

Trust, Happiness, and Pro-Social Behavior

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Abstract

This paper combines several large-scale surveys with different identification strategies to shed new light on the determinants of cooperative behavior. We provide evidence indicating that the well-being maximizing level of trust is above the income maximizing level. Higher trust is also linked to more cooperative and pro-social behaviors, including the private provision of global public goods such as climate change mitigation. Consistent with “warm glow” theories of pro-social behavior, our results show that individuals may enjoy being more cooperative than what would lead them to maximize their income, which is reflected in higher levels of well-being.

JEL-Codes: Q500, H410, I310, D640.

Keywords: cooperation, generalized trust, pro-social behaviour, pro-environmental behavior, well-being.

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“It is better to suffer wrong than to do it, and happier to be sometimes cheated than not to trust.” - Samuel Johnson

1 Introduction

One of the most important contributions of experimental economics has been to document the fact that in real-life situations people tend to be more cooperative than theory allowed (Dawes and Thaler, 1988; Ostrom, 2000). Although cooperative behavior was considered an “anomaly” at first, the idea that the concept of *homo economicus* only very imperfectly explains human behavior is nowadays widely accepted in the discipline, as recognized by the Nobel prizes awarded to Elinor Ostrom and Richard Thaler. Yet, cooperative behavior still attracts the attention of many economists and social scientists, who try to expand our understanding of its drivers and rationales (Tomasello, 2009; Sigmund, 2010).

Recently, a study by Butler et al. (2016) identified an inverse U-shape relationship between generalized trust and income, according to which each society has an income maximizing level of trust. Individuals with too little trust, thus located to the left of the income maximizing level of trust, may miss out on profitable opportunities. Individuals being too trusting – i.e. whose trust beliefs are above the income maximizing level – may have others taking advantage of them. While the former may not realize that they are missing out on additional income, people with very high trust beliefs should realize that they are being “overly trusting”, making their “excessively” cooperative behavior particularly intriguing.

Hence, in this paper, we are especially interested in the mass of “overly trusting” individuals that Butler et al. (2016) documented. We posit and show that the well-being maximizing level of trust is consistently higher than the income maximizing

level of trust. We show, with different identification strategies, that higher trust tends to lead to higher well-being, and not necessarily the other way around. Rather than just being the product of individual errors, e.g. due to a false consensus about the average trustworthiness of others (see Butler et al., 2015, 2016), high levels of trust can be rationalized if we allow such individuals to consider their own well-being rather than just their potential income. Further, we find that higher trust relates to a higher proclivity to engage in pro-social and pro-environmental behavior.

Our results are consistent with the idea that individuals may maximize along dimensions other than income, with corresponding implications for the measurement of prosperity and the evaluation of economic policy more generally (Diener, 2000; Kahneman and Krueger, 2006; Benjamin et al., 2012). Our results are also consistent with a warm glow of pro-social behavior (Andreoni, 1990). Individuals may enjoy being more cooperative than what would exactly lead them to maximize their income and that is reflected in their higher levels of well-being. As far as pro-environmental behavior is concerned, our results are consistent with evidence showing that lessons on cooperative behavior from the local commons (Ostrom, 1990) may also extend to the global commons (see Carattini et al., 2019).

Our multilayered approach is as follows. First, we replicate the original finding of Butler et al. (2016) with extended data from the European Social Survey as well as richer data for Sweden and Switzerland from the Society Opinion Media and the Swiss Household Panel, respectively. With all datasets, we identify an income maximizing level of trust, as well as an important mass of “overly trusting” individuals to the right of the maximum. Second, with each of the three datasets, we analyze the trust-happiness relationship. We find that happiness maximizing trust lies beyond the level a pure income maximizer would likely choose. The positive relationship between trust and subjective well-being is robust to many specification changes. To further

support our results, we show that considerable exogenous shocks to happiness have no discernible effects on trust, by comparing individuals who lost their spouse with similar individuals who did not. Third, with the three datasets, we investigate the mechanisms behind the trust-happiness relationship. Building on the considerable body of evidence on the existence of a “warm glow” of contributing to a public good, we hypothesize that one important channel through which trust affects well-being is via pro-social behaviors. Our data are consistent with this channel. In particular, we document the role of trust as a vital component in fostering cooperative behavior and attitudes. Analyzing a wide range of pro-social and pro-environmental behaviors from the three surveys, including voluntary contributions to global public goods such as climate change mitigation, we provide evidence of a strongly cooperative role of high-trust individuals. We further verify our findings with an instrumental variable approach based on a measure of inherited trust for individuals with migration background (inspired by Algan and Cahuc, 2010) as an instrument for trust. Finally, we provide a battery of additional robustness tests, supporting our results.

