

UNIVERSITÀ DEGLI STUDI DI SIENA

**QUADERNI DEL DIPARTIMENTO
DI ECONOMIA POLITICA**

**Stefano Bartolini
Ennio Bilancini
Francesco Sarracino**

Social Capital Predicts Happiness: World-Wide
Evidence from Time Series

n. 579 – Ottobre 2009



Abstract - This paper provides evidence that in the long run the trends of social capital are good predictors of the trends of subjective well-being. The indicator of social capital that we apply is the membership of individuals in groups or associations. All countries for which there exist comparable long time series on social capital are considered (14 developed and 5 developing countries). Correlations are calculated using the same bivariate analysis applied by Easterlin and Angelescu (2009) to investigate the long run relationship between subjective well-being and GDP per-capita. Finally, several robustness checks of Easterlin and Angelescu's results are performed, substantially confirming that subjective well-being and GDP per-capita are unrelated in the long term.

Keywords: subjective well-being, happiness, social capital, Easterlin paradox, growth.

JEL classification: A13, D60, I31, O10, Z13

Stefano Bartolini, Department of Economics, University of Siena, Piazza San Francesco 7, 53100 Siena, Italy

Ennio Bilancini, Department of Economics, University of Modena and Reggio Emilia, Viale Berengario, 51, 43012 Modena, Italy

Francesco Sarracino, Department of Population and employment, Ceps/Instead, 44 rue Emile Mark, L-4620 Differdange, Luxembourg - francesco.sarracino@ceps.lu

1 Introduction

It is now well documented that the trends of subjective-well-being (SWB) show a substantial heterogeneity across countries (Stevenson and Wolfers, 2008; Inglehart, 2009). In particular, considering the last thirty years and more we know that SWB has increased in some countries and decreased in others, varying at different paces.

What does predict such international differences? Economic growth does not. Income is related to SWB in cross-sectional data but not in long time series. Evidence based on microdata show that individuals with higher income than others report, at any given point in time, higher levels of SWB. Moreover, cross-country data show that countries with higher average income report higher levels of SWB (Deaton, 2008; Stevenson and Wolfers, 2008; Easterlin and Angelescu, 2009; Inglehart, 2009; Frey and Stutzer, 2002). However, in long time series GDP per-capita and SWB are unrelated (Easterlin and Angelescu, 2009): on average people do not become happier when a country's income increases.

This contrast between the evidence from cross-sections and from long time series is the essence of the so-called Easterlin paradox. This paradox is certainly one fundamental reason for the scientific (and mediatic) popularity of the happiness literature. However, time series deserve a special attention since they seem more likely than cross-sections to provide an answer to “what people (...) want to know (...): How far is general income growth (beyond income levels already achieved) likely to increase average happiness? This is a question about **time series** relationships” (Layard et al., 2009, p. 1).

The most comprehensive studies on the relationship between the time series of SWB and GDP has been provided by Stevenson and Wolfers (2008) and Easterlin and Angelescu (2009). These two influential papers use the same approach based on bivariate analysis, but they reach contrasting conclusions. Income and SWB are positively and significantly related over time for Stevenson and Wolfers (2008), while they are unrelated for Easterlin and Angelescu (2009). The reason for this difference lies in the time span. Stevenson and Wolfers' sample includes countries with long and short time series. In particular, the positive and significant relation that they estimate seems to be entirely generated by the inclusion of a small sample of transition countries with short time series. Easterlin and Angelescu (2009) show that if these transition countries are excluded from the sample - thus focusing the analysis on the long term - the Easterlin paradox re-emerges.

Since GDP growth does *not* predict the observed international differences in long term trends of well-being, what does predict them? There is a number of potential candidates all of which would require a detailed analysis of long time series, e.g., social tolerance, political freedom, religiosity, health (Inglehart, 2009; Deaton, 2008). Social capital is another serious candidate (SC). Several papers have documented that SC is strongly correlated with SWB (see the pioneering studies of Helliwell (2001, 2006); Helliwell and Putnam (2004); see also Bruni and Stanca (2008); Becchetti et al. (2008)). Becchetti et al. (2009) provided a causal analysis showing that SC has a strong effect on SWB. Moreover, even the positive association between religiosity and SWB may be due to SC, as suggested by Lim and Putnam (2009), which find that religious people are more satisfied with their lives because they regularly attend religious service and build social networks in their congregations.

It has also been recently shown that the long term evolution of SC is a powerful predictor of SWB, in US and Germany. Bartolini et al. (2008), using micro data from the US General Social Survey for the period 1975-2004, show that a large portion of the declining happiness trend in the US is predicted by the decline in SC. The predictive potential of SC for SWB trends is confirmed by the analysis of micro data from the German Socio-Economic Panel (Bartolini et al., 2009).

In this paper we extend the available evidence on the relationship between SWB and SC by investigating their long term correlation. To this aim we use the same bivariate technique which has been applied to analyze the relationship between SWB and GDP growth (Stevenson and Wolfers, 2008; Easterlin and Angelescu, 2009). We find that the trends of SC are strong predictors of the long term trends of SWB in the sample of all developed and developing countries for which there exist long run time series of SC. Thus, the same type of analysis that has drawn to the conclusion that SWB is unrelated to per-capita GDP in the long run also documents that long term changes in well-being are strongly related to long term changes in SC. In addition, we replicate in our sample the analysis of Easterlin and Angelescu (2009), substantially confirming their results.

The paper is organized as follows. Section 2 discusses concepts and data, while section 3 presents the econometric strategy. Section 4 reports our results whose robustness is checked in section 5. Section 6 concludes.

2 Concepts and data

We use two measures of SWB. The first is reported happiness, measured by the answers to the question: “Taking all things together, would you say you are: very happy, quite happy, not very happy, not at all happy?” The second is overall life satisfaction, the response to the question “All things considered, how satisfied are you with your life as a whole these days?”

Social capital is a composite concept encompassing very different measures, such as trust among individuals, trust towards institutions, social interactions, civic engagement, electoral participation, etc. In this paper we focus on the social interactions component of SC, which several contributions showed to be related with SWB (see Helliwell (2001, 2006); Bruni and Stanca (2008); Becchetti et al. (2008); Powdthavee (2008); Bartolini et al. (2008))¹.

In providing a long term analysis of social interactions one faces a number of severe limitations in the available data. First of all, there exists only one dataset that provides comparable data on social interactions for a large number of countries, namely the World Values Survey (WVS). This is a wide compilation of surveys collected in more than 80 countries representing more than 80% of the world’s population. It collects information on sociocultural and political change observed on a sample of 300 to 4,000 individuals per country. In particular, the database provides informations on subjective beliefs about politics, the economy, religious, social and ethical topics, familial and social relationships as well as individual well-being. Data have been collected in five waves (1980 - 82; 1990 - 91; 1995 - 97; 1999 - 2001 and 2005 - 2008) for more than 300,000 observations covering about 25 years.

¹descriptive statistics are available from tab.4 to tab.7 in the Appendix

The WVS provides data on social interactions (time spent with relatives, friends neighbors, etc.) and membership in groups or associations for many developed and developing countries. Unfortunately, long time series on social interactions are generally unavailable. For this reason we are forced to focus on membership in groups and associations. However, time series on membership are limited in time and space. Moreover, data are mainly concentrated in rich countries. Very few countries (8) provide at least 20-years long series and they are all developed. In order to obtain a reasonably large sample of countries (19) which includes at least a few developing countries (5), the analysis must be extended to countries with time series of 15 years length. Furthermore, no transition country can be considered. Detailed descriptive statistics on memberships by year and by country are provided in the Appendix (see tables from tab.8 to tab.21).

A further limitation is that WVS data are collected only once every about five years. Therefore, the risk that the trend of the variables is affected by wave-specific biases due to shocks and/or measurement errors, is relatively high in the WVS compared to surveys where waves are carried out more frequently. This risk is particularly high when the available time series are constituted only by two observations. In order to reduce this risk, we included in our sample only those countries for which at least three observations of both SWB and group membership are available. Furthermore, in order to avoid the risk of over-weighting the role of small countries in our results, we excluded countries with a very small population size.²

Summarizing, our sample is defined according to the following three criteria: i) countries that have a time series at least 15-years long; ii) countries with at least three observations available; iii) countries with a reasonably large population size.

Finally, we note that, while in the case of the relationship between GDP growth and SWB the sample is limited by the availability of SWB long time series, in our case the binding constraint is the length of SC time series. Therefore, our sample turns out to be considerably reduced compared to the one used by Easterlin and Angelescu (2009). We consider a total of 19 countries (14 developed, 5 developing), while Easterlin and Angelescu consider 37 countries (17 developed, 11 transition and 9 developing countries)(see tab. 42 in the Appendix).

3 Empirical strategy

General statements about the relationship between economic growth and SWB over time have typically been based on bivariate analysis of national measures of SWB and per capita income (Stevenson and Wolfers, 2008; Easterlin and Angelescu, 2009). Since our aim is to test the long term relationship between SC and SWB, a natural strategy is to adopt this same approach, where of course we substitute for GDP with SC.

We also aim at comparing how income and social capital are related with SWB. Hence, we run bivariate regressions of SWB trends on the rate of growth of

²For this reason we exclude Malta and Iceland.

GDP per-capita³, in practice replicating on our sample what done by Easterlin and Angelescu (2009) and Stevenson and Wolfers (2008). Furthermore, since SC and GDP may affect each other in several ways, bringing a high risk of spurious correlation in bivariate analysis, we provide trivariate regressions of SWB on both changes in per capita GDP and SC over time. The results of bivariate analysis turn out to be substantially confirmed.

We follow a two-steps estimation strategy. First, we regress our proxies of SWB and SC on time (Happiness, 1 - 4 scale; Life Satisfaction, 1 - 10 scale; Membership: fraction of population member of at least 1 association). Coefficients of the time variable represent the estimated average annual growth for a given country, period, and variable of interest.

Second, the time coefficient of SWB is regressed on the time coefficient of SC. Formally, we estimate the following relationships:

$$H_{ij} = \alpha_j^H + \beta_j^H \cdot TIME_{ij} + \mu_{ij}^H \quad (1)$$

$$LS_{ij} = \alpha_j^{LS} + \beta_j^{LS} \cdot TIME_{ij} + \mu_{ij}^{LS} \quad (2)$$

where H and LS identify, respectively, happiness and life satisfaction variables, $TIME$ represents the year in which each dependent variable has been observed, μ is the error term and the indexes j and i stand for countries and individuals, respectively. The coefficient of $TIME$ is estimated by means of OLS with robust standard errors and represents the average annual growth rate of the dependent variable of interest. Since our SC variable takes value either 1 or 0 at the individual level, we find it convenient to estimate its long run average change using a probit model. Formally, we estimate:

$$Pr(Membership_{ij} = 1|TIME) = \phi(\alpha_j^{Mem} + \beta_j^{Mem} \cdot TIME_{ij}) \quad (3)$$

where again indexes j and i stand for countries and individuals, respectively. The coefficients to be used in the second step are obtained via marginal effects on eq. 3 evaluated at the middle point of the period considered. Intuitively, this provides an “average” estimated change per year in the probability of being member of a group or an association. Next, we estimate the following equation with OLS:

$$\dot{Z}_j = \alpha_j^{\dot{Z}} + \beta_j^{\dot{Z}} \cdot MEMBER_j + \mu_j^{\dot{Z}} \quad (4)$$

where \dot{Z} stands alternatively for the estimated growth rate of happiness or life satisfaction and $MEMBER$ is the estimated probability of being member of at least one group or association as determined by eq.3. Again, μ is the error term and index j refers to countries.

