	15.44	19.79	30.90
3 or more kids	2.95	1.95	0.66	3.95	7.66	10.07	5.18	17.12
Household income (log) (Mean (Std.dev))	10.60 (0.50)	10.01 (0.78)	10.60 (0.55)	10.30 (0.69)	10.56 (0.53)	9.91 (0.93)	10.52 (0.56)	10.27 (0.64)
Age (mean, (Std. Dev))	48.44 (4.90)	49.91 (4.68)	48.54 (4.76)	48.52 (5.12)	38.92 (7.23)	37.95 (7.93)	39.02 (7.25)	37.85 (6.96)
Primary Education (%)	46.07	68.41	42.21	60.83	36.19	57.14	23.96	45.30
Secondary Education	27.99	21.07	37.92	30.25	37.93	31.02	52.78	42.32
Tertiary Education	25.94	10.51	19.86	8.92	25.88	11.84	23.26	12.38

Figure S1. Bivariate association between (Un)employment and Bad Health by context and by gender.

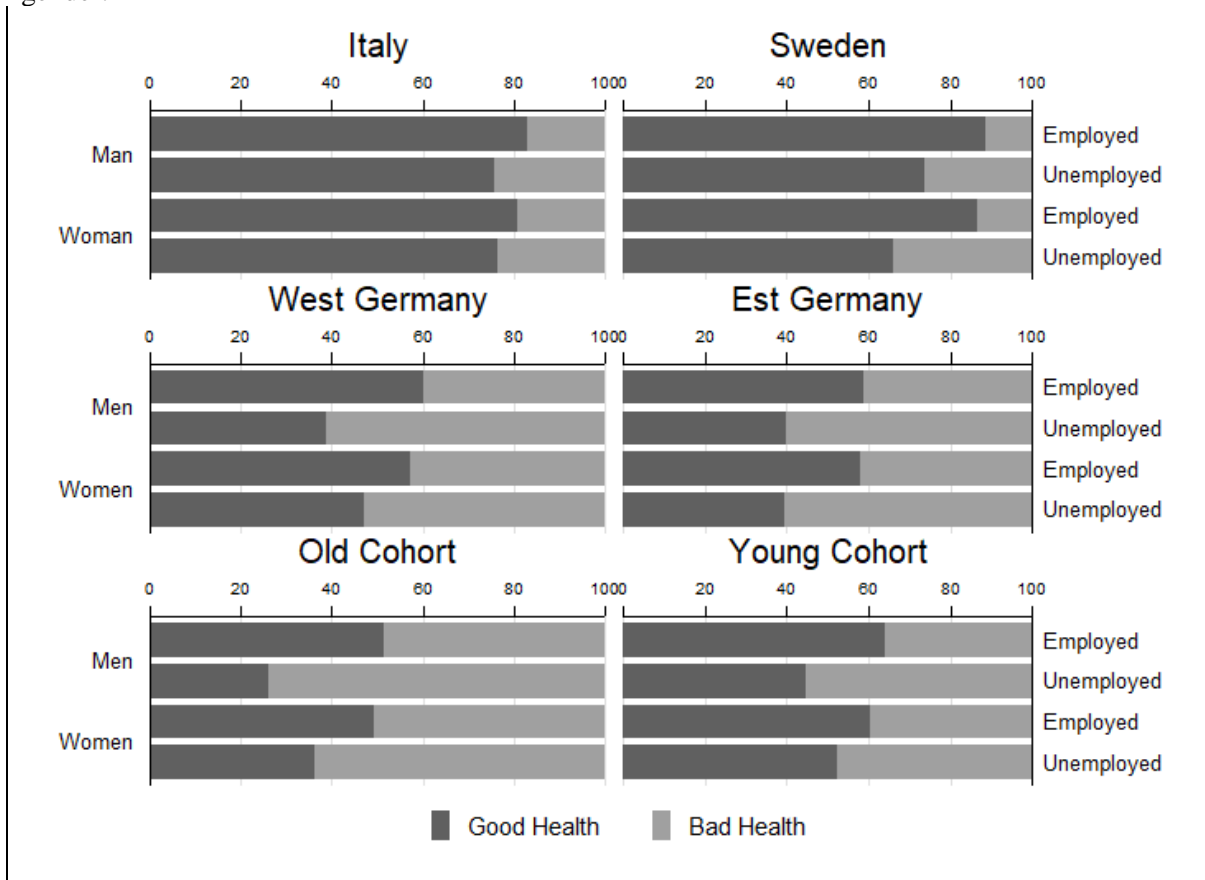


Table. S5 Predicted Probabilities of Bad Health for employed individuals. Dynamic random-effects probit. Model 2 pooled by gender with interaction effect. EU-SILC 2004-2015 and SOEP 1995-2017

	Egalitarian contexts		Traditional contexts	
	Sweden		Italy	
Context comparison 1	Men	Women	Men	Women
	0.080***	0.090***	0.135***	0.158***
Context comparison 2	East Germany		West Germany	
	Men	Women	Men	Women
	0.419***	0.439***	0.406***	0.424***
Context comparison 3	Young cohort		Old cohort	
	Men	Women	Men	Women
	0.357***	0.383***	0.524***	0.520***

Adjusted for age groups, educational level, marital status, number of children in hh, hh income, previous health status, dummy year, and initial conditions for all covariates.