In sum, our paper provides an explanation for why an important mass of individuals displays levels of trust that exceed the income maximizing optimum: they are happier. If anything, our findings raise the question of why we observe that some individuals are willing to forgo a happiness bump to maximize income. Our paper also points to an important mechanism driving our results: high-trust individuals are more likely to engage in pro-social behaviors, from which they may derive extra happiness through the warm glow of giving. Our findings support calls for measures aimed at promoting trust in new generations, which may not only be beneficial for society but also for the individuals who would have been educated to trust more (Tabellini 2008; Dixit and Levin 2017). Further, our findings point to the importance of leveraging people’s proclivity to engage in pro-social behaviors and enjoyment in doing so, to

further address local and global issues requiring pro-sociality and collective action.

Our paper contributes to four different strands of literature. First, we add to the literature analyzing the determinants of prosperity and in particular the role of informal institutions such as trust. Seminal contributions from political science and sociology (Fukuyama, 1995; Putnam, 2000) have stressed the importance of trust, as well as social capital more generally, for economic prosperity. A large economics literature subsequently added quantitative evidence to these early studies. Trust is positively associated with economic development across countries (Knack and Keefer, 1997; Zak and Knack, 2001), and the effect persists if a measure of inherited trust or historical information on literacy rates and political institutions are used as exogenous trust shifters to account for endogeneity concerns (Algan and Cahuc, 2010; Tabellini, 2010; Algan and Cahuc, 2014). Other beneficial impacts of trust suggested by the literature relate to financial development, stock market participation, and entrepreneurship (Guiso et al., 2004, 2006, 2008; Algan and Cahuc, 2014).

The second strand of literature relates to the role of trust in collective action. Early work has highlighted the role of trust in contributing to the successful management of common pool resources and the prevention of the tragedy of the commons (Ostrom, 1990). Additional evidence has been provided by studies leveraging surveys, field, and lab experiments (see e.g. Uslaner, 2002; Gächter et al., 2004; Ostrom, 2009; Poteete et al., 2010). A common theme in these studies is that people tend to cooperate to a much higher degree than standard economic theory based on a narrow definition of individual rationality would predict (Sen, 1977; Dawes and Thaler, 1988; Ostrom, 2000). Such “anomalous” levels of cooperation have also been observed in the climate commons (see Carattini et al., 2019, for a review).

The third strand of literature focuses on the determinants of pro-social behavior and their interlinkages with subjective well-being through forms of kindness. In par-

ticular, we refer to work showing that pro-social behavior tends to increase subjective well-being, underpinning the theory of the “warm glow of giving” (Andreoni, 1990). In such a framework of impure altruism, the act of contributing to a public good directly enters the utility function, which improves the ability of economic models to explain patterns from experimental data and real-life observations (Kahneman and Knetsch, 1992; Andreoni, 1993; Ribar and Wilhelm, 2002; Andreoni, 2006; Andreoni and Payne, 2013). Further, we also relate to studies aiming at rationalizing masses of altruistic behavior, which potentially dominate in number selfish money-maximizers (Andreoni and Miller, 2002), and showing that while individuals understand free riding, they intentionally choose to act pro-socially (Andreoni, 1995). The concept of a “warm glow of giving” is also consistent with additional studies using brain imaging to study brain reactions to potentially altruistic decisions, for instance during an ultimatum game, or studies tracking hormone production (Sanfey et al., 2003; Zak et al., 2004), which physiologically measure the extent of “warm glow”. Other studies, correlational in spirit, have shown positive associations between various measures of social capital and reported well-being (Helliwell, 2003; Bjørnskov, 2003; Helliwell and Wang, 2011; Helliwell et al., 2018).

The fourth strand of literature focuses on the measurement of well-being, as well as on its importance compared to other indicators of prosperity. While material payoff maximization remains a good proxy for human behavior in a wide range of settings, there is increasing evidence highlighting the limits of relying only on economic motives in understanding how individuals maximize utility, and the related important implications for policymaking and the measurement of prosperity (Easterlin, 2003; Kahneman et al., 2006). In particular, recent contributions have emphasized that well-being, along with other non-pecuniary outcomes, is deserving of a greater role in the assessment of how society fares as a whole (Frank, 2005; Kahneman and Krueger,

2006; Layard, 2006; Frank, 2008; Fleurbaey, 2009; Jones and Klenow, 2016; Stiglitz et al., 2018). This body of work relies largely on survey questions, which have been shown in several contexts to provide reliable proxies for well-being (e.g. Frey and Stutzer, 2002; Frey, 2008; Kahneman and Krueger, 2006; Diener et al., 2009, 2018).

2 Data and empirical strategy

In what follows, we present our multilayered approach, which builds on three complementary surveys, providing rich data and a diverse selection of respondents, and includes two different identification strategies providing additional robustness to our results. Our three data sources are as follows.

First, we use data from the European Social Survey (ESS), a large-scale biennial cross-section of European countries. The ESS provides us with a large sample size, representing a vast underlying population covering many European countries. It also allows us to directly compare our results with those in Butler et al. (2016).