4 Results

In short, we find that changes over time in happiness and SC are strongly and positively related in all samples considered. The estimated coefficient of

³GDP data are drawn from World Development Indicators 2008 (<http://web.worldbank.org>) and are expressed in constant 2000 US\$.

eq.4 turns out to be large and significant when we consider the 14 developed countries, the 5 developing ones as well as all countries together (see fig.1, fig.2 and fig.3 in the Appendix).

Changes over time in life satisfaction and SC provide similar results when developing countries and all countries together are considered (see fig.8 and fig.9 in the Appendix). However, we find no significant long run relationship between SWB and SC for developed countries (see fig.7 in the Appendix).

Taken together these results suggest two important things. First, the long term trends of SC are strong predictors of the long term trends of SWB. In particular, cross-country variability observed in SC trends well predicts cross-country variability in SWB trends. Second, time series of SC seem to be more correlated to time series of happiness than of life satisfaction. This is consistent with the idea that measures of happiness and life satisfaction capture different aspects of subjective well-being - more affective the former, more cognitive the latter (Inglehart 2009). Affective aspects may be more closely linked with one's social relationships than cognitive ones.

Turning our attention to the relationship between long term changes in SWB and GDP per-capita, we find that the Easterlin paradox holds. Regressing either happiness or life satisfaction on per capita GDP growth gives insignificant and close to zero coefficients, in all samples considered (see figures from fig. 4 to fig. 12 in the Appendix). This can be interpreted as a robustness check of the results provided by Easterlin and Angelescu (2009) since we replicated their findings with a different sample.

We emphasize that the difference between the long-term changes in SC and per capita GDP as predictors of changes in SWB is striking. Time series of membership in groups and associations and SWB are strongly related whereas long run growth of GDP per capita does not predict any change in SWB.

5 Robustness checks

5.1 Trivariate analysis

GDP per capita and SC may be related in several different ways. Part of the economic literature focuses on the role of SC for income growth and economic development (Barro, 1996; Knack and Keefer, 1997; Rodrik, 1997; Whiteley, 2000). Putnam et al. (1993) show that there are paths through which SC fosters economic growth. However, there is also a long standing tradition emphasizing that economic growth can erode the stock of SC over time (Polanyi, 1968; Hirsch, 1976) (see also Bartolini and Bonatti, 2008).

Therefore, there exists the concrete possibility that the co-movements of SC and GDP generate a spurious correlation between SWB and SC. In order to provide some insight in this regard we regress long term changes in SWB on both long term changes in SC and GDP per capita. Table 1 shows the results of the OLS regressions relative to the following model:

$$Z_j = \alpha_j^Z + \beta_{1,j}^Z \cdot MEMBER_j + \beta_{2,j}^Z \cdot \dot{G}_j + \mu_j^Z \quad (5)$$

As mentioned above, Z stands for the proxies of SWB, $MEMBER$ represents SC, \dot{G} is the growth rate of GDP, μ is the error term and j is an index for the different countries.

Regressions substantially confirm the results of the bivariate analysis. Again, the hypothesis of the Easterlin paradox is not rejected. The coefficients of \dot{G} are very close to zero and insignificant in both happiness and life satisfaction regressions. Somewhat surprisingly, the \dot{G} coefficient in the happiness regression for developed countries is slightly negative and significant.

		Happiness		Satisfaction with life	
		coeff.	std. error	coeff.	std. error
Developed countries	Growth rate of GDP	-0.003	0.0017*	0.011	0.0076
	Annual change of SC	0.34	0.072***	-0.126	0.575
Developing countries	Growth rate of GDP	0.009	0.0113	0.034	0.0144
	Annual change of SC	1.44	0.949	4.304	0.966**
All countries	Growth rate of GDP	0.003	0.004	0.001	0.009
	Annual change of SC	0.908	0.472*	1.54	0.845*

Table 1: Trivariate OLS regressions with robust standard errors. The first column refers to the sub-groups of countries considered in each regression: *developed*, *developing* and *all countries*, respectively. For each group of countries, the table shows the coefficients and standard errors of the growth rate of GDP and of the annual change of social capital regressed on the two dependent variables (happiness and satisfaction with life). The asterisks on standard errors refer to the p-values: * p < 0.10; ** p < 0.05; *** p < 0.01.

Similarly, the results concerning SC are substantially confirmed. The trends of happiness and SC are positively related when either developed countries or all countries are considered. The exception is the coefficient for the sample of developing countries, which remains large and positive but becomes insignificant. Results on the relationship between the long run growth of life satisfaction and the long run growth of SC are also confirmed.

5.2 Longer Period

In our sample, 8 out of 14 developed countries have at least 20 years of observations of SC. Therefore, we can check the robustness of our findings for developed countries in the subset of countries with longer time series. Charts from fig.13 to fig.16 show results from bivariate regressions of SWB on GDP or SC applied on this smaller set of developed countries.

Overall, estimates confirm what obtained on the whole sample of developed countries. In particular, we have three findings. First, the growth of GDP per capita and the trend of SWB are unrelated for both happiness and life satisfaction. Correlation coefficients turn out to be close to zero and not statistically significant. Second, trends in membership and happiness are strongly related in the long run: the correlation coefficient is large, positive and statistically significant. Third, trends in membership and life satisfaction have a relationship which is ambiguous in the long run: the correlation coefficient is positive and large, but not statistically significant.

5.3 Changing the specification of the GDP variable

Following Easterlin and Angelescu (2009) and Stevenson and Wolfers (2008), we have regressed the estimated average annual growth of SWB on the average growth rate of GDP per capita. This is in line with the general presumption

of decreasing marginal utility of income and, in particular, of the logarithmic dependency of SWB on income. However, a linear dependency might be in place with potential serious consequences for the unbiasedness of our estimates. For instance, we note that passing from growth rate of GDP to absolute GDP growth implies a radical change of the position of China, which scores very high in growth rate and low in absolute growth of GDP.

Moreover, the use of the growth rate in place of absolute growth of GDP per capita is not without drawbacks. More precisely, it imposes to restrict the use of available information to the extreme points of the period considered. This makes estimates relatively more exposed to the risk of biases due to shocks and/or measurement errors. The actual trend of GDP may well differ from the average growth rate calculated between the two most distant observations.

Therefore, it is interesting to check whether the results on the relationship between SWB and income are robust to a different specification of GDP changes. We do this check by substituting for growth rates with absolute growth of GDP per capita in both bivariate and trivariate regressions. Average GDP growth is estimated by regressing all GDP observations available in the period considered on the time variable. Results show that our findings are robust to this different specification of the income variable (see tab.2 and tab.3). The coefficients of long term absolute growth in GDP remain negative and insignificant for developed, developing and all countries together, in both bivariate and trivariate regressions of happiness or life satisfaction.

		Happiness		Satisfaction with life	
		coeff.	std. error	coeff.	std. error
Developed countries	annual change in GDP p.c	-0.000002	0.000008	-0.000002	0.000020
Developing countries	annual change in GDP p.c	-0.000022	0.000040	-0.000140	0.000080
All countries	annual change in GDP p.c	-0.000010	0.000018	-0.000024	0.000040

Table 2: Bivariate OLS regressions of SWB trend on annual change in GDP per capita. The first column refers to the sub-groups of countries considered in each regression: *developed*, *developing* and *all countries*, respectively. For each group of countries, the table shows the coefficients and standard errors of the annual change in GDP per capita regressed on the two dependent variables (happiness and satisfaction with life). The asterisks on standard errors refer to the p-values: * p < 0.10; ** p < 0.05; *** p < 0.01.

		Happiness		Satisfaction with life	
		coeff.	std. error	coeff.	std. error
Developed countries	annual change in GDP pc	0.00	0.00000344	0.00	0.00002
	Annual change of SC	0.389	0.0532***	-0.2676	0.6012
Developing countries	annual change in GDP pc	0.00	0.00002	-0.00008	0.00004
	Annual change of SC	0.904	0.4418	1.977	0.3956**
All countries	annual change in GDP pc	-0.00001	0.00001	-0.00002	0.00002
	Annual change of SC	0.7263	0.2594**	1.467	0.4179***

Table 3: Trivariate OLS regressions of SWB trends on both GDP and social capital annual changes. The first column refers to the sub-groups of countries considered in each regression: *developed*, *developing* and *all countries*, respectively. For each group of countries, the table shows the coefficients and standard errors of the annual change in GDP per capita and of the annual change of social capital regressed on the two dependent variables (happiness and satisfaction with life). The asterisks on standard errors refer to the p-values: * p < 0.10; ** p < 0.05; *** p < 0.01.

6 Changing SC measure: Unpaid voluntary work

We make a further check of the robustness of our findings by replicating our analysis with a different measure of SC, namely the fraction of individuals providing unpaid voluntary work in at least one group or association. The variable is constructed along the same lines of the variable *membership* (fraction of the population member of at least 1 association), using unpaid voluntary work in place of simple memberships.

Voluntary work is less likely to affect average SWB compared to membership, since it involves a much smaller fraction of the population. Indeed, frequencies of unpaid voluntary work are always smaller than those of simple memberships. Descriptive statistics can be found in the Appendix (see tab.7), while the frequencies of participation in groups for each country and wave are reported in tables 23 to 36 in the Appendix.

However, results are largely consistent with those found using membership as a measure of SC. Happiness is positively and significantly correlated with unpaid voluntary work in developing countries and all countries together. The coefficient of developed countries is positive and large but, differently from what seen for membership, not significant (see fig. 17).

The positive relationship between SWB and SC confirms to be stronger for happiness than for life satisfaction. When we use life satisfaction as a measure of SWB, we find that only for the case of developing countries there is a positive and significant correlation (see figures 20, 21 and 22 in the Appendix). Moreover, for developed countries we find a statistically significant negative long term correlation between unpaid voluntary work and life satisfaction (see fig.20 in the Appendix).

7 Conclusion

In this paper we compared the potential of long-term changes in social capital and GDP per-capita in predicting changes in subjective well-being over the long-run. Our findings suggests that social capital and GDP per-capita perform very differently: Whereas social capital is a good predictor, income growth definitely is not. More precisely, we have found that long time series of social capital and subjective well-being are strongly correlated. This result holds more strongly for happiness than for life satisfaction. We have also shown that this result is robust to a control for long-term changes in per-capita GDP as well as to the restriction to a sub-sample of countries with longer time series available. Moreover, different measures of social capital provide similar results. On the other hand, we have found that that long time series of GDP per-capita and subjective well-being are unrelated, thus confirming the results obtained by Easterlin and Angelescu (2009). Their results survive to several robustness checks (although in a smaller sample of countries): Including a control for social capital trends, adopting a different specification of GDP variations, changing the time span, and changing the measure of subjective well-being variable: happiness instead than life satisfaction.