+ p<0.1, * p<0.05, ** p<0.01, *** p<0.001

Table. S6 Bad health. Dynamic random-effects probit. Model 3 pooled by gender with interaction effect (probit coefficients). EUSILC 2004-2015.

	Sweden	Italy
Unemployed	0.426***	0.267***
Woman	0.117**	0.150***
Unemployed # Woman	-0.128	-0.130***
Year of survey (ref. 2005)		
2006	0.021	0.083***
2007	-0.004	-0.293***
2008	-0.034	-0.247***
2009	-0.137	-0.234***
2010	-0.043	-0.370***
2011	-0.037	-0.193***
2012	-0.004	-0.512***
2013	-0.033	-0.350***
2014	0.093	-0.486***
2015	0.087	-0.269***
Age	0.053	0.040**
Age square	-0.001*	-0.000
Level of education (ref. ISCED 3/4)		
ISCED 0/2	0.118	0.184***
ISCED 5/6	-0.258***	-0.172***
Household income (log)	-0.027	-0.011
Partner economic status (ref. not present)	-0.100	0.024
Employed	-0.112	0.062
Unemployed	0.010	-0.003
Inactive		
N. of children (ref. no children)	0.015	-0.009
1	-0.136	-0.059
2	-0.333	-0.196
3 or more	-0.100	0.024
<i>Initial condition (time 0)</i>		
Health	1.932***	1.316***
Age	0.054	0.039*
Household income	-0.035	-0.002
Partner economic status (ref. not present)		
Employed	0.096	0.068
Unemployed	0.027	-0.070
Inactive	0.095	0.001
N. of children (ref. no children)		
1	0.006	-0.022
2	0.287	-0.050
3 or more	0.260	-0.161
<i>Within-unit average</i>		
Partner economic status (ref. not present)		
Employed	-0.112	-0.139
Unemployed	0.379	0.225
Inactive	0.010	-0.029
N. of children (ref. no children)		
1	-0.033	0.003
2	-0.161	0.067
3 or more	0.036	0.366
Age	-0.025	-0.043*

Household income	-0.079	-0.063**
Health at t-1	0.300***	0.413***
Constant	-2.445***	-2.143***
Var(u_i)	0.985***	0.682***
Observations	19,211	119,275

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table. S7 Bad health. Dynamic random-effects probit. Model 3 pooled by gender with interaction effect (probit coefficients). SOEP 1995-2017.

	West Germany	East Germany	Old cohort	Young cohort
Unemployed	0.231***	0.184***	0.288***	0.201***
Woman	0.064***	0.068*	-0.015	0.092***
Unemployed # Woman	-0.090**	-0.002	-0.110+	-0.077*
Year of survey (ref. 1995)				
1996	0.038	-0.022	0.046	0.014
1997	-0.035	-0.081	-0.003	-0.104
1998	-0.060 ⁺	-0.129*	-0.031	-0.123*
1999	-0.030	-0.018	-0.042	-0.046
2000	0.027	-0.041	0.061	-0.035
2001	-0.070*	-0.111*	-0.052	-0.109*
2002	0.050	-0.124*	0.071	0.008
2003	-0.046	-0.153**	-0.066	-0.052
2004	-0.054	-0.175**	-0.043	-0.088
2005	0.034	-0.160**	0.060	-0.008
2006	0.060	-0.225***	0.090	0.019
2007	0.000	-0.193**	0.005	-0.025
2008	-0.014	-0.252***	-0.053	-0.019
2009	0.046	-0.218***	0.026	0.035
2010	0.027	-0.271***	-0.069	0.044
2011	0.040	-0.208***	0.119	0.016
2012	0.003	-0.303***	-0.075	0.007
2013	0.024	-0.175**	-0.005	0.026
2014	0.046	-0.296***	-0.099	0.059
2015	0.047	-0.251***	-0.010	0.059
2016	0.047	-0.276***		0.062
2017	-0.017	-0.343***		0.003
Age	0.039***	0.056***	0.051	0.047***
Age square	0.000	0.000	0.000	-0.000
Level of education (ref. ISCED 3/4)				
ISCED 0/2	0.097***	0.062	0.104***	0.090***
ISCED 5/6	-0.171***	-0.076*	-0.103**	-0.195***
Household income (log)	-0.047**	-0.071*	-0.048	-0.045*
Partner economic status (ref. not present)				
Employed	0.051*	0.150**	0.086	0.043
Unemployed	0.054+	0.203***	0.091	0.042
Inactive	0.101	0.318*	0.142	0.081
N. of children (ref. no children)				
1	0.0160	-0.003	0.058	0.004
2	0.024	-0.021	0.023	0.022
3 or more	-0.006	-0.087	0.076	-0.021
Initial condition (time 0)				
Health	1.181***	1.150***	1.162***	1.186***
Age	-0.023***	-0.022***	-0.038***	-0.020***
Household income	0.058**	0.086*	0.137**	0.032
Partner economic status (ref. not present)				
Employed	0.041	0.013	0.030	0.036
Unemployed	0.024	-0.012	-0.084	0.075
Inactive	0.127	0.066	0.153	0.111