Second, we use data from the Swiss Household Panel (SHP), a rich panel of Swiss residents. The Swiss data are especially useful for the following reasons. Switzerland is a country with relatively high average trust, where about 30% of respondents in the sample report trust levels of 8 or higher. This yields plenty of observations in this upper area of the trust distribution, which is important for the purposes of our study. Swiss data are also ideally suited for our identification strategies, as they contain both data on spousal deaths (from a country with an extremely low murder rate of about 0.5 per 100,000 residents, see SFOS, 2020) as well as a very large number of individuals with a migration background. At the population level, about 38% of Swiss residents aged 15 or older have a migration background,¹ providing suitable conditions for the

¹See <https://www.bfs.admin.ch/bfs/en/home/statistics/population/migration-integration/by->

implementation of the identification strategy relying on inherited trust. Further, the SHP covers a wide variety of pro-social and pro-environmental behaviors. In the SHP, survey questions on donations do not only measure the extensive margin, i.e. whether people donate to charities or not, but also the intensive margin, i.e. the extent of their donations. In Switzerland, more than half of the donations are targeted to foreign countries (ZEWO, 2019), which allows us to consider them as private provisions of both local and global public goods. Switzerland is also well-known for its semi-direct democratic tradition, where voting several times a year on a wide variety of issues is the norm. On average, Swiss people vote on about 10 issues per year at the federal level, to which one should add cantonal and municipal ballots (Kriesi and Trechsel, 2008). This provides us with another measure of civic engagement. Finally, the SHP contains more fine-grained income data than comparable surveys, which is useful for our replication of Butler et al. (2016).

The third data source we consider is the Swedish Society Opinion Media (SOM) survey, an annual cross-section of Swedish residents. The main specificity of the SOM data is that it contains an extensive set of pro-social outcomes, including one of the broadest ranges of environmentally-friendly behaviors and attitudes among comparable surveys.

Building on our baseline results, for which we test consistency over the three data sources, we also employ two specific identification strategies, which we implement with the SHP data. First, following Liberini et al. (2017), we exploit exogenous negative shocks to well-being due to the death of a spouse to further isolate our relationship of interest. Second, following Algan and Cahuc (2010), we implement an instrumental variable approach leveraging the variation in inherited trust endowments among individuals with migration background, with the aim of providing additional [migration-status.html](#) (last accessed on June 18, 2020).

evidence on the causal nature of the observed relationship between trust and well-being as well as between trust and cooperative outcomes.

In what follows, we briefly describe the ESS and SHP data. Further details are presented in Appendix A and B, respectively. The SOM data are presented in Appendix C. Table 1 contains descriptive statistics of the main variables in the ESS and SHP. From the ESS, we use waves 1-8, spanning 2002-2016. In the SHP, trust is available from 2002 onward, leaving us with waves 4-19, covering 2002-2017. We remove all observations with missing information on one or more of our baseline controls and observations of minors. In the ESS data baseline controls include age, sex, marital status, household income, years of education, unemployment status, labor force participation, reported altruism, risk tolerance, whether one resides in a big or small city (or neither), and whether the father only has basic education. In the SHP data, the corresponding outcome variables are age, sex, education, and household income.

In both the ESS and the SHP, trust is based on a question of the form “Do you think most people can be trusted or you can’t be too careful?”, which goes back to Rosenberg (1956). The answer is determined by choosing a value on an integer 0-10 scale ranging from 0 (“you can’t be too careful”) to 10 (“most people can be trusted”). Based on this question, our concept of trust consists in what the literature considers to be “generalized trust” and captures individual beliefs about the trustworthiness of others, including strangers. It represents one of the main pillars of social capital (bridging social capital) and is conceptually distinguished from “particularized trust” (bonding social capital), which is directed at a much smaller number of people with which an individual is more closely associated, for example through kinship (see Putnam, 2000; Uslaner, 2002). Evidence from both lab experiments and field studies, including the famous “lost wallet experiment”, show

that the survey-based measure is closely linked to what economists try to capture when measuring trust and trustworthiness (Knack and Keefer, 1997; Glaeser et al., 2000; Poteete et al., 2010).

Subjective well-being is captured by two main items in the ESS data, which we term “happiness” and “life satisfaction”: (i) “How happy are you?”, ranging from 0 (“extremely unhappy”) to 10 (“extremely happy”); and (ii) satisfaction with life as a whole, ranging from 0 (“extremely dissatisfied”) to 10 (“extremely satisfied”). The SHP primarily focuses on life satisfaction, asking about the satisfaction with life in general, ranging from 0 (“not at all satisfied”) to 10 (“completely satisfied”). For comparability reasons across datasets, we focus on reported life satisfaction, but the qualitative results are independent of that choice (see also Section 3.3).