8 Appendix: tables and figures

happiness		wave			
country/region	1981-1984	1989-1993	1994-1999	1999-2004	2005-2007
Argentina	2.943	3.067	3.100	3.120	3.167
Belgium	3.264	3.315		3.310	
Canada	3.317	3.045		3.407	3.412
Chile		3.034	3.072	3.159	3.134
China		2.946	3.052	2.868	2.939
Denmark	3.261	3.360		3.394	
Finland	3.097	3.086	3.152	3.139	3.199
France	3.111	3.163		3.238	3.242
Germany		3.006	2.966	2.970	2.973
Ireland	3.361	3.359		3.381	
Italy	2.879	2.990		2.952	3.071
Japan	2.979	3.001	3.228	3.172	3.177
South Korea		2.863	2.998	2.956	3.009
Mexico	3.143	2.947	2.919	3.490	3.488
Netherlands	3.309	3.385		3.403	3.351
Spain	2.976	3.049	3.047	3.061	3.048
Sweden	3.241	3.364	3.340	3.287	3.382
Great Britain	3.331	3.246	3.212		3.425
United States	3.217	3.278	3.397	3.331	3.276

Table 4: Descriptive statistics: average happiness per wave.

Life Satisfaction	wave				
	1981-1984	1989-1993	1994-1999	1999-2004	2005-2007
country/region					
Argentina	6.770	7.253	6.927	7.299	7.701
Belgium	7.378	7.597		7.425	
Canada	7.817	7.888		7.849	7.746
Chile		7.554	6.917	7.120	7.244
China		7.292	6.833	6.530	6.763
Denmark	8.216	8.163		8.240	
Finland	7.906	7.681	7.778	7.866	7.839
France	6.707	6.783		7.006	6.864
Germany		7.025	6.932	7.416	6.923
Ireland	7.817	7.875		8.203	
Italy	6.647	7.300		7.171	6.888
Japan	6.579	6.526	6.608	6.484	6.991
South Korea	5.335	6.686		6.214	6.390
Mexico	7.965	7.411	7.537	8.143	8.227
Netherlands	7.726	7.768		7.849	7.722
Spain	6.590	7.150	6.611	7.034	7.314
Sweden	8.011	7.972	7.773	7.639	7.722
Great Britain	7.563	7.490	7.582	7.396	7.553
United States	7.659	7.731	7.666	7.663	7.262

Table 5: Descriptive statistics: average life satisfaction per wave.

Membership	wave				
	1981-1984	1989-1993	1994-1999	1999-2004	2005-2007
country/region					
Argentina	0.329	0.230	0.563	0.423	0.523
Belgium	0.408	0.550		0.630	
Canada	0.563	0.634		0.731	0.792
Chile		0.445	0.745	0.491	0.618
China		0.624	0.490	0.237	0.351
Denmark	0.638	0.808		0.842	
Finland	0.466	0.764	0.967	0.800	0.926
France	0.260	0.373		0.392	0.536
Germany		0.725	0.795	0.455	0.644
Ireland	0.519	0.477		0.554	
Italy	0.244	0.335		0.421	0.611
Japan	0.292	0.291	0.513	0.424	0.585
South Korea	0.379	0.710	0.810	0.716	0.727
Mexico	0.382	0.353	0.848	0.463	0.824
Netherlands	0.577	0.836		0.923	0.751
Spain	0.309	0.227	0.585	0.281	0.386
Sweden	0.664	0.849	0.936	0.956	0.951
Great Britain	0.520	0.508		0.333	0.751
United States	0.718	0.706	0.923	0.894	0.869

Table 6: Descriptive statistics: average group membership per wave.

Unpaid voluntary work		wave				
country/region	1981-1984	1989-1993	1994-1999	1999-2004	2005-2007	
Argentina	0.187	0.157	0.342	0.232	0.321	
Belgium	0.205	0.282		0.354		
Canada	0.317	0.431		0.491	0.638	
Chile		0.296	0.519	0.436	0.451	
China		0.594	0.231	0.788	0.180	
Denmark	0.178	0.257		0.372		
Finland	0.174	0.447	0.364	0.380	0.490	
France	0.152	0.233		0.271	0.393	
Germany		0.342	0.531	0.193	0.428	
Ireland	0.219	0.265		0.326		
Italy	0.170	0.235		0.261	0.396	
Japan	0.114	0.136	0.297	0.156	0.372	
South Korea	0.175	0.198	0.390	0.471	0.365	
Mexico	0.210	0.259	0.673	0.384	0.619	
Netherlands	0.243	0.356		0.492	0.570	
Spain	0.229	0.120	0.352	0.163	0.252	
Sweden	0.257	0.392	0.598	0.536	0.614	
Great Britain	0.187	0.217		0.423	0.602	
United States	0.308	0.465	0.779	0.677	0.639	

Table 7: Descriptive statistics: average unpaid voluntary work in groups per wave.

country	Italy				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.034	0.041		0.064	
belong to religious organization	0.056	0.080		0.102	0.223
belong to education, arts, music or cultural activities	0.039	0.049		0.099	0.169
belong to human rights	0.011	0.011		0.029	0.211
belong to conservation, the environment, ecology, animal rights	0.017			0.038	0.078
belong to conservation, the environment, ecology		0.033			
belong to animal rights		0.017			
belong to sports or recreation		0.113		0.115	0.289
belong to peace movement		0.012		0.014	
belong to organization concerned with health		0.026		0.047	
belong to labour unions	0.078	0.059		0.062	0.142
belong to professional associations	0.027	0.039		0.071	0.167
belong to youth work	0.021	0.036		0.042	
belong to political parties	0.064	0.050		0.041	0.104
belong to local political actions		0.016		0.023	
belong to other groups		0.021		0.025	0.122

Table 8: Distribution of people participating in associations in Italy by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	France				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.039	0.066		0.055	
belong to religious organization	0.038	0.062		0.046	0.100
belong to education, arts, music or cultural activities	0.056	0.088		0.081	0.183
belong to human rights	0.011	0.026		0.012	0.208
belong to conservation, the environment, ecology, animal rights	0.015			0.021	0.144
belong to conservation, the environment, ecology		0.023			
belong to animal rights		0.023			
belong to sports or recreation		0.157		0.168	0.305
belong to peace movement		0.005		0.004	
belong to organization concerned with health		0.028		0.025	
belong to labour unions	0.092	0.052		0.041	0.109
belong to professional associations	0.042	0.050		0.032	0.102
belong to youth work	0.059	0.032		0.022	
belong to political parties	0.025	0.027		0.019	0.058
belong to local political actions		0.033		0.025	
belong to other groups		0.053		0.071	0.022

Table 9: Distribution of people participating in associations in France by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Spain				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.053	0.026		0.032	
belong to religious organization	0.146	0.048	0.432	0.066	0.213
belong to education, arts, music or cultural activities	0.049	0.053	0.143	0.066	0.093
belong to human rights	0.009	0.009	0.116	0.027	0.094
belong to conservation, the environment, ecology, animal rights	0.014		0.081	0.020	0.048
belong to conservation, the environment, ecology		0.014			
belong to animal rights		0.009			
belong to sports or recreation		0.053	0.203	0.077	0.144
belong to peace movement		0.007		0.011	
belong to organization concerned with health		0.014		0.024	
belong to labour unions	0.059	0.032	0.116	0.037	0.076
belong to professional associations	0.049	0.026	0.111	0.022	0.068
belong to youth work	0.033	0.018		0.020	
belong to political parties	0.027	0.018	0.087	0.017	0.048
belong to local political actions		0.011		0.021	
belong to other groups		0.038	0.102	0.021	0.056

Table 10: Distribution of people participating in associations in Spain by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Great Britain				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.086	0.071		0.068	
belong to religious organization	0.210	0.166		0.048	0.372
belong to education, arts, music or cultural activities	0.080	0.093		0.104	0.304
belong to human rights	0.015	0.020		0.026	0.313
belong to conservation, the environment, ecology, animal rights	0.050			0.015	0.166
belong to conservation, the environment, ecology		0.050			
belong to animal rights		0.019			
belong to sports or recreation		0.169		0.030	0.413
belong to peace movement		0.011		0.005	
belong to organization concerned with health		0.035		0.033	
belong to labour unions	0.199	0.144		0.073	0.191
belong to professional associations	0.101	0.098		0.016	0.235
belong to youth work	0.076	0.046		0.055	
belong to political parties	0.047	0.049		0.026	0.117
belong to local political actions		0.027		0.035	
belong to other groups		0.071		0.048	0.009

Table 11: Distribution of people participating in associations in Great Britain by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	United States				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.117	0.092		0.172	
belong to religious organization	0.538	0.487	0.783	0.578	0.658
belong to education, arts, music or cultural activities	0.139	0.197	0.375	0.369	0.266
belong to human rights	0.051	0.020	0.414	0.055	0.303
belong to conservation, the environment, ecology, animal rights	0.051		0.252	0.159	0.166
belong to conservation, the environment, ecology		0.083			
belong to animal rights		0.056			
belong to sports or recreation		0.202	0.405	0.344	0.281
belong to peace movement		0.020		0.043	
belong to organization concerned with health		0.073		0.172	
belong to labour unions	0.117	0.089	0.231	0.127	0.164
belong to professional associations	0.140	0.150	0.348	0.272	0.253
belong to youth work	0.120	0.126		0.266	
belong to political parties	0.113	0.145	0.502	0.187	0.513
belong to local political actions		0.048		0.129	
belong to other groups		0.108	0.311	0.210	0.909

Table 12: Distribution of people participating in associations in USA by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Japan				
wave	1	2	3	4	5
belong to social welfare service for elderly		0.019		0.094	
belong to religious organization	0.086	0.065	0.119	0.106	0.121
belong to education, arts, music or cultural activities	0.041	0.060	0.115	0.110	0.156
belong to human rights	0.027	0.002	0.043	0.017	0.048
belong to conservation, the environment, ecology, animal rights	0.007		0.031	0.032	0.047
belong to conservation, the environment, ecology		0.011			
belong to animal rights		0.003			
belong to sports or recreation		0.086	0.200	0.141	0.273
belong to peace movement		0.006		0.020	
belong to organization concerned with health		0.009		0.031	
belong to labour unions	0.110	0.074	0.132	0.065	0.100
belong to professional associations	0.066	0.044	0.153	0.048	0.138
belong to youth work		0.009		0.021	
belong to political parties	0.033	0.020	0.065	0.035	0.067
belong to local political actions		0.002		0.012	
belong to other groups		0.049	0.090	0.069	0.171

Table 13: Distribution of people participating in associations in Japan by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Sweden				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.071	0.076		0.211	
belong to religious organization	0.088	0.102	0.292	0.706	0.545
belong to education, arts, music or cultural activities	0.130	0.127	0.226	0.267	0.248
belong to human rights	0.035	0.093	0.225	0.157	0.327
belong to conservation, the environment, ecology, animal rights	0.034		0.130	0.117	0.102
belong to conservation, the environment, ecology		0.106			
belong to animal rights		0.069			
belong to sports or recreation		0.321	0.451	0.362	0.438
belong to peace movement		0.031		0.016	
belong to organization concerned with health		0.021		0.065	
belong to labour unions	0.439	0.585	0.634	0.624	0.585
belong to professional associations	0.072	0.119	0.163	0.147	0.200
belong to youth work	0.058	0.093		0.070	
belong to political parties	0.135	0.101	0.151	0.103	0.109
belong to local political actions		0.022		0.094	
belong to other groups		0.187	0.353	0.250	0.405