N. of children (ref. no children)				
1	0.008	0.090*	0.039	-0.031
2	0.016	0.130*	-0.068	0.008
3 or more	0.030	0.206*	-0.078	0.031
Within-unit average				
Partner economic status (ref. not present)				
Employed	0.015	-0.084	0.112	-0.014
Unemployed	0.045	-0.063	0.174	-0.009
Inactive	-0.122	-0.122	-0.093	-0.083
N. of children (ref. no children)				
1	-0.017	-0.040	-0.103	0.030
2	-0.072	-0.111	0.068	-0.070
3 or more	-0.105	0.023	-0.224	-0.088
Age	0.003	-0.007	0.009	0.002
Household income	-0.211***	-0.195*	-0.401***	-0.151***
Health at t-1	0.507***	0.566***	0.543***	0.489***
Constant	0.060	-0.178	0.981	-0.454
Var(u_i)	0.590	0.685	0.721	0.535
Observations	161,271	49,289	48,182	113,089

⁺ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table. S8 Sweden: Bad health. Dynamic random-effects probit. Models separated by gender (probit coefficients). EUSILC 2004-2015.

	Men			Women		
	Model 0	Model 1	Model 2	Model 0	Model 1	Model 2
Unemployed	0.763***	0.589***	0.425***	0.754***	0.623***	0.281*
Year of survey (ref. 2005)						
2006	0.014	0.020	-0.010	0.000	0.022	0.048
2007	-0.022	0.015	-0.050	-0.043	0.032	0.046
2008	-0.102	-0.040	-0.106	-0.082	-0.005	0.039
2009	-0.299*	-0.285*	-0.258*	-0.213	-0.164	-0.023
2010	-0.275*	-0.263*	-0.180	-0.083	-0.042	0.087
2011	-0.194	-0.158	-0.106	-0.206	-0.124	0.028
2012	-0.146	-0.084	-0.052	-0.233	-0.113	0.049
2013	-0.261	-0.179	-0.128	-0.202	-0.063	0.055
2014	-0.068	0.017	0.066	-0.129	-0.003	0.125
2015	-0.083	-0.003	-0.014	-0.036	0.103	0.189
Age		0.086	0.020		0.156**	0.085
Age square		-0.001	-0.000		-0.002*	-0.001*
Level of education (ref. ISCED 3/4)						
ISCED 0/2		0.231	0.054		0.425**	0.202
ISCED 5/6		-0.451***	-0.205**		-0.515***	-0.306***
Household income (log)		-0.177***	-0.057		-0.121**	0.016
Partner economic status (ref. not present)						
Employed		-0.263**	-0.110		-0.324***	-0.151
Unemployed		-0.006	-0.270		0.044	0.028
Inactive		-0.021	-0.087		0.196	0.148
N. of children (ref. no children)						
1		0.032	0.138		-0.091	-0.015
2		-0.028	0.036		-0.153	-0.321
3 or more		-0.299	-0.424		-0.001	-0.130
<i>Initial condition (time 0)</i>						
Health			1.833***			2.017***
Age			0.024			0.071
Household income			-0.029			-0.043
Partner economic status (ref. not present)						
Employed			0.141		0.066	0.172
Unemployed			-0.078		0.199	-0.069
Inactive			0.067		0.329	0.084
N. of children (ref. no children)						
1			-0.144		0.150	-0.168
2			0.310		0.273	0.339
3 or more			0.388		0.096	0.437
<i>Within-unit average</i>						
Partner economic status (ref. not present)						
Employed			-0.279		0.026	-0.350
Unemployed			0.700		0.087	0.703
Inactive			0.034		-0.270	0.024
N. of children (ref. no children)						