For our baseline estimates, we use a regression specification which includes a set of 10 trust dummies. This avoids any a priori imposition of a specific functional form between trust and the outcome variable. Our baseline estimates are supplemented with two additional identification strategies. First, we use the death of a spouse as an exogenous shock on well-being to further isolate the relationship of interest. Second, we employ an instrumental variable (IV) strategy based on the notion that trust has a sizable inherited component dependent on the country of origin of immigrants. This identification strategy, which we adapted to our context from Algan and Cahuc (2010), relies on the following intuition. Empirical studies have shown that trust has considerable geographic variation, is highly persistent, and a sizable part is passed on by their parents to their offspring (Bjørnskov, 2007; Algan and Cahuc, 2010, 2014). The prevailing trust level in the country of origin is therefore correlated with the “trust endowments” of people with migration background - either via their parents or because their socialization took place in the country of origin some decades ago. We implement the IV approach as follows. First, we estimate inherited trust as the shared

Table 1: Summary statistics - ESS and SHP

(a) ESS

Statistic	N	Mean	St. Dev.	Min	Max
Trust	231,844	5.154	2.447	0	10
Happiness	230,974	7.285	1.964	0	10
Life satisfaction	231,844	6.969	2.253	0	10
Age	231,844	49.106	17.441	18	99
Male	231,844	0.473	0.499	0	1
Married	231,844	0.554	0.497	0	1
Log of household income	231,844	9.784	1.075	6.068	12.374
Education (years)	231,844	12.639	4.100	0	54
Potential experience	231,844	30.478	19.017	0	92
Father basic education	231,844	0.330	0.470	0	1
Unemployed	231,844	0.055	0.227	0	1
Out of labor force	231,844	0.390	0.488	0	1
Big city	231,844	0.335	0.472	0	1
Small city	231,844	0.303	0.460	0	1
Risk tolerance	231,844	3.051	1.428	1	6
Altruism	231,844	5.078	0.899	1	6
Religiosity	230,655	4.702	3.006	0	10
Health	231,692	3.788	0.917	1	5
Immigrant	231,844	0.091	0.288	0	1
Crime victim	231,364	0.180	0.384	0	1

(b) SHP

Statistic	N	Mean	St. Dev.	Min	Max
Trust	111,196	6.154	2.253	0	10
Life satisfaction	111,196	8.040	1.398	0	10
Log of net personal income	106,668	10.634	0.965	2.303	15.521
Log of net household income	111,195	11.510	0.589	4.605	15.638
Age	111,196	49.269	17.302	18	100
Male	111,196	0.443	0.497	0	1
Unemployed	111,196	0.016	0.127	0	1
Out of labor force	111,196	0.294	0.456	0	1
Married	111,196	0.594	0.491	0	1
Divorced	111,196	0.101	0.301	0	1
Full time	111,132	0.347	0.476	0	1
In training	111,132	0.080	0.271	0	1
Household size	111,196	2.771	1.322	1	12
Number of children	109,875	1.559	1.319	0	14
Health	111,196	4.029	0.655	1	5
Education (years)	111,196	13.464	3.065	8	21
Potential experience	111,196	29.812	17.590	0	84
Death of relative	111,142	1.772	0.420	1	2
Charity member	71,963	0.337	0.596	0	2
Donated	21,920	0.677	0.467	0	1
ln(Donation)	14,166	5.889	1.316	0	12.429
Voluntary work	86,400	0.472	0.499	0	1
Voting frequency	61,709	7.720	3.054	0	10
Envir. org. member	71,973	0.222	0.469	0	2
Buy eco-friendly	21,792	5.786	2.544	0	10
Buy seasonal fruit/veg.	21,863	7.514	2.221	0	10
More envir. spending	21,530	0.603	0.548	-1	1
Environment > growth	65,648	0.345	0.742	-1	1

trust component by country of origin for three different age cohorts of individuals with migration background in our sample using a series of auxiliary regressions. Then, in a second step, we use our estimates for inherited trust as an instrument for trust in a two-stage least squares model to examine the effect of trust on the outcomes of interest.

Additional details about our empirical approach are provided in Appendix Sections A.2, B.2, and C.2.

3 Results

This section is organized as follows. First, we replicate the original results by Butler et al. (2016) on the trust-income relationship with all three datasets. Then, we focus on our main relationship of interest, between trust and well-being, where we complement our baseline results with two additional identification strategies which exploit exogenous variation due to the death of a spouse and varying endowments of inherited trust. Finally, we explore an important channel underlying the relationship between trust and well-being, with the goal of shedding light on the mechanisms behind our relationship of interest. We then proceed with a battery of robustness tests on all these findings.

3.1 Trust, income, and well-being

In what follows, we first present aggregate evidence on the trust-income and trust-well-being relationship for a wide variety of European countries from the ESS. Subsequently, we examine these questions leveraging the rich data from the SHP, which also allows us to take a closer look at the implications of high levels of trust for a wider range of cooperative and pro-social outcomes. We also proceed with the same