Table 14: Distribution of people participating in associations in Sweden by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Netherlands				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.116	0.160		0.215	
belong to religious organization	0.338	0.349		0.345	0.321
belong to education, arts, music or cultural activities	0.125	0.346		0.452	0.262
belong to human rights	0.033	0.143		0.244	0.205
belong to conservation, the environment, ecology, animal rights	0.111			0.451	0.156
belong to conservation, the environment, ecology		0.238			
belong to animal rights		0.125			
belong to sports or recreation		0.404		0.509	0.436
belong to peace movement		0.029		0.028	
belong to organization concerned with health		0.198		0.085	
belong to labour unions	0.143	0.191		0.236	0.206
belong to professional associations	0.068	0.131		0.174	0.105
belong to youth work	0.077	0.066		0.060	
belong to political parties	0.076	0.094		0.093	0.078
belong to local political actions		0.049		0.069	
belong to other groups		0.099		0.093	0.019

Table 15: Distribution of people participating in associations in Netherlands by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Germany				
wave	1	2	3	4	5
belong to social welfare service for elderly		0.081		0.038	
belong to religious organization		0.176	0.373	0.126	0.367
belong to education, arts, music or cultural activities		0.106	0.166	0.069	0.136
belong to human rights		0.018	0.213	0.004	0.100
belong to conservation, the environment, ecology, animal rights			0.084	0.022	0.050
belong to conservation, the environment, ecology		0.042			
belong to animal rights		0.036			
belong to sports or recreation		0.280	0.394	0.219	0.321
belong to peace movement		0.019		0.002	
belong to organization concerned with health		0.047		0.023	
belong to labour unions		0.313	0.212	0.070	0.110
belong to professional associations		0.079	0.132	0.040	0.079
belong to youth work		0.033		0.015	
belong to political parties		0.088	0.064	0.029	0.053
belong to local political actions		0.022		0.007	
belong to other groups		0.086	0.168	0.039	0.073

Table 16: Distribution of people participating in associations in Germany by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Denmark				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.040	0.055		0.065	
belong to religious organization	0.036	0.067		0.119	
belong to education, arts, music or cultural activities	0.062	0.125		0.166	
belong to human rights	0.034	0.028		0.041	
belong to conservation, the environment, ecology, animal rights	0.054			0.131	
belong to conservation, the environment, ecology		0.125			
belong to animal rights		0.041			
belong to sports or recreation		0.335		0.330	
belong to peace movement		0.021		0.008	
belong to organization concerned with health		0.058		0.040	
belong to labour unions	0.420	0.490		0.543	
belong to professional associations	0.138	0.121		0.110	
belong to youth work	0.098	0.047		0.066	
belong to political parties	0.065	0.065		0.066	
belong to local political actions		0.050		0.062	
belong to other groups		0.108		0.144	

Table 17: Distribution of people participating in associations in Denmark by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Finland				
wave	1	2	3	4	5
belong to social welfare service for elderly		0.105		0.096	
belong to religious organization	0.039	0.177	0.821	0.459	0.785
belong to education, arts, music or cultural activities	0.044	0.201	0.210	0.146	0.190
belong to human rights	0.046	0.058	0.146	0.059	0.215
belong to conservation, the environment, ecology, animal rights	0.007		0.077	0.048	0.099
belong to conservation, the environment, ecology		0.054			
belong to animal rights		0.015			
belong to sports or recreation		0.228	0.315	0.250	0.361
belong to peace movement		0.017		0.013	
belong to organization concerned with health		0.071		0.085	
belong to labour unions	0.187	0.359	0.511	0.336	0.507
belong to professional associations	0.112	0.153	0.093	0.059	0.133
belong to youth work		0.054		0.073	
belong to political parties	0.032	0.138	0.098	0.061	0.143
belong to local political actions		0.032		0.026	
belong to other groups		0.094	0.213	0.111	0.055

Table 18: Distribution of people participating in associations in Finland by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Belgium				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.052	0.116		0.113	
belong to religious organization	0.091	0.121		0.122	
belong to education, arts, music or cultural activities	0.103	0.162		0.189	
belong to human rights	0.005	0.059		0.099	
belong to conservation, the environment, ecology, animal rights	0.030			0.105	
belong to conservation, the environment, ecology		0.066			
belong to animal rights		0.074			
belong to sports or recreation		0.195		0.236	
belong to peace movement		0.019		0.024	
belong to organization concerned with health		0.042		0.050	
belong to labour unions	0.150	0.144		0.158	
belong to professional associations	0.038	0.067		0.083	
belong to youth work	0.058	0.082		0.075	
belong to political parties	0.025	0.058		0.070	
belong to local political actions		0.043		0.050	
belong to other groups		0.050		0.106	

Table 19: Distribution of people participating in associations in Belgium by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Ireland				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.099	0.074		0.066	
belong to religious organization	0.305	0.139		0.191	
belong to education, arts, music or cultural activities	0.067	0.101		0.109	
belong to human rights	0.012	0.016		0.030	
belong to conservation, the environment, ecology, animal rights	0.025			0.032	
belong to conservation, the environment, ecology		0.023			
belong to animal rights		0.010			
belong to sports or recreation		0.237		0.256	
belong to peace movement		0.006		0.015	
belong to organization concerned with health		0.032		0.043	
belong to labour unions	0.132	0.088		0.101	
belong to professional associations	0.041	0.050		0.078	
belong to youth work	0.094	0.063		0.069	
belong to political parties	0.041	0.038		0.043	
belong to local political actions		0.033		0.057	
belong to other groups		0.021		0.058	

Table 20: Distribution of people participating in associations in Ireland by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Canada				
wave	1	2	3	4	5
belong to social welfare service for elderly	0.119	0.084		0.131	
belong to religious organization	0.316	0.250		0.305	0.522
belong to education, arts, music or cultural activities	0.097	0.177		0.201	0.333
belong to human rights	0.029	0.046		0.045	0.314
belong to conservation, the environment, ecology, animal rights	0.047			0.081	0.151
belong to conservation, the environment, ecology		0.076			
belong to animal rights		0.026			
belong to sports or recreation		0.228		0.263	0.399
belong to peace movement		0.020		0.018	
belong to organization concerned with health		0.087		0.105	
belong to labour unions	0.111	0.122		0.134	0.241
belong to professional associations	0.111	0.164		0.158	0.264
belong to youth work	0.098	0.097		0.109	
belong to political parties	0.053	0.073		0.061	0.163
belong to local political actions		0.051		0.073	
belong to other groups		0.130		0.118	0.105

Table 21: Distribution of people participating in associations in Canada by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

developing countries					
label	1	2	3	4	5
			percent		
belong to social welfare service for elderly		4.41		6.39	
belong to religious organizations		16.66		21.83	39.29
belong to education, arts, music or cultural activities		9.33		10.02	20.81
belong to political parties		4.28		4.96	12.80
belong to labour unions		10.66		4.36	13.17
belong to local political actions		4.84		4.41	
belong to human rights		1.18		1.64	
membership of charitable/humanitarian organization					14.97
belong to conservation, the environment, ecology, animal rights				3.59	10.94
belong to conservation, the environment, ecology		1.65			
belong to animal rights		0.84			
belong to professional association		8.42		3.91	11.51
belong to youth work		5.46		3.75	
belong to sports or recreation		9.95		12.41	26.35
belong to women's group		2.39		3.30	
belong to peace movement		1.05		1.51	
belong to organization concerned with health		4.50		5.05	
belong to consumer groups					10.78
belong to other groups		2.90		1.73	

Table 22: Distribution of people participating in associations in Developing countries by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Italy				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.0260	0.0337		0.0505	
unpaid work religious or church organization	0.0467	0.0649		0.0670	0.0917
unpaid work education, arts, music or cultural activities	0.0319	0.0278		0.0605	0.0997
unpaid work human rights	0.0067	0.0074		0.0190	0.0931
unpaid work environment, conservation, animal rights	0.0089			0.0175	0.0140
unpaid work environment, conservation, ecology		0.0168			
unpaid work animal rights		0.0084			
unpaid work sports or recreation		0.0659		0.0625	0.1733
unpaid work peace movement		0.0074		0.0090	
unpaid work organization concerned with health		0.0203		0.0290	
unpaid work labour unions	0.0371	0.0268		0.0220	0.0329
unpaid work professional associations	0.0126	0.0114		0.0320	0.0700
unpaid work youth work	0.0178	0.0292		0.0295	
unpaid work consumer groups	0.0015				
unpaid work women's group		0.0010		0.0040	
unpaid work political parties or groups	0.0445	0.0347		0.0230	0.0340
unpaid work local political action groups		0.0129		0.0175	
unpaid work other groups		0.0178		0.0155	0.0935

Table 23: Distribution of people performing unpaid voluntary work in associations in Italy by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	France				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.0317	0.0539		0.0415	
unpaid work religious or church organization	0.0267	0.0479		0.0347	0.0452
unpaid work education, arts, music or cultural activities	0.0317	0.0459		0.0508	0.1119
unpaid work human rights	0.0042	0.0140		0.0062	0.0910
unpaid work environment, conservation, animal rights	0.0100			0.0087	0.0621
unpaid work environment, conservation, ecology		0.0150			
unpaid work animal rights		0.0110			
unpaid work sports or recreation		0.0619		0.0910	0.2234
unpaid work peace movement		0.0050		0.0025	
unpaid work organization concerned with health		0.0200		0.0161	
unpaid work labour unions	0.0283	0.0240		0.0142	0.0564
unpaid work professional associations	0.0175	0.0309		0.0149	0.0610
unpaid work youth work	0.0433	0.0250		0.0155	
unpaid work consumer groups	0.0067				
unpaid work women's group		0.0080		0.0012	
unpaid work political parties or groups	0.0175	0.0160		0.0068	0.0260
unpaid work local political action groups		0.0289		0.0167	
unpaid work other groups		0.0399		0.0613	0.0190

Table 24: Distribution of people performing unpaid voluntary work in associations in France by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Spain				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.083	0.017		0.023	
unpaid work religious or church organization	0.098	0.034	0.171	0.041	0.091
unpaid work education, arts, music or cultural activities	0.044	0.024	0.077	0.029	0.057
unpaid work human rights	0.013	0.008	0.046	0.014	0.051
unpaid work environment, conservation, animal rights	0.016		0.026	0.011	0.011
unpaid work environment, conservation, ecology		0.011			
unpaid work animal rights		0.007			
unpaid work sports or recreation		0.023	0.130	0.031	0.098
unpaid work peace movement		0.006		0.005	
unpaid work organization concerned with health		0.008		0.015	
unpaid work labour unions	0.022	0.012	0.032	0.012	0.028
unpaid work professional associations	0.022	0.010	0.043	0.007	0.034
unpaid work youth work	0.038	0.014		0.012	
unpaid work consumer groups	0.009				
unpaid work women's group		0.003		0.008	
unpaid work political parties or groups	0.021	0.011	0.018	0.012	0.011
unpaid work local political action groups		0.008		0.017	
unpaid work other groups		0.011	0.042	0.024	0.043

Table 25: Distribution of people performing unpaid voluntary work in associations in Spain by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Great Britain				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.063	0.047		0.137	
unpaid work religious or church organization	0.061	0.057		0.064	0.184
unpaid work education, arts, music or cultural activities	0.015	0.029		0.032	0.211
unpaid work human rights	0.008	0.008		0.046	0.214
unpaid work environment, conservation, animal rights	0.010			0.076	0.061
unpaid work environment, conservation, ecology		0.015			
unpaid work animal rights		0.005			
unpaid work sports or recreation		0.034		0.038	0.291
unpaid work peace movement		0.004		0.047	
unpaid work organization concerned with health		0.026		0.098	
unpaid work labour unions	0.012	0.013		0.015	0.089
unpaid work professional associations	0.013	0.018		0.077	0.139
unpaid work youth work	0.056	0.036		0.153	
unpaid work consumer groups	0.001				
unpaid work women's group		0.019		0.012	
unpaid work political parties or groups	0.015	0.015		0.013	0.031
unpaid work local political action groups		0.007		0.017	
unpaid work other groups		0.036			0.007