children)						
1			0.213		-0.272	0.269
2			-0.312		-0.009	-0.325
3 or more			-0.037		0.083	-0.065
Age			-0.003			-0.030
Household income			-0.063			-0.100
Health at t-1			0.304**			0.302**
Constant	-2.161***	-2.423*	-1.537	-2.022***	-3.937***	-3.355***
Var(u_i)	2.645	2.344	0.975	2.859	2.592	0.987
Observations		9,610			9,601	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table. S9 Italy: Bad health. Dynamic random-effects probit. Models separated by gender (probit coefficients). EUSILC 2004-2015.

	Men			Women		
	Model 0	Model 1	Model 2	Model 0	Model 1	Model 2
Unemployed	0.434***	0.447***	0.268***	0.279***	0.300***	0.130***
Year of survey (ref. 2005)						
2006	0.072*	0.065*	0.082**	0.058	0.055	0.085*
2007	-0.329***	-0.352***	-0.289***	-0.359***	-0.375***	-0.297***
2008	-0.355***	-0.399***	-0.239***	-0.395***	-0.426***	-0.256***
2009	-0.358***	-0.417***	-0.230***	-0.384***	-0.433***	-0.238***
2010	-0.525***	-0.585***	-0.361***	-0.557***	-0.613***	-0.382***
2011	-0.338***	-0.422***	-0.151***	-0.443***	-0.543***	-0.249***
2012	-0.731***	-0.812***	-0.514***	-0.733***	-0.837***	-0.509***
2013	-0.611***	-0.696***	-0.344***	-0.588***	-0.713***	-0.353***
2014	0.729***	-0.809***	-0.465***	-0.750***	-0.870***	-0.511***
2015	-0.451***	-0.547***	-0.203***	-0.586***	-0.709***	-0.359***
Age		0.048**	0.021		0.113***	0.066**
Age square		0.000	0.000		-0.001**	-0.000
Level of education (ref. ISCED 3/4)						
ISCED 0/2		0.344***	0.171***		0.365***	0.205***
ISCED 5/6		-0.331***	-0.173***		-0.329***	-0.173***
Household income (log)		-0.069***	-0.014		-0.087***	-0.002
Partner economic status (ref. not present)						
Employed		-0.049	0.030		-0.121***	-0.103
Unemployed		0.172***	0.051		0.233***	0.073
Inactive		-0.021	-0.004		-0.053	-0.142
N. of children (ref. no children)						
1		-0.025	0.046		-0.066*	-0.095
2		-0.047	0.061		-0.212***	-0.265*
3 or more		-0.026	0.022		-0.279**	-0.542*
<i>Initial condition (time 0)</i>						
Health			1.154***			1.512***
Age			0.028			0.052*
Household income			-0.009			0.018
Partner economic status (ref. not present)						
Employed			0.096			0.027
Unemployed			-0.008			-0.176
Inactive			0.061			-0.161
N. of children (ref. no children)						
1			0.011			-0.077
2			-0.070			-0.017
3 or more			-0.171			-0.144
<i>Within-unit average</i>						
Partner economic status (ref. not present)						
Employed			-0.200			-0.032
Unemployed			0.185			0.286
Inactive			-0.107			0.210

N. of children (ref. no children)						
1			-0.103			0.151
2			-0.009			0.184
3 or more			0.217			0.662
Age			-0.030			-0.059*
Household income			-0.048			-0.096*
Health at t-1			0.469***			0.356***
Constant	-1.294***	-2.860***	-1.818***	-1.203***	-3.705***	-2.458***
Var(u_i)	2.024	1.694	0.574	2.435	2.043	0.815
Observations		67,451			51,824	

Table. S10 East Germany: Bad health. Dynamic random-effects probit. Models separated by gender (probit coefficients). SOEP:1995-2017.