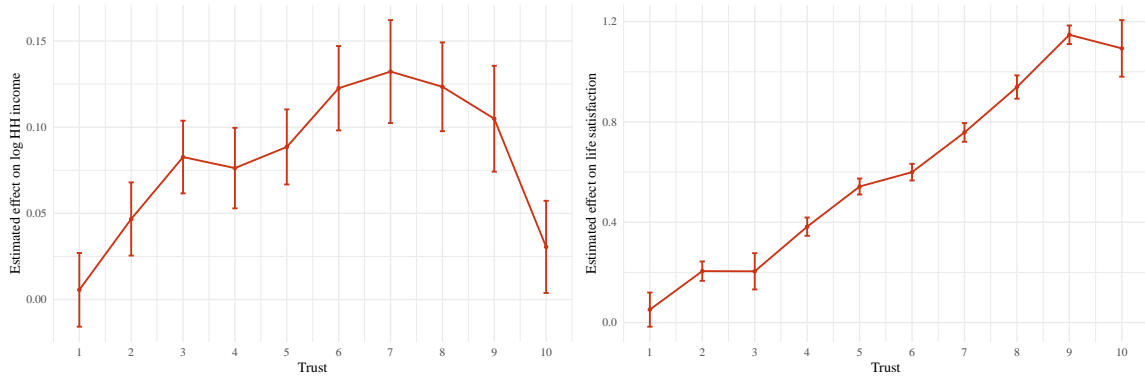
analyses using SOM data. Estimates from the SOM are presented in Appendix C.3.

Based on data from the ESS, Figure 1a displays effects of trust (on a 0-10 scale) on household income (in logs) and reported life satisfaction (see Table A.3 in Appendix A.3 for more details). To put these results into context, it is worth noting that the median trust in the ESS is 5.

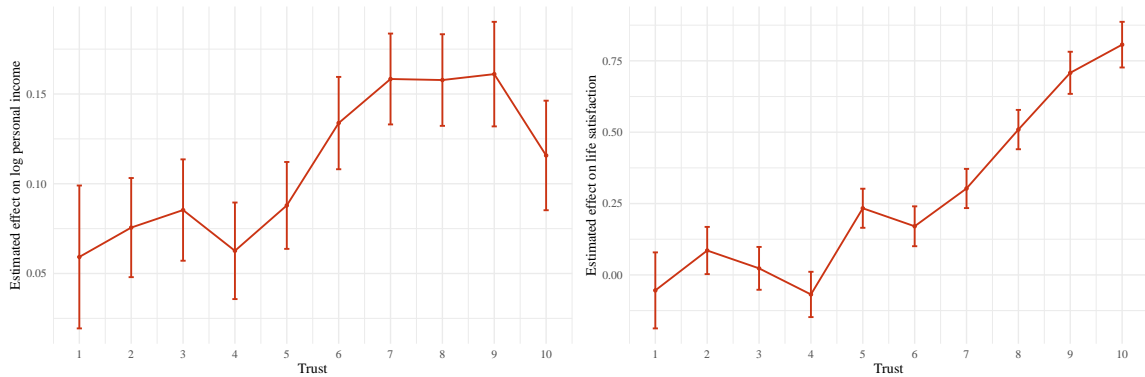
The left panel of Figure 1a highlights two stylized facts. First, there is a hump-shaped relationship between trust and income, in line with earlier findings, which were obtained with a smaller number of ESS rounds (Butler et al., 2016). Second, a sizable share of respondents exhibits trust levels above the income maximizing level suggested by the point estimates on display. Roughly 18.5% of respondents in our sample report trust levels of 8 or higher. Deviating from prevailing levels to this extent does not yield any benefits in terms of income, and likely increases the chance of being taken advantage of, as indicated by the downward sloping segment of the trust-income curves (and as suggested by IV and experimental evidence in Butler et al., 2015, 2016).

One possible interpretation of this observation is that high-trust individuals are simply mistaken in their choice to confide in others either by misjudging the trustworthiness of their peers (a “false consensus”, see e.g. Butler et al., 2015) or a lack of awareness of the extent of the repercussions in terms of income (or both). The amount of such mistakes, however, would have to be very high to produce the observed distribution of trust, suggesting that other important factors might be at work as well, and even possibly dominate any income considerations. Well-being is our top candidate.

Indeed, the second graph in Figure 1a reveals a strong positive relationship between trust and reported life satisfaction. We find no clear indication of a hump-shaped relationship between trust and life satisfaction, and in any case not in the



(a) Coefficient plots of trust and income (left) vs. trust and life satisfaction (right) in the ESS.



(b) Trust and income (left) vs. trust and life satisfaction (right) in the SHP.

Figure 1: Trust and income vs. trust and life satisfaction in the ESS (top) and SHP (bottom) surveys.

Controls include a broad set of socioeconomic and demographic variables. Displayed standard errors are clustered at the country (ESS) and individual (SHP) level. Estimates are based on linear regressions using post-stratification and population weights (ESS) and cross-sectional sampling weights (SHP) to account for differences in sampling across countries and individual backgrounds. Corresponding regression tables are in Appendix A.3 (ESS) and Appendix B.3 (SHP).

range of income maximizing levels. Consequently, the well-being maximizing level of trust is much higher than the income maximizing level. Correspondingly, as high-trust individuals consistently report higher levels of subjective well-being, the interpretation that high trust is simply the result of some mistake is not fully convincing. On the contrary, if the effects are taken at face value, it would be far more questionable to choose the income maximizing level of trust and forego a huge well-being bump in return. The estimated difference in life satisfaction between a trust level of 7 and a trust level of 10 is 0.335, which is in the same order of magnitude as the difference typically observed between married and unmarried individuals (the unmarried being unhappier, see e.g. Helliwell, 2003). At an estimated cost of about 10% of household income, this is a trade-off where giving preference to well-being does not need to stem from an obvious lapse in judgment, but can be incorporated into a framework where individuals care not only about material consumption, but derive utility from other sources as well. The “warm glow of giving” framework of Andreoni (1990) is a good case in point.