Table 26: Distribution of people performing unpaid voluntary work in associations in Great Britain by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	United States				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.062	0.061		0.144	
unpaid work religious or church organization	0.211	0.288	0.514	0.386	0.376
unpaid work education, arts, music or cultural activities	0.044	0.100	0.221	0.199	0.144
unpaid work human rights	0.017	0.010	0.261	0.029	0.163
unpaid work environment, conservation, animal rights	0.014		0.091	0.087	0.054
unpaid work environment, conservation, ecology		0.034			
unpaid work animal rights		0.022			
unpaid work sports or recreation		0.083	0.237	0.180	0.162
unpaid work peace movement		0.008		0.021	
unpaid work organization concerned with health		0.053		0.114	
unpaid work labour unions	0.009	0.018	0.099	0.029	0.076
unpaid work professional associations	0.044	0.055	0.212	0.106	0.122
unpaid work youth work	0.077	0.096		0.221	
unpaid work consumer groups	0.006				
unpaid work women's group		0.045		0.093	
unpaid work political parties or groups	0.031	0.047	0.203	0.066	0.179
unpaid work local political action groups		0.031		0.072	
unpaid work other groups		0.064	0.213	0.143	0.442

Table 27: Distribution of people performing unpaid voluntary work in associations in United States by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Japan				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people		0.019		0.054	
unpaid work religious or church organization	0.041	0.025	0.052	0.032	0.044
unpaid work education, arts, music or cultural activities	0.015	0.030	0.061	0.039	0.100
unpaid work human rights	0.023	0.002	0.014	0.003	0.017
unpaid work environment, conservation, animal rights	0.004		0.014	0.012	0.024
unpaid work environment, conservation, ecology		0.012			
unpaid work animal rights		0.002			
unpaid work sports or recreation		0.028	0.122	0.033	0.183
unpaid work peace movement		0.008		0.007	
unpaid work organization concerned with health		0.006		0.015	
unpaid work labour unions	0.024	0.014	0.027	0.006	0.025
unpaid work professional associations	0.025	0.014	0.066	0.013	0.054
unpaid work youth work		0.009		0.010	
unpaid work consumer groups					
unpaid work women's group		0.015		0.012	
unpaid work political parties or groups	0.021	0.014	0.016	0.012	0.021
unpaid work local political action groups		0.005		0.004	
unpaid work other groups		0.039	0.049		0.110

Table 28: Distribution of people performing unpaid voluntary work in associations in Japan by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Sweden				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.0178	0.0344		0.0926	
unpaid work religious or church organization	0.0891	0.0277	0.0789	0.2266	0.0672
unpaid work education, arts, music or cultural activities	0.0356	0.0325	0.1275	0.1163	0.1280
unpaid work human rights	0.0168	0.0315	0.0668	0.0473	0.0981
unpaid work environment, conservation, animal rights	0.0419		0.0223	0.0414	0.0090
unpaid work environment, conservation, ecology		0.0248			
unpaid work animal rights		0.0134			
unpaid work sports or recreation		0.1710	0.2697	0.1704	0.2940
unpaid work peace movement		0.0153		0.0039	
unpaid work organization concerned with health		0.0086		0.0266	
unpaid work labour unions	0.0252	0.0630	0.1303	0.1054	0.0970
unpaid work professional associations	0.0419	0.0296	0.0526	0.0443	0.0623
unpaid work youth work	0.0346	0.0697		0.0512	
unpaid work consumer groups	0.0136				
unpaid work women's group		0.0181		0.0207	
unpaid work political parties or groups	0.0210	0.0401	0.0475	0.0433	0.0291
unpaid work local political action groups		0.0096		0.0571	
unpaid work other groups		0.0917	0.1888		0.2235

Table 29: Distribution of people performing unpaid voluntary work in associations in Sweden by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Netherlands				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.086	0.086		0.092	
unpaid work religious or church organization	0.081	0.093		0.114	0.147
unpaid work education, arts, music or cultural activities	0.051	0.100		0.169	0.203
unpaid work human rights	0.011	0.029		0.039	0.066
unpaid work environment, conservation, animal rights	0.011			0.025	0.035
unpaid work environment, conservation, ecology		0.028			
unpaid work animal rights		0.016			
unpaid work sports or recreation		0.094		0.162	0.373
unpaid work peace movement		0.012		0.006	
unpaid work organization concerned with health		0.033		0.070	
unpaid work labour unions	0.011	0.015		0.022	0.072
unpaid work professional associations	0.014	0.019		0.037	0.044
unpaid work youth work	0.057	0.053		0.042	
unpaid work consumer groups	0.005				
unpaid work women's group		0.025		0.021	
unpaid work political parties or groups	0.016	0.023		0.026	0.034
unpaid work local political action groups		0.029		0.039	
unpaid work other groups		0.044		0.063	0.019

Table 30: Distribution of people performing unpaid voluntary work in associations in Netherlands by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Germany				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people		0.035		0.018	
unpaid work religious or church organization		0.075	0.121	0.041	0.131
unpaid work education, arts, music or cultural activities		0.039	0.106	0.028	0.077
unpaid work human rights		0.007	0.076	0.001	0.041
unpaid work environment, conservation, animal rights			0.021	0.009	0.014
unpaid work environment, conservation, ecology		0.016			
unpaid work animal rights		0.013			
unpaid work sports or recreation		0.109	0.285	0.056	0.243
unpaid work peace movement		0.006		0.000	
unpaid work organization concerned with health		0.017		0.011	
unpaid work labour unions		0.051	0.071	0.004	0.028
unpaid work professional associations		0.020	0.045	0.005	0.035
unpaid work youth work		0.022		0.010	
unpaid work consumer groups					
unpaid work women's group		0.026		0.018	
unpaid work political parties or groups		0.040	0.033	0.011	0.023
unpaid work local political action groups		0.011		0.003	
unpaid work other groups		0.038	0.097	0.024	0.054

Table 31: Distribution of people performing unpaid voluntary work in associations in Germany by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Denmark				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people		0.019	0.021	0.040	
unpaid work religious or church organization		0.015	0.024	0.033	
unpaid work education, arts, music or cultural activities		0.014	0.045	0.054	
unpaid work human rights		0.013	0.009	0.012	
unpaid work environment, conservation, animal rights		0.003		0.022	
unpaid work environment, conservation, ecology			0.009		
unpaid work animal rights			0.003		
unpaid work sports or recreation			0.113	0.142	
unpaid work peace movement			0.002	0.004	
unpaid work organization concerned with health			0.009	0.010	
unpaid work labour unions		0.025	0.033	0.038	
unpaid work professional associations		0.046	0.026	0.038	
unpaid work youth work		0.057	0.028	0.051	
unpaid work consumer groups		0.006			
unpaid work women's group			0.005	0.008	
unpaid work political parties or groups		0.019	0.019	0.026	
unpaid work local political action groups			0.020	0.030	
unpaid work other groups			0.035	0.065	

Table 32: Distribution of people performing unpaid voluntary work in associations in Denmark by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Finland				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people		0.075		0.067	
unpaid work religious or church organization	0.029	0.065	0.094	0.071	0.178
unpaid work education, arts, music or cultural activities	0.021	0.085	0.084	0.049	0.095
unpaid work human rights	0.026	0.022	0.040	0.033	0.087
unpaid work environment, conservation, animal rights	0.005		0.011	0.021	0.017
unpaid work environment, conservation, ecology		0.032			
unpaid work animal rights		0.010			
unpaid work sports or recreation		0.160	0.129	0.125	0.216
unpaid work peace movement		0.012		0.009	
unpaid work organization concerned with health		0.044		0.039	
unpaid work labour unions	0.019	0.080	0.044	0.041	0.116
unpaid work professional associations	0.070	0.071	0.015	0.020	0.024
unpaid work youth work		0.048		0.049	
unpaid work consumer groups					
unpaid work women's group		0.032		0.018	
unpaid work political parties or groups	0.005	0.068	0.024	0.026	0.033
unpaid work local political action groups		0.029		0.015	
unpaid work other groups		0.066	0.087	0.052	0.028

Table 33: Distribution of people performing unpaid voluntary work in associations in Finland by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Ireland				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.073	0.069		0.043	
unpaid work religious or church organization	0.072	0.068		0.095	
unpaid work education, arts, music or cultural activities	0.018	0.040		0.048	
unpaid work human rights	0.006	0.013		0.020	
unpaid work environment, conservation, animal rights	0.013			0.013	
unpaid work environment, conservation, ecology		0.006			
unpaid work animal rights		0.003			
unpaid work sports or recreation		0.070		0.126	
unpaid work peace movement		0.002		0.008	
unpaid work organization concerned with health		0.023		0.031	
unpaid work labour unions		0.014	0.011	0.017	
unpaid work professional associations	0.012	0.012		0.031	
unpaid work youth work	0.072	0.048		0.047	
unpaid work consumer groups	0.003				
unpaid work women's group		0.019		0.028	
unpaid work political parties or groups	0.016	0.022		0.020	
unpaid work local political action groups		0.026		0.034	
unpaid work other groups		0.016		0.045	

Table 34: Distribution of people performing unpaid voluntary work in associations in Ireland by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Belgium				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.043	0.062		0.060	
unpaid work religious or church organization	0.047	0.067		0.061	
unpaid work education, arts, music or cultural activities	0.062	0.071		0.094	
unpaid work human rights	0.003	0.029		0.050	
unpaid work environment, conservation, animal rights	0.017			0.033	
unpaid work environment, conservation, ecology		0.024			
unpaid work animal rights		0.018			
unpaid work sports or recreation		0.061		0.079	
unpaid work peace movement		0.009		0.014	
unpaid work organization concerned with health		0.025		0.042	
unpaid work labour unions	0.013	0.019		0.022	
unpaid work professional associations	0.018	0.020		0.029	
unpaid work youth work	0.037	0.053		0.043	
unpaid work consumer groups	0.003				
unpaid work women's group		0.033		0.029	
unpaid work political parties or groups	0.014	0.016		0.029	
unpaid work local political action groups		0.026		0.027	
unpaid work other groups		0.023		0.076	

Table 35: Distribution of people performing unpaid voluntary work in associations in Belgium by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

country	Canada				
wave	1	2	3	4	5
unpaid work social welfare service for elderly people	0.090112	0.061272		0.095805	
unpaid work religious or church organization	0.148325	0.154335		0.193164	0.285118
unpaid work education, arts, music or cultural activities	0.052632	0.093642		0.105645	0.204082
unpaid work human rights	0.015152	0.02659		0.023822	0.21033
unpaid work environment, conservation, animal rights	0.019139			0.039358	0.056771
unpaid work environment, conservation, ecology		0.034682			
unpaid work animal rights		0.014451			
unpaid work sports or recreation		0.124855		0.127395	0.254984
unpaid work peace movement		0.015029		0.011393	
unpaid work organization concerned with health		0.068208		0.082341	
unpaid work labour unions	0.015152	0.036416		0.031072	0.126277
unpaid work professional associations	0.036683	0.053757		0.05334	0.169073
unpaid work youth work	0.079745	0.071676		0.081305	
unpaid work consumer groups	0.011164				
unpaid work women's group		0.045087		0.053858	
unpaid work political parties or groups	0.032695	0.037572		0.027447	0.04784
unpaid work local political action groups		0.04104		0.04609	
unpaid work other groups		0.088439		0.086484	0.040559