	Men			Women		
	Model 0	Model 1	Model 2	Model 0	Model 1	Model 2
Unemployed	0.2995***	0.245***	0.181***	0.275***	0.243***	0.182***
Year of survey (ref. 1995)						
1996	0.075	0.565	0.048	-0.059	-0.062	-0.084
1997	0.016	-0.019	-0.053	-0.056	-0.080	-0.106
1998	0.054	-0.028	-0.039	-0.127	-0.184*	-0.210**
1999	0.194**	0.076	0.045	0.049	-0.042	-0.071
2000	0.223*	0.073	0.000	0.097	-0.013	-0.071
2001	0.168***	-0.023	-0.122	0.132	-0.021	-0.095
2002	0.329***	0.100	0.002	0.039	-0.146	-0.229***
2003	0.279***	0.008	-0.108	0.121	-0.099	-0.183*
2004	0.329***	0.006	-0.123	0.141*	-0.113	-0.213**
2005	0.459***	0.090	-0.048	0.135	-0.154*	-0.255***
2006	0.341***	-0.076	-0.244*	0.226**	-0.097	-0.197*
2007	0.494***	0.039	-0.116	0.231**	-0.121	-0.251***
2008	0.443***	-0.050	0.230**	0.251***	-0.132	-0.260***
2009	0.591***	0.054	-0.121	0.260***	-0.148	-0.291***
2010	0.523***	-0.050	-0.256**	0.318***	-0.130	-0.273***
2011	0.673***	-0.009	-0.182*	0.327***	-0.087	-0.219**
2012	0.602***	-0.089	-0.275**	0.282***	-0.164*	-0.317***
2013	0.674***	0.028	-0.144	0.447***	-0.031	-0.188*
2014	0.602***	-0.085	-0.283**	0.402***	-0.108	-0.295***
2015	0.674***	-0.039	-0.240*	0.489***	-0.055	-0.248**
2016	0.624***	-0.114	-0.327***	0.553***	-0.140	-0.225*
2017	0.556***	-0.018	-0.360***	0.524***	-0.072	-0.305***
Age		0.040*	0.048**		0.063***	0.060***
Age square		0.000	0.000		-0.000	-0.000
Level of education (ref. ISCED 3/4)						
ISCED 0/2		0.164*	0.067		0.299***	0.053
ISCED 5/6		-0.362***	-0.145**		-0.193***	-0.017
Household income (log)		-0.183***	-0.145***		-0.155***	-0.003
Partner economic status (ref. not present)						
Employed		0.133*	0.222***		0.061	0.081

Unemployed	0.181**	0.292***		0.138*	0.124	
Inactive	0.372*	0.441**		0.127	0.195	
N. of children (ref. no children)						
1	-0.018	0.005		-0.015	-0.014	
2	-0.043	0.016		-0.066	-0.055	
3 or more	-0.125	-0.147		-0.021	-0.046	
<i>Initial condition (time 0)</i>						
Health		1.191***			1.116***	
Age		-0.031***			-0.014*	
Household income		0.077			0.100	
Partner economic status (ref. not present)						
Employed		0.088			-0.024	
Unemployed		0.157			-0.210	
Inactive		0.104			0.042	
N. of children (ref. no children)						
1		0.049			0.110	
2		0.057			0.173*	
3 or more		0.221			0.178	
<i>Within-unit average</i>						
Partner economic status (ref. not present)						
Employed		-0.229			0.051	
Unemployed		-0.275			0.210	
Inactive		-0.037			-0.014	
N. of children (ref. no children)						
1		-0.025			-0.066	
2		-0.162			-0.080	
3 or more		-0.025			0.062	
Age		-0.002			-0.011	
Household income		-0.038			-0.354***	
Health at t-1			0.618***		0.521***	
Constant	-0.764***	-0.629	-0.855	-0.458***	-0.880	0.621
Var(u_i)	2.121	1.708	0.710	1.814	1.510	0.661
Observations		23,410			25,879	

Table. S11 *West-Germany: Bad health. Dynamic random-effects probit. Models separated by gender (probit coefficients). SOEP:1995-2017.*