Given that the data used in Figure 1a are pooled from different countries, we extend our analysis further and look at the same relationship in a single country setting. Specifically, we examine data from the SHP in Figure 1b to test the robustness of the patterns observed in the ESS (see Table B.3 in the Appendix for the corresponding regressions). When revisiting the trust-income and trust-life satisfaction relationships in this national context, the plots from the SHP show a picture very similar to the ESS data: the income maximizing level of trust is somewhere between 7 and 9, and the point estimates again follow a hump shape along the trust distribution. The results for trust and life satisfaction are equally consistent with the ESS data: increasing trust from 7 to 10 is projected to elevate life satisfaction by 0.504 points on a 0-10 scale, and a loss in personal income of about 4%. When using the instrumental

variable approach described in Section 2, we also find both statistically and economically meaningful effects of trust on well-being. Table B.7 in Appendix B.3 reports the corresponding estimates. In another section in the Appendix, namely Appendix C.3, we also apply this approach to the Swedish National Society-Opinion-Media (SOM) survey. As shown in Table C.3, we find very similar patterns both qualitatively and quantitatively as we obtained with the SHP and ESS data as displayed in Figure 1.

In light of these considerable effects on life satisfaction, we further isolate the causal relationship of interest by leveraging exogenous well-being shocks. Specifically, we exploit the strong negative shock to life satisfaction caused by the death of a spouse, which, as mentioned, is overwhelmingly due to natural causes in Switzerland. Following an approach employed by Liberini et al. (2017), we compare individuals confronted with the death of their spouse to similar respondents who were spared this fate in the period in question. As expected, spousal death has a strong negative effect on reported life satisfaction in the year after the event ($p = 0.00$) relative to the pre-treatment period, but there is no difference in trust between those who lost their spouse and individuals who did not ($p = 0.73$). On average, the magnitude of the well-being impact pushes the treated into the unhappiest 15% of our sample. Naturally, the loss of a spouse has profound impacts on other dimensions as well (e.g. financial, social). The fact that we do not observe any impacts on trust despite these additional sources of disruption further supports our approach. Hence, we conclude that trust is persistent and unaffected by a strong well-being shock, supporting our analysis of the effect of trust on subjective well-being. Appendix B.3.2 provides additional details on this test.

3.2 Mechanisms

After having documented the positive relationship between trust and reported life satisfaction, we investigate the channels responsible for this persistent pattern in the data. By nature, cooperation involves helping others in particular or the community in general, which, in the spirit of “doing the right thing”, is likely to feel good in itself through some form of “warm glow” (Andreoni, 1990). To the extent that trust fosters pro-social behavior and attitudes, any positive well-being effect tied to such actions can be viewed as a potential channel between trust and life satisfaction.

Returning to the SHP data, which allows us to implement our IV approach, we look at various forms of pro-social or cooperative behavior. First, we look at reported engagement in voluntary work and reported donations. In 2018, an estimated 52% of Swiss donations to certified charities benefited internationally active non-profit organizations, implying that a majority of funds are intended to contribute to address more global rather than local social dilemmas (ZEWO, 2019). Second, we consider the reported frequency of voting, which is a very salient indicator of civic duty, leveraging the fact that popular votes on political initiatives take place several times a year in Switzerland. Third, we extend to pro-environmental behavior in the form of membership of an environmental organization as well as the reported frequency of purchasing seasonal and eco-friendly products. Fourth, we look at pro-environmental attitudes, including preferences for government spending for environmental purposes and preferences over social priorities between economic growth and environmental protection.

To further motivate the important nexus among trust, cooperative behavior, and well-being, we provide in Figure 2 descriptive evidence indicating that individuals who report the highest life satisfaction also tend to score high in both trust and pro-social

behavior. The latter is measured as donations and the frequency of voting, as these two continuous measures lend themselves very well to our graphical analysis, but we find similar patterns for the frequency of purchasing seasonal produce and eco-friendly products as well (see Figure B.3 in Appendix B.4). As expected, the surfaces tend to be sloped more steeply along the cooperation than along the trust axis, consistent with the notion that the observed effect of trust on well-being is to a considerable extent channeled through these forms of pro-social and pro environmental behaviors.