Table 36: Distribution of people performing unpaid voluntary work in associations in Canada by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

Developing Countries					
	1	2	3	4	5
	percent				
unpaid work social welfare service for elderly people		0.058		0.138	
unpaid work religious or church organization	0.087	0.077	0.283	0.158	0.195
unpaid work education, arts, music or cultural activities	0.033	0.053	0.133	0.080	0.095
unpaid work human rights	0.046	0.008	0.068	0.017	0.067
unpaid work environment, conservation, animal rights	0.015		0.057	0.069	0.035
unpaid work environment, conservation, ecology		0.016			
unpaid work animal rights		0.007			
unpaid work sports or recreation		0.045	0.168	0.092	0.124
unpaid work peace movement		0.008		0.041	
unpaid work organization concerned with health		0.019		0.077	
unpaid work labour unions	0.015	0.014	0.061	0.029	0.042
unpaid work professional associations	0.025	0.039	0.070	0.025	0.043
unpaid work youth work		0.039		0.045	
unpaid work consumer groups					
unpaid work women's group		0.017		0.050	
unpaid work political parties or groups	0.024	0.060	0.057	0.040	0.048
unpaid work local political action groups		0.030		0.059	
unpaid work other groups		0.021	0.056	0.018	0.013

Table 37: Distribution of people performing unpaid voluntary work in associations in Developing countries by wave. The first column refers to the different associations, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

developed countries					
wave	1	2	3	4	5
n. of groups	percentage of membership				
0	52.39	46.32	31.02	42.47	29.25
1	30.54	22.58	22.02	22.68	24.2
2	10.18	13.9	17.59	13.91	17.8
3	4.04	7.3	11.9	8.23	12.72
4	1.65	4.16	6.83	5.28	6.71
5	0.77	2.37	3.88	3.2	4.07
6	0.23	1.37	2.52	1.93	2.14
7	0.11	0.82	1.3	0.91	0.92
8	0.02	0.41	1.15	0.52	1.29
9	0.06	0.32	1.78	0.38	0.91
10		0.19		0.15	
11		0.1		0.1	
12		0.04		0.1	
13		0.04		0.05	
14		0.02		0.03	
15		0.01		0.01	
16		0.02		0.04	
17		0.01			

Table 38: Distribution of people participating in more than 1 group in Developed countries by wave. The first column refers to the number of groups and associations attended by each individual, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

developing countries					
wave	1	2	3	4	5
n. of groups	percentage of membership				
0	63.25	53.06	29.03	52.74	40.98
1	28.65	26.34	24.72	27.26	25.7
2	5.93	10.81	15.66	9.77	13.4
3	1.26	4.5	9.68	4.3	7.5
4	0.47	2.32	5.73	2.51	3.59
5	0.16	1.27	4.48	1.63	2.17
6	0.03	0.7	3.6	0.66	1.11
7	0.26	0.46	2.14	0.34	1.08
8		0.14	1.45	0.39	3.97
9		0.18	3.52	0.13	0.52
10		0.06		0.08	
11		0.06		0.1	
12		0.03		0.05	
13		0.02		0.02	
14		0.03		0.02	
15		0.02		0.02	
16				0.02	
17					

Table 39: Distribution of people participating in more than 1 group in Developing countries by wave. The first column refers to the number of groups and associations attended by each individual, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

developed countries					
wave	1	2	3	4	5
n. of groups	percentage of active membership				
0	78.1	72.61	55.62	66.16	50.39
1	15.82	15.73	23.84	18.97	26.46
2	4.08	6.33	10.64	7.49	13.21
3	1.21	2.67	4.95	3.62	5.87
4	0.42	1.23	2.44	1.76	2.56
5	0.18	0.61	1.37	1.01	1.06
6	0.07	0.3	0.69	0.43	0.32
7	0.01	0.17	0.36	0.18	0.11
8	0.05	0.11	0.08	0.15	0.03
9	0.02	0.1	0.01	0.07	
10	0.04	0.03		0.07	
11		0.03		0.03	
12		0.02		0	
13		0.02		0.02	
14		0.02		0.02	
15		0		0.02	
16		0.02			
17					

Table 40: Distribution of people performing unpaid voluntary work in more than 1 group in Developed countries by wave. The first column refers to the number of groups and associations attended by each individual, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

developing countries					
wave	1	2	3	4	5
n. of groups	percentage of active membership				
0	80.51	70.74	53.96	55.54	62.58
1	16.21	19.03	23.05	25.55	21.74
2	2.31	5.44	11.26	9.04	8.9
3	0.5	2.42	6.37	4.25	3.82
4	0.34	1	3.14	2.04	1.45
5	0.1	0.46	1.54	1.11	0.8
6	0.03	0.3	0.49	0.48	0.52
7		0.13	0.1	0.56	0.1
8		0.14	0.07	0.34	0.1
9		0.06	0.01	0.34	
10		0.05		0.18	
11		0.08		0.18	
12		0.02		0.23	
13		0.05		0.1	
14		0.05		0.05	
15		0.02		0.02	
16		0.02			
17					

Table 41: Distribution of people performing unpaid voluntary work in more than 1 group in Developing countries by wave. The first column refers to the number of groups and associations attended by each individual, while the following ones refer to each wave separately. Blank rows means that the variable wasn't observed in the specific wave.

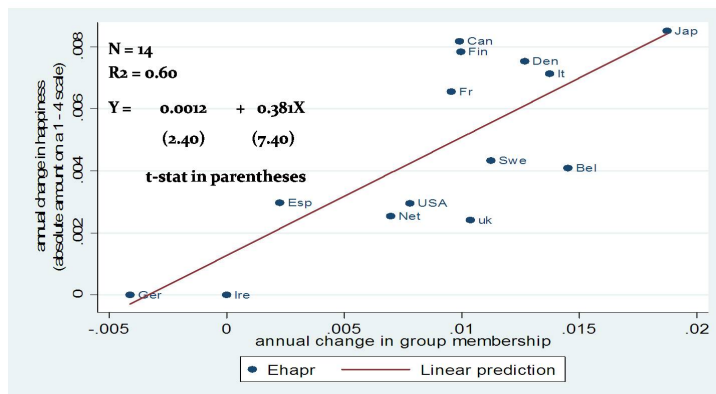


Figure 1: Correlation between trends of happiness and membership in groups or associations in 14 developed countries. OLS regression model with robust standard errors.

Figure 2: Correlation between trends of happiness and membership in groups or associations in 5 developing countries. OLS regression model with robust standard errors.

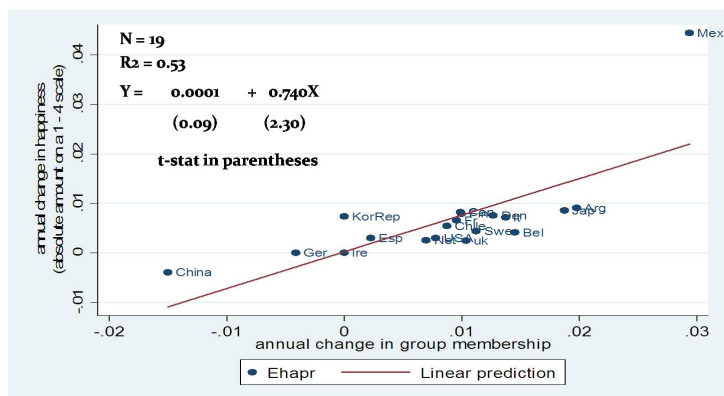


Figure 3: Correlation between trends of happiness and membership in groups or associations in 19 developed and developing countries. OLS regression model with robust standard errors.

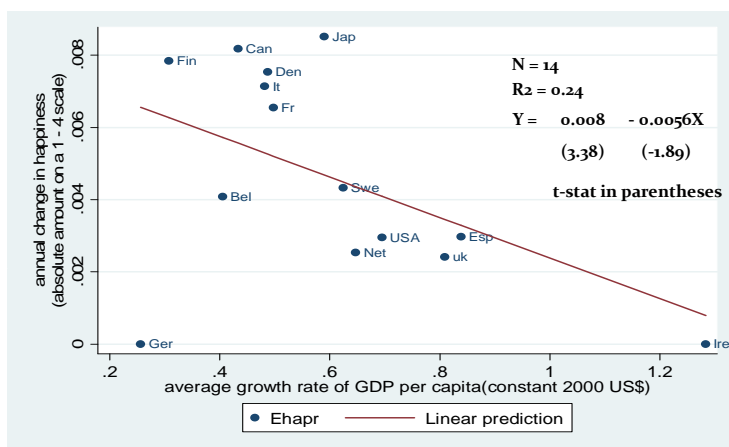


Figure 4: Correlation between trends of happiness and GDP growth rates in 14 developed countries. OLS regression model with robust standard errors.

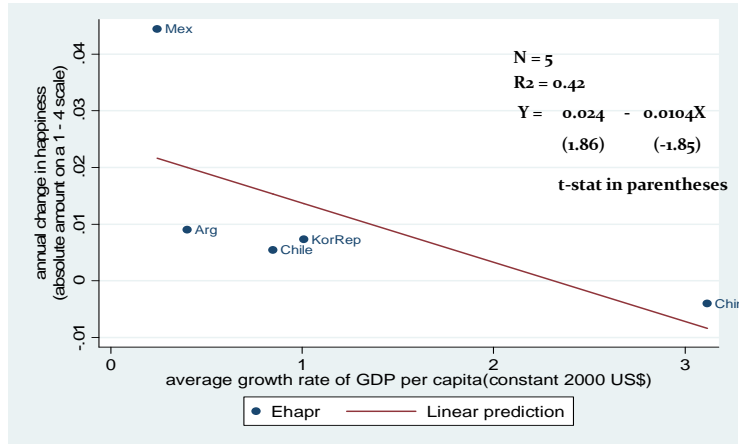


Figure 5: Correlation between trends of happiness and GDP growth rates in 5 developing countries. OLS regression model with robust standard errors.

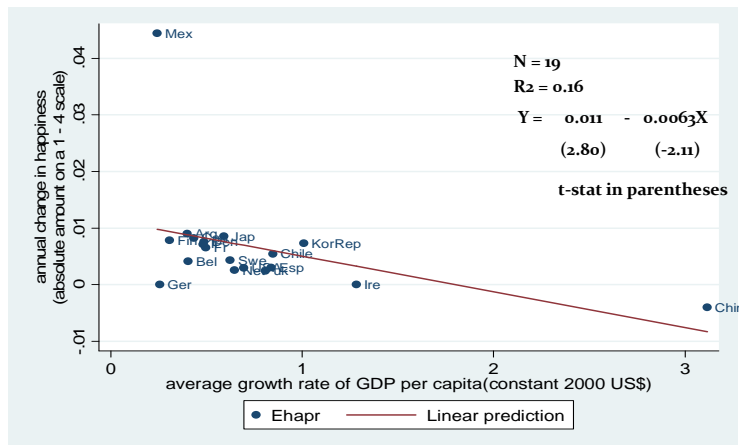


Figure 6: Correlation between trends of happiness and GDP growth rates in 19 developed and developing countries. OLS regression model with robust standard errors.