	Men			Women		
	Model 0	Model 1	Model 2	Model 0	Model 1	Model 2
Unemployed	0.382***	0.340***	0.260***	0.238***	0.201***	0.132***
Year of survey (ref. 1995)						
1996	0.042	0.038	0.029	0.033	0.033	0.044
1997	-0.047	-0.072	-0.092*	0.030	0.013	0.014
1998	-0.028	-0.084	-0.089	0.007	-0.033	-0.034
1999	0.063	-0.029	-0.028	0.025	-0.045	-0.034
2000	0.156***	0.036	0.006	0.130**	0.050	0.042
2001	0.159***	-0.014	-0.053	0.030	-0.085*	-0.092*
2002	0.265***	0.069	0.022	0.212***	0.081	0.069
2003	0.191***	-0.037	-0.094*	0.178***	0.028	-0.009
2004	0.212***	-0.051	-0.098*	0.187***	0.003	-0.021
2005	0.373***	0.078	0.021	0.283***	0.071	0.041
2006	0.470***	0.139**	0.052	0.346***	0.105*	0.062
2007	0.398***	0.028	-0.064	0.377***	0.112*	0.053
2008	0.463***	0.057	-0.029	0.348***	0.056	-0.004
2009	0.547***	0.110*	0.015	0.443***	0.120**	0.068
2010	0.534***	0.060	-0.044	0.500***	0.150**	0.084
2011	0.552***	0.090	-0.001	0.431***	0.122**	0.070
2012	0.535***	0.039	-0.046	0.421***	0.087*	0.042
2013	0.598***	0.070	-0.017	0.466***	0.109*	0.057
2014	0.573***	0.031	-0.053	0.555***	0.181***	0.123**
2015	0.649***	0.068	-0.036	0.598***	0.191***	0.114*
2016	0.667***	0.067	-0.038	0.619***	0.198***	0.115*
2017	0.631***	0.023	-0.088	0.583***	0.142**	0.046
Age		0.048***	0.053***		0.033***	0.029**
Age square		0.000	0.000		0.000	0.000
Level of education (ref. ISCED 3/4)						
ISCED 0/2		0.179***	0.072***		0.263***	0.109***
ISCED 5/6		-0.399***	-0.212***		-0.320***	-0.146***
Household income (log)		-0.117***	-0.044		-0.195***	-0.050*
Partner economic status (ref. not present)						
Employed		0.029	0.004		0.043	0.074*
Unemployed		-0.022	-0.019		0.148***	0.120**
Inactive		-0.060	0.010		0.102	0.179*
N. of children (ref. no children)						
1		0.018	0.047		-0.019	-0.008
2		0.066**	0.104***		-0.089***	-0.044
3 or more		-0.014	0.060		-0.137***	-0.061
<i>Initial condition (time 0)</i>						
Health			1.238***			1.127***
Age			-0.024***			-0.022***
Household income			0.046			0.072**
Partner economic status (ref. not present)						
Employed			0.042			0.039
Unemployed			0.024			0.0194
Inactive			0.079			0.176

N. of children (ref. no children)						
1			0.010			0.006
2			0.024			0.013
3 or more			0.027			0.041
<i>Within-unit average</i>						
Partner economic status (ref. not present)						
Employed			0.107			-0.007
Unemployed			0.097			0.100
Inactive			-0.096			-0.143
N. of children (ref. no children)						
1			-0.103			0.030
2			-0.156**			-0.014
3 or more			-0.149			-0.079
Age			-0.003			0.007
Household income			-0.135**			-0.286***
Health at t-1			0.536***			0.481***
Constant	-0.840***	-1.398***	-0.768**	-0.643***	0.0199	0.871**
Var(u_i)	1.875	1.546	0.599	1.683	1.377	0.580
Observations		75,580			85,691	

Table. S12 *Old-cohort*: Bad health. Dynamic random-effects probit. Models separated by gender (probit coefficients). West-Germany, SOEP:1995-2017.

	Men			Women		
	Model 0	Model 1	Model 2	Model 0	Model 1	Model 2
Unemployed	0.536***	0.396***	0.295***	0.346***	0.261***	0.182***
Year of survey (ref. 1995)						
1996	0.076	0.063	0.054	0.058	0.034	0.035
1997	0.008	-0.036	-0.060	0.134	0.067	0.046
1998	0.062	-0.025	-0.029	0.120	0.005	-0.038
1999	0.130*	0.008	0.014	0.088	-0.082	-0.103
2000	0.270***	0.118	0.086	0.277	0.068	0.026
2001	0.249***	0.063	0.030	0.151	-0.100	-0.140*
2002	0.393***	0.171	0.123	0.355	0.060	0.009
2003	0.224***	-0.015	-0.070	0.320	-0.005	-0.079
2004	0.338***	0.048	0.016	0.350	-0.042	-0.115
2005	0.586***	0.254	0.197**	0.450	0.003	-0.080
2006	0.684***	0.302	0.205**	0.570	0.065	-0.034
2007	0.622***	0.200	0.103	0.570	0.015	-0.104
2008	0.695***	0.224	0.136	0.482	-0.128	-0.245**
2009	0.781***	0.262	0.163	0.642	-0.027	-0.129
2010	0.735***	0.167	0.068	0.607	-0.109	-0.226*
2011	0.957***	0.342	0.267**	0.860	0.093	-0.051
2012	0.762***	0.123	0.042	0.696	-0.108	-0.220*
2013	0.883***	0.203	0.132	0.767	-0.075	-0.170
2014	0.799***	0.067	0.012	0.749	-0.158	-0.246*
2015	1.036***	0.266	0.182	0.821	-0.138	-0.230