Building on Figure 2, in Table 2 we analyze the relationship between trust and cooperative behaviors in a systematic manner. Table 2 shows a consistent positive relationship between all these dimensions and trust, consistent across both the baseline regressions (top) and our IV approach (bottom of the table): higher levels of trust are associated with more cooperation, both in terms of charitable activities, voting frequency, pro-environmental behaviors and attitudes. Importantly, this relationship does not taper off once the typical level of trust in Switzerland – where the income benefits of more trust start to vanish or turn negative – is reached. People at the upper end of the trust distribution are significantly more cooperative than individuals who report trust levels of 7, the Swiss median, consistent with the trust-life satisfaction relationship. For example, a trust level of 7 is estimated to increase the reported frequency of buying eco-friendly products by about 1.25 points on a 10-point scale relative to a trust level of 0. Moving up to trust = 10 adds another 0.5 points to this difference based on our dummy specification, which is significantly higher ($p = 0.000$) than our estimate for trust = 7. In Appendix A.4, we provide a set of very similar estimates from the ESS data, for which trust positively affects variables capturing pro-social and pro-environmental behaviors such as membership in environmental/peace/animal rights organizations, the propensity to donate, and the reported frequency of work for a voluntary/charitable association, as well as pro-environmental

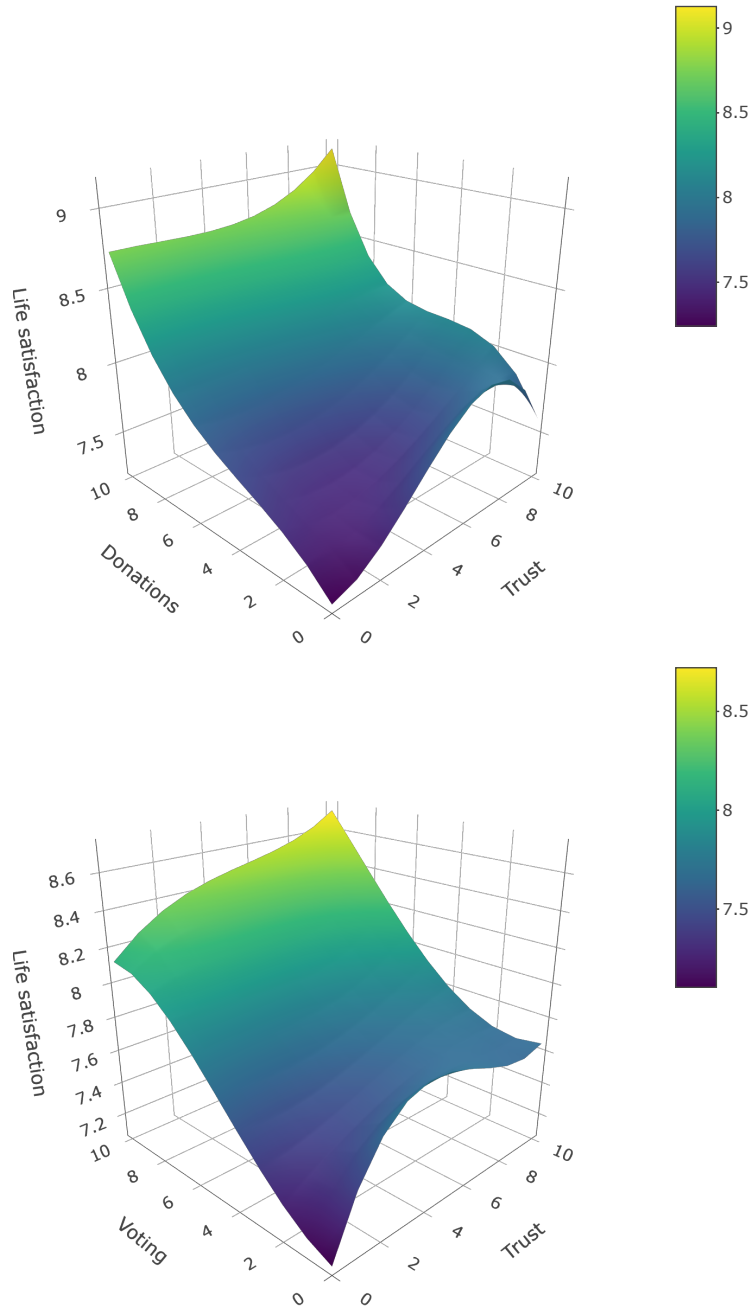


Figure 2: Pro-social behavior, trust and life satisfaction in the SHP data.

The top panel shows the descriptive relationship between trust, the amount of donations to charity (discretized into 11 categories of similar size in terms of number of observations) and reported life satisfaction. The bottom panel indicates the corresponding relationship between trust, the reported frequency of voting, and life satisfaction. The graphs are constructed using smoothed means of life satisfaction across the trust/pro-social behavior grid, based on a third order polynomial (and corresponding two-way interaction terms) of trust and the respective pro-social behavior.

attitudes, such as support for a fuel tax, the importance attached to the environment, the degree to which combating climate change is viewed as a personal responsibility and, finally, the degree of confidence about the individual ability to save energy and mitigate climate change. These results also translate to the Swedish SOM data, for which we display a set of similar outcomes in Appendix C.4. In the SOM, higher trust is associated with a higher likelihood to be a member of a humanitarian/aid organization and a higher reported frequency of helping such an organization either through voluntary work or donations. Importantly, the extensive margin of donations is measured in terms of frequency of donating, which complements the measure provided by the SHP. Further, higher trust increases the estimated likelihood of environmental organization membership as well as the reported frequency of using alternative transport and sorting of waste for environmental reasons. Lastly, we also see a positive association between trust and attitudes on the degree to which an environmentally friendly society and an increased carbon tax are favored as well as on the importance attached to reducing energy consumption by households.