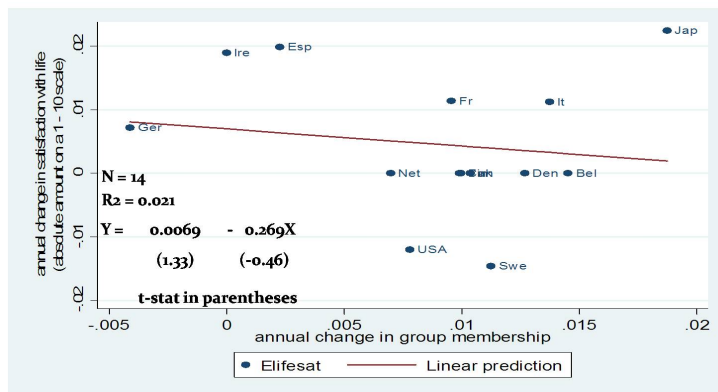


Figure 7: Correlation between trends of satisfaction with life and trends of membership in groups or associations in 14 developed countries. OLS regression model with robust standard errors.

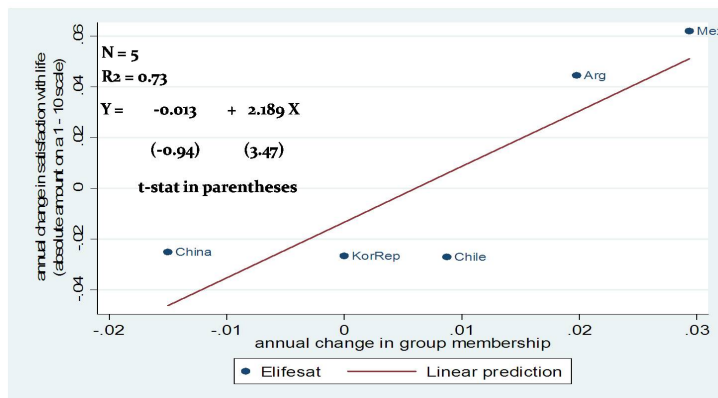


Figure 8: Correlation between trends of satisfaction with life and trends of membership in groups or associations in 5 developing countries. OLS regression model with robust standard errors.

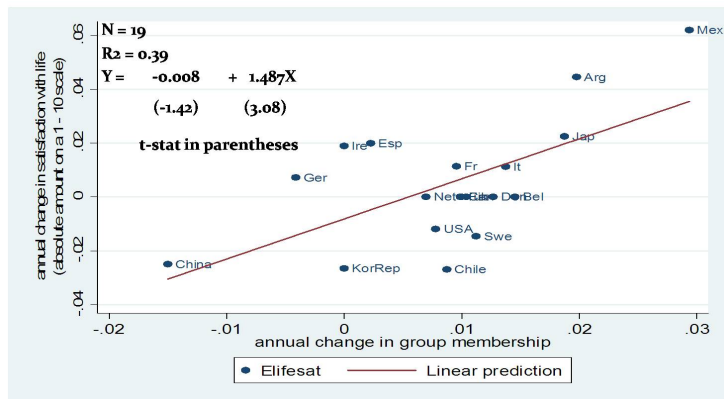


Figure 9: Correlation between trends of satisfaction with life and trends of membership in groups or associations in 19 developed and developing countries. OLS regression model with robust standard errors.

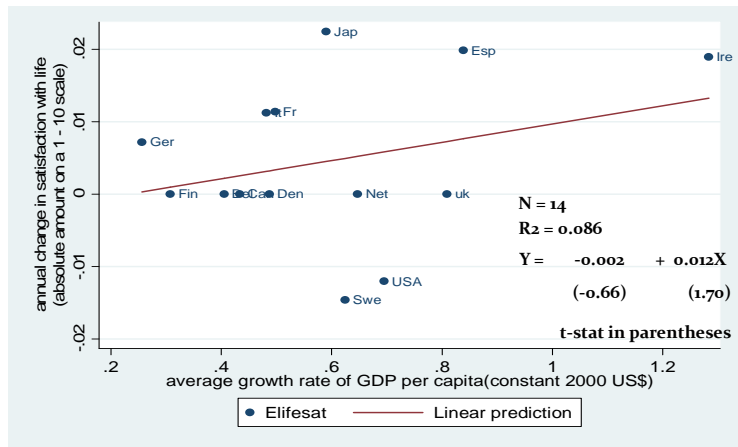


Figure 10: Correlation between trends of satisfaction with life and GDP growth rates in 14 developed countries. OLS regression model with robust standard errors.

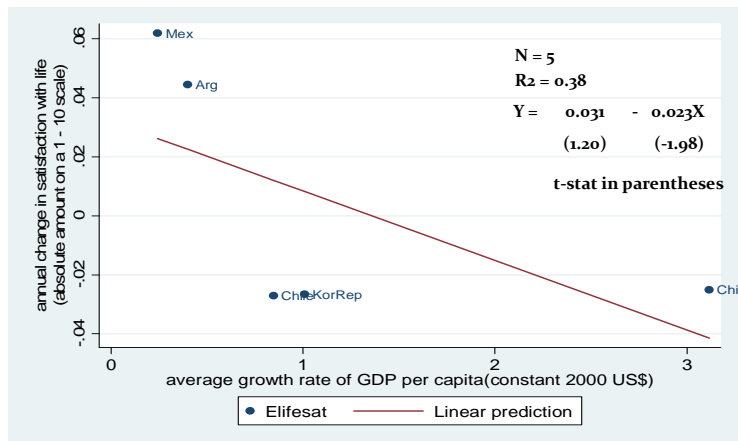


Figure 11: Correlation between trends of satisfaction with life and GDP growth rates in 5 developing countries. OLS regression model with robust standard errors.

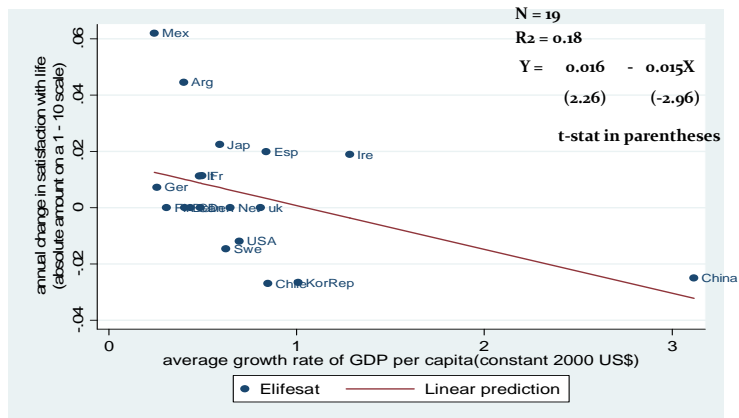


Figure 12: Correlation between trends of satisfaction with life and GDP growth rates in 19 developed and developing countries. OLS regression model with robust standard errors.

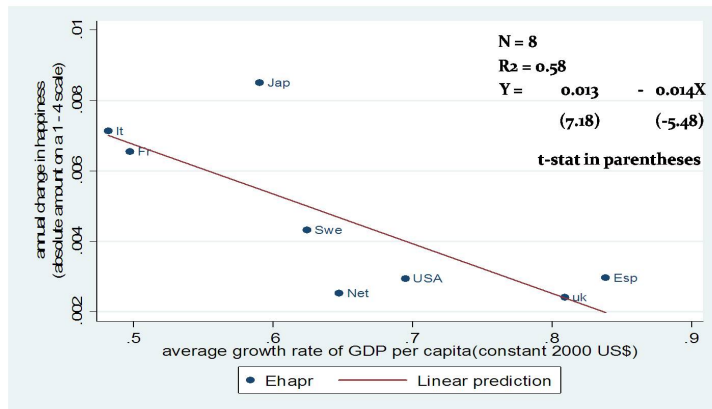


Figure 13: Longer term relationship between trends of happiness and GDP growth rates in 8 developed countries. OLS regression model with robust standard errors.

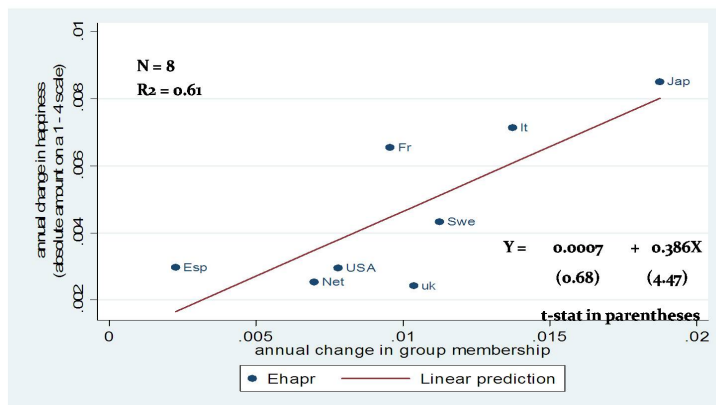


Figure 14: Longer term relationship between trends of happiness and trends of membership in groups or organizations in 8 developed countries. OLS regression model with robust standard errors.

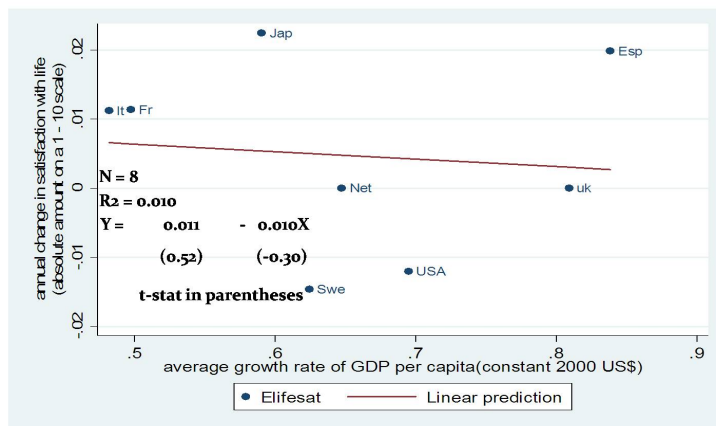


Figure 15: Longer term relationship between trends of satisfaction with life and GDP growth rates in 8 developed countries. OLS regression model with robust standard errors.

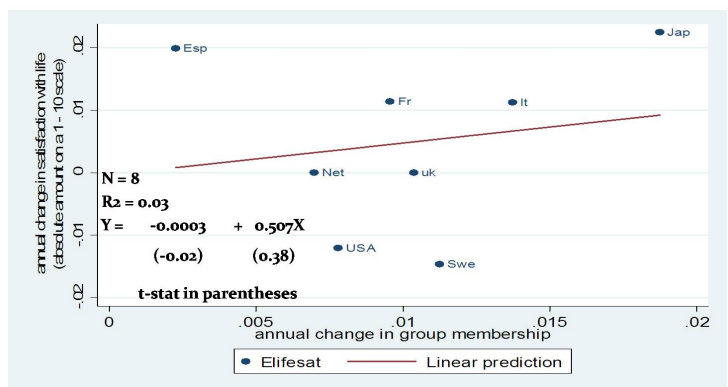


Figure 16: Longer term relationship between trends of satisfaction with life and trends of membership in groups or organizations in 8 developed countries. OLS regression model with robust standard errors.