2016	-	-	-	-		
2017	-	-	-	-		
Age		0.031	0.039		0.023	0.047
Age square		0.000	0.000		0.000	0.000
Level of education (ref. ISCED 3/4)						
ISCED 0/2		0.176**	0.067		0.347***	0.118**
ISCED 5/6		-0.430***	-0.201***		-0.192**	-0.016
Household income (log)		-0.226***	-0.090*		-0.215***	-0.025
Partner economic status (ref. not present)						
Employed		0.026	-0.002		0.140*	0.142
Unemployed		0.021	-0.012		0.213***	0.161*
Inactive		-0.032	0.054		0.143	0.199
N. of children (ref. no children)						
1		0.072	0.117**		-0.027	0.006
2		0.081	0.142*		-0.178**	-0.101
3 or more		0.183	0.321**		-0.341**	-0.228
<i>Initial condition (time 0)</i>						
Health			1.21***			1.105***
Age			-0.039***			-0.040***
Household income			0.158*			0.138*
Partner economic status (ref. not present)						
Employed			-0.020			0.038
Unemployed			-0.206			0.089
Inactive			0.134			0.143
N. of children (ref. no children)						
1			0.100			-0.007
2			-0.011			-0.114
3 or more			-0.058			-0.057
<i>Within-unit average</i>						
Partner economic status (ref. not present)						
Employed			0.209			0.082
Unemployed			0.356*			0.013
Inactive			-0.260			-0.091
N. of children (ref. no children)						0.244
1			-0.235*			0.034
2			-0.105			0.244
3 or more			-0.265			-0.343
Age			0.009			0.011
Household income			-0.305**			-0.484***
Health at t-1			0.578***			0.510***
Constant	-0.341***	0.022	0.581	-0.224	0.033	1.621
Var(u_i)	2.067	1.890	0.739	1.925	1.682	0.670
Observations		23,241			24,866	

Table. S13 *Young-cohort: Bad health. Dynamic random-effects probit. Models separated by gender (probit coefficients). West-Germany, SOEP:1995-2017.*

	Men			Women		
	Model 0	Model 1	Model 2	Model 0	Model 1	Model 2
Unemployed	0.327***	0.317***	0.243***	0.210***	0.181***	0.112***
Year of survey (ref. 1995)						
1996	0.040	-0.000	-0.016	0.048	0.019	0.043
1997	-0.044	-0.125	-0.146	-0.035	-0.086	-0.061
1998	-0.041	-0.167*	-0.178*	-0.034	-0.112	-0.071
1999	0.101	-0.071	-0.081	0.054	-0.052	-0.011
2000	0.163*	-0.050	-0.079	0.103	-0.019	0.000
2001	0.174*	-0.087	-0.130	0.032	-0.124	-0.095
2002	0.280***	-0.018	-0.065	0.221***	0.042	0.067
2003	0.290***	-0.050	-0.107	0.194**	-0.009	-0.011
2004	0.260***	-0.120	-0.176*	0.213**	-0.026	-0.009
2005	0.387***	-0.035	-0.089	0.321***	0.048	0.061
2006	0.505***	0.040	-0.040	0.371***	0.065	0.066
2007	0.447***	-0.067	-0.155*	0.432***	0.097	0.086
2008	0.523***	-0.031	-0.115	0.444***	0.078	0.063
2009	0.627***	0.036	-0.055	0.521***	0.121	0.112
2010	0.637***	0.002	-0.100	0.618***	0.183*	0.164
2011	0.669***	0.009	-0.083	0.548***	0.102	0.100
2012	0.700***	-0.003	-0.0920	0.577***	0.092	0.094
2013	0.766***	0.024	-0.067	0.628***	0.114	0.110
2014	0.767***	-0.004	-0.0939	0.735***	0.197**	0.187
2015	0.839***	0.028	-0.081	0.778***	0.205**	0.180
2016	0.873***	0.031	-0.077	0.806***	0.211**	0.183
2017	0.854***	-0.003	-0.120	0.775***	0.157*	0.119
Age		0.073***	0.075***		0.033*	0.027*
Age square		-0.000	-0.000		0.000	0.000
Level of education (ref. ISCED 3/4)						
ISCED 0/2		0.180***	0.071**		0.216***	0.097***
ISCED 5/6		-0.390***	-0.216***		-0.358***	-0.185***
Household income (log)		-0.081***	-0.022		-0.187***	-0.060*
Partner economic status (ref. not present)						
Employed		0.031	0.001		0.008	0.060
Unemployed		-0.042	-0.028		0.124**	0.120*
Inactive		-0.079	-0.012		0.099	0.196
N. of children (ref. no children)						
1		-0.005	0.019		-0.019	-0.006
2		0.050	0.084*		-0.068**	-0.028
3 or more		-0.060	-0.009		-0.105**	-0.032
<i>Initial condition (time 0)</i>						
Health			1.236***			1.122***
Age			-0.018***			-0.021***
Household income			0.021			0.047
Partner economic status (ref. not present)						
Employed			0.024			0.049
Unemployed			0.092			0.022
Inactive			0.041			0.192