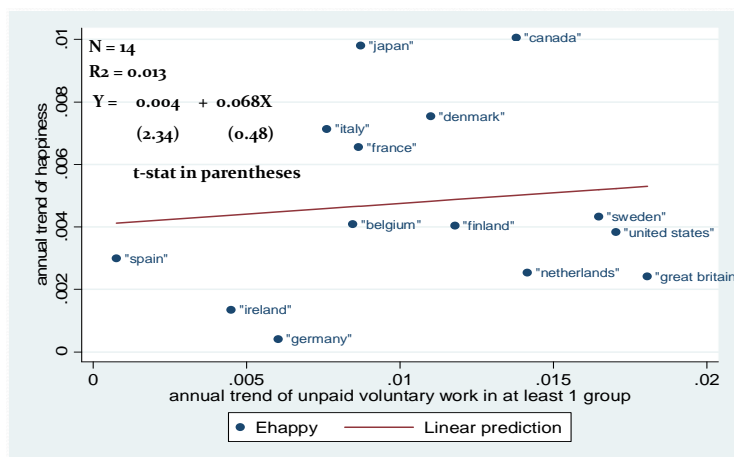


Figure 17: Correlation between trends of happiness and trends of unpaid voluntary work in 14 developed countries. OLS regression model with robust standard errors.

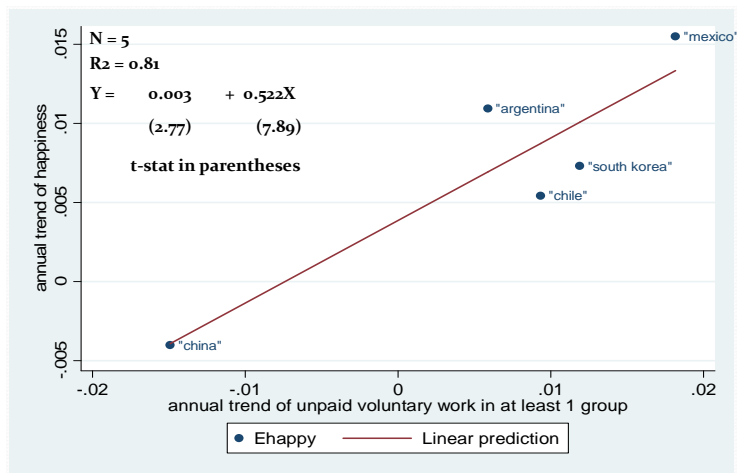


Figure 18: Correlation between trends of happiness and trends of unpaid voluntary work in 5 developing countries. OLS regression model with robust standard errors.

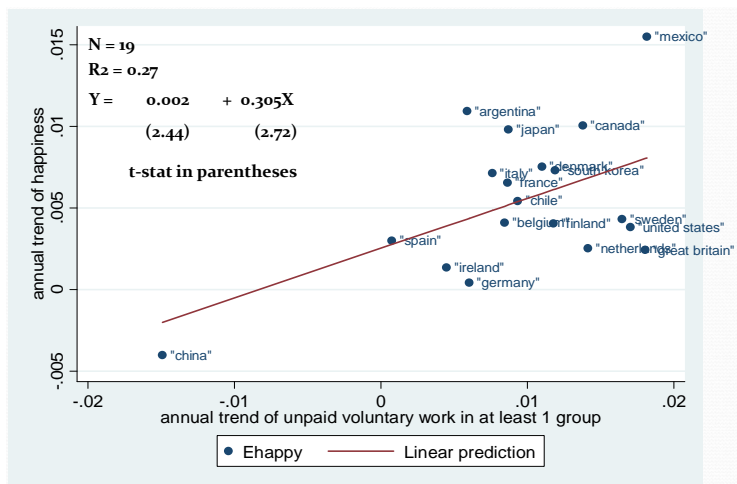


Figure 19: Correlation between trends of happiness and trends of unpaid voluntary work in 19 developed and developing countries. OLS regression model with robust standard errors.

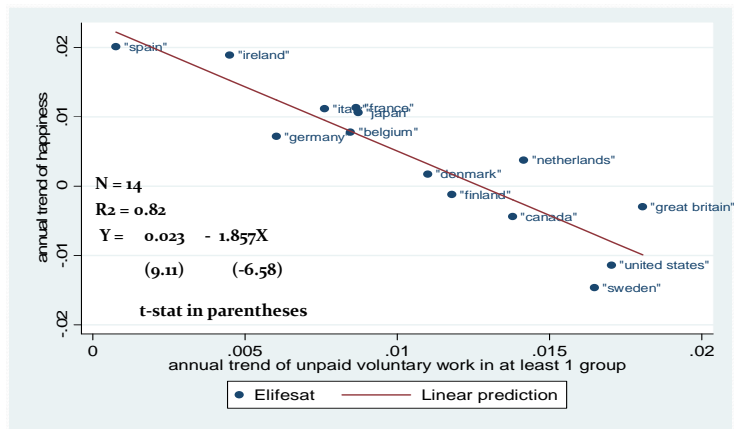


Figure 20: Correlation between trends of satisfaction with life and trends of unpaid voluntary work in 14 developed countries. OLS regression model with robust standard errors.

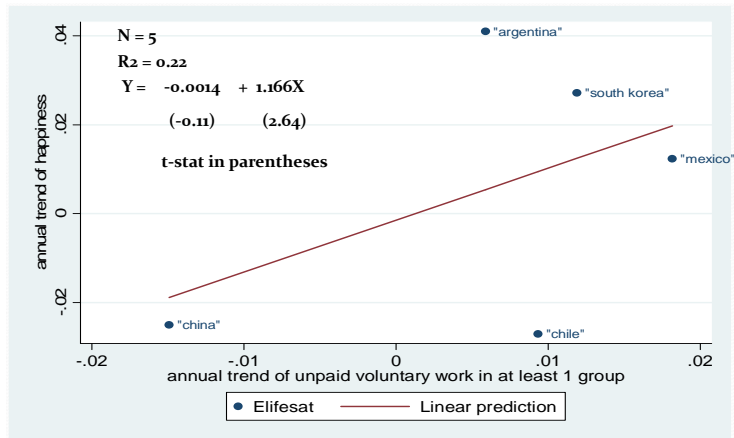


Figure 21: Correlation between trends of satisfaction with life and trends of unpaid voluntary work in 5 developing countries. OLS regression model with robust standard errors.

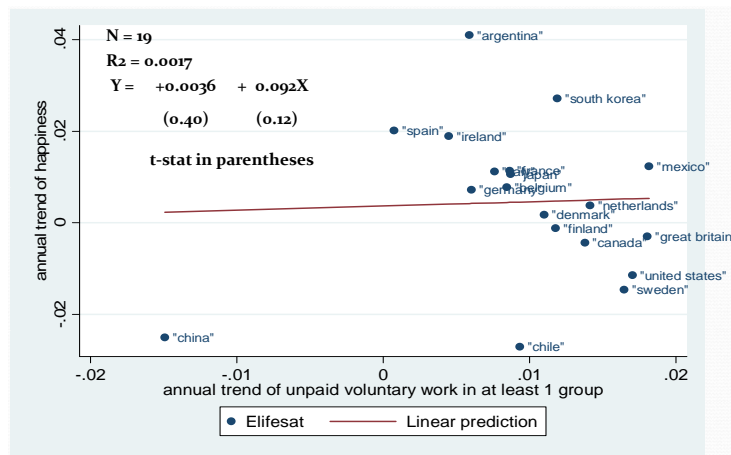


Figure 22: Correlation between trends of satisfaction with life and trends of unpaid voluntary work in 19 developed and developing countries. OLS regression model with robust standard errors.

Table 42: List of countries included in the sample

References

- R.J. Barro. Determinants of economic growth: A cross-country empirical study. *NBER Working Paper*, (5698), 1996.
- S. Bartolini and L. Bonatti. Endogenous growth, decline in social capital and expansion of market activities. *Journal of Economic Behavior and Organization*, 67(3):pp. 917 – 926, 2008.
- S. Bartolini, E. Bilancini, and M. Pugno. American declines in social capital and happiness: is there any linkage? *University of Siena*, 2008. mimeo.
- S. Bartolini, E. Bilancini, and F. Sarracino. Predicting the trend of well-being in Germany: How much do comparisons, adaptation and sociability matter? *University of Siena*, 2009. mimeo.
- L. Becchetti, A. Pelloni, and F. Rossetti. Relational goods, sociability and happiness. *Kyklos*, 61(3)(343 - 363), 2008.
- L. Becchetti, E. Giachin Ricca, and A. Pelloni. The 60es turnaround as a test on the causal relationship between sociability and happiness. *Econometrica Working Papers wp07*, *Econometrica*, 2009.
- D.G. Blanchflower. International evidence on well-being. *IZA Discussion Papers*, (3354), February 2008.
- L. Bruni and L. Stanca. Watching alone: relational goods, television and happiness. *Journal of Economic Behavior and Organization*, 65 (3-4):pp. 506 – 528, 2008.
- A. Deaton. Income, health, and well-being around the world: Evidence from the Gallup World Poll. *Journal of Economic Perspectives*, pages 53 – 72, 2008.
- R.A. Easterlin and L. Angelescu. Happiness and growth the world over: Time series evidence on the happiness-income paradox. *IZA Discussion Paper*, (4060), March 2009.
- B.S. Frey and A. Stutzer. *Happiness and Economics: How The Economy and Institutions Affect Well-Being*. NJ: Princeton University Press., Princeton, 2002.
- J.F. Helliwell. Social capital, the economy and wellbeing. In *The Review of Economic Performance: The Longest Decade: Canada in the 1990s*. Centre for the Study of Living Standards, Ottawa, Canada, 2001.
- J.F. Helliwell. Well-being, social capital and public policy: what’s new? *The Economic Journal*, 116, March 2006.
- J.F. Helliwell and R.D. Putnam. The social context of well-being. *Philosophical Transactions*, 359(1449):pp. 1435 – 1446, 2004.
- F. Hirsch. *Social limits to growth*. Harvard University Press, Cambridge, Mass., 1976.
- R. Inglehart. Faith and freedom: traditional and modern ways to happiness. *University of Michigan*, mimeo, 2009.

- S. Knack and P. Keefer. Does social capital have an economic payoff? a cross country investigation. *Quarterly Journal of Economics*, 112(4)(pp. 1251 - 1288), 1997.
- R. Layard, G. Mayraz, and S. Nickell. Does relative income matter? are the critics right? *CEP Discussion Papers*, (dp0918), 2009.
- C. Lim and R. Putnam. Praying alone is no fun: religion, social networks and subjective well-being. *Mimeo*, 2009.
- K. Polanyi. *The great transformation*. Boston: Beacon, 1968.
- N. Powdthavee. Putting a price tag on friends, relatives and neighbours: using surveys of life satisfaction to value social relationships. *The Journal of Socio-Economics*, 37(4)(1459 - 1480), 2008.
- R. Putnam, L. Leonardi, and R. Nanetti. *Making democracy work: civic traditions in modern Italy*. Princeton University Press, Princeton, New Jersey, 1993.
- R.D. Putnam. *Bowling alone. The collapse and revival of American community*. Simon Schuster, New York, 2000.
- D. Rodrik. Where did all the growth go? external shocks, social conflict and growth collapses. *NBER Working Paper*, (6350), 1997.
- B. Stevenson and J. Wolfers. Economic growth and subjective well-being: re-assessing the Easterlin paradox. *IZA DP*, (3654), August 2008.
- P.F. Whiteley. Economic growth and social capital. *Political Studies*, 48:pp. 443 - 466, 2000.