N. of children (ref. no children)						
1			-0.065			-0.012
2			-0.003			0.015
3 or more			0.007			0.050
<i>Within-unit average</i>						
Partner economic status (ref. not present)						
Employed			0.111			-0.058
Unemployed			0.024			0.110
Inactive			-0.041			-0.152
N. of children (ref. no children)						
1			-0.015			0.046
2			-0.127			-0.029
3 or more			-0.076			-0.095
Age			-0.009			0.011*
Household income			-0.101*			-0.212***
Health at t-1			0.517***			0.469***
Constant	-1.197***	-2.092***	-1.376	-0.955***	0.060	0.469
Var(u_i)	1.588	1.392	0.534	1.444	1.257	0.531
Observations		52,163			60,658	

Table S14 AME of unemployment on Bad Health and Predicted Probabilities of Bad Health for employed individuals. Dynamic random-effects probit. Model 1-2 separated by gender.

Sweden				
	Model 1		Model 2	
	Men	Women	Men	Women
AME	4.42***	6.09**	4.29***	2.92*
Employed	2.09***	2.81***	7.25***	9.93***
Italy				
AME	7.27***	4.80***	4.59***	2.02***
Employed	8.02***	9.11***	13.8***	15.5***
East Germany				
AME	8.38***	8.77***	5.22***	5.50***
Employed	39.30***	43.10***	41.90***	44.00**
West Germany				
AME	11.80***	7.18***	7.41***	3.92***
Employed	36.20***	41.00***	39.50***	43.30***
Old-cohort				
AME	14.20***	9.40***	8.61***	5.37***
Employed	49.70***	52.60***	50.50***	53.70***
Young- cohort				
AME	10.80***	6.40***	6.84***	3.33***
Employed	30.70***	36.00***	34.90***	39.10***

Model 1: adjusted with observables

Model 2: adjusted with health selection

* p<0.05, ** p<0.01, *** p<0.001

Table. S15 Probit coefficients from KHB models. M2-M1 (total selection)

Sweden						
	Men			Women		
	Coef.	Std.	P-value	Coef.	Std.	P-value
Reduced	0.610	0.120	0.000	0.753	0.111	0.000
Full	0.425	0.120	0.000	0.281	0.112	0.012
Diff	0.185	0.048	0.000	0.473	0.058	0.000

Italy						
	Men			Women		
	Coef.	Std.	P-value	Coef.	Std.	P-value
Reduced	0.384	0.029	0.000	0.240	0.031	0.000
Full	0.268	0.029	0.000	0.130	0.031	0.000
Diff	0.116	0.009	0.000	0.109	0.012	0.000

East Germany						
	Men			Women		
	Coef.	Std.	P-value	Coef.	Std.	P-value
Reduced	0.394	0.039	0.000	0.406	0.033	0.000
Full	0.181	0.039	0.000	0.181	0.033	0.000
Diff	0.213	0.167	0.202	0.225	0.152	0.139

West Germany						
	Men			Women		
	Coef.	Std.	P-value	Coef.	Std.	P-value
Reduced	0.523	0.026	0.000	0.255	0.017	0.000
Full	0.260	0.026	0.000	0.132	0.017	0.000
Diff	0.264	0.102	0.010	0.123	0.093	0.184

Young cohort						
	Men			Women		
	Coef.	Std.	P-value	Coef.	Std.	P-value
Reduced	0.492	0.031	0.000	0.234	0.020	0.000
Full	0.243	0.031	0.000	0.112	0.020	0.000
Diff	0.249	0.146	0.089	0.122	0.141	0.389

Old cohort						
	Men			Women		
	Coef.	Std.	P-value	Coef.	Std.	P-value
Reduced	0.611	0.050	0.000	0.310	0.033	0.000
Full	0.295	0.050	0.000	0.181	0.033	0.000
Diff	0.316	0.180	0.079	0.129	0.163	0.431

Robustness Check

Table S16 AME of unemployment on Bad Health. Dynamic random-effects probit. Model 2 separated by gender without control for Degree of Urbanization and Model 2b with control for Degree of Urbanization. EU-SILC 2004-2015 Sweden and Italy.

	Men		Women	
	Model 2	Model 2b	Model 2	Model 2b
Sweden	4.29***	4.30***	2.92*	2.94*
Italy	4.59***	4.64***	2.02***	2.02***
Adjusted for age groups, educational level, marital status, number of children in household, household income, previous health status, year dummies, initial condition of the outcome and initial condition and unit-averages of selected time-varying covariates.				
* p<0.05, ** p<0.01, *** p<0.001				