In sum, the evidence strongly supports the notion that high-trust individuals have a higher propensity to engage in a wide range of cooperative and pro-social behaviors. This includes not only more localized forms of cooperation such as engagement in voluntary work, but also contributions to larger scale outcomes via donations or pro-environmental behavior. The latter outcomes in particular deserve attention as they relate to the private provision of a global public good, which is climate change mitigation. This link helps to explain why we tend to observe more climate action than the standard theories of international environmental agreements would predict (see e.g. de Zeeuw, 2015), and provides further empirical support for earlier work, which points to local social norms as an important driver of cooperation in the climate commons (see Carattini et al., 2019, for a review).

Table 2: Trust and cooperative/pro-social behavior and attitudes in the SHP

	Behaviors - Pro-social				Behaviors - Pro-environmental				Attitudes - Pro-environmental			
	Charity member	Donated	ln(Donation)	Voluntary work	Voting frequency	Envir. org. member	Buy eco-friendly	Buy seasonal fruit/veg.	More env. spending	Environment > growth		
OLS estimates												
Trust = 1	0.030 (0.024)	-0.014 (0.048)	-0.150 (0.199)	0.017 (0.024)	0.221 (0.212)	0.035* (0.021)	0.105 (0.291)	-0.054 (0.290)	0.102* (0.061)	0.021 (0.041)		
Trust = 2	0.048*** (0.015)	0.040 (0.030)	0.281** (0.120)	0.032** (0.014)	0.381*** (0.133)	0.023* (0.013)	0.518*** (0.185)	0.291* (0.176)	0.055 (0.040)	0.009 (0.027)		
Trust = 3	0.034** (0.014)	0.080*** (0.026)	0.233** (0.101)	0.047*** (0.013)	0.589*** (0.119)	0.025** (0.011)	0.487*** (0.168)	0.119 (0.160)	0.080** (0.035)	0.028 (0.024)		
Trust = 4	0.052*** (0.013)	0.083*** (0.024)	0.100 (0.096)	0.065*** (0.013)	0.892*** (0.116)	0.023** (0.010)	0.814*** (0.153)	0.243 (0.149)	0.085** (0.033)	0.069*** (0.023)		
Trust = 5	0.062*** (0.011)	0.117*** (0.021)	0.157* (0.087)	0.083*** (0.011)	0.891*** (0.107)	0.042*** (0.009)	0.798*** (0.140)	0.300** (0.136)	0.101*** (0.029)	0.075*** (0.020)		
Trust = 6	0.104*** (0.012)	0.158*** (0.022)	0.343*** (0.088)	0.117*** (0.012)	1.210*** (0.112)	0.070*** (0.010)	1.064*** (0.142)	0.433*** (0.137)	0.139*** (0.030)	0.104*** (0.021)		
Trust = 7	0.118*** (0.012)	0.194*** (0.021)	0.383*** (0.086)	0.150*** (0.011)	1.360*** (0.110)	0.094*** (0.009)	1.247*** (0.139)	0.528*** (0.134)	0.185*** (0.029)	0.136*** (0.021)		
Trust = 8	0.147*** (0.012)	0.222*** (0.021)	0.479*** (0.087)	0.160*** (0.011)	1.444*** (0.112)	0.124*** (0.010)	1.451*** (0.140)	0.693*** (0.135)	0.208*** (0.029)	0.173*** (0.021)		
Trust = 9	0.210*** (0.017)	0.210*** (0.023)	0.610*** (0.094)	0.203*** (0.014)	1.566*** (0.123)	0.169*** (0.015)	1.623*** (0.154)	0.913*** (0.144)	0.231*** (0.032)	0.220*** (0.024)		
Trust = 10	0.174*** (0.017)	0.202*** (0.025)	0.604*** (0.098)	0.177*** (0.015)	1.495*** (0.127)	0.157*** (0.016)	1.747*** (0.165)	1.016*** (0.152)	0.226*** (0.034)	0.208*** (0.025)		
p(Trust 10 = Trust 7)	0.000	0.609	0.000	0.029	0.075	0.000	0.000	0.000	0.047	0.000		
BH q-values	0.000	0.609	0.000	0.042	0.083	0.000	0.000	0.000	0.058	0.000		
Observations	71,492	21,489	14,041	85,044	61,320	71,502	21,368	21,437	21,103	65,205		
Adjusted R ²	0.058	0.147	0.208	0.130	0.128	0.047	0.108	0.105	0.049	0.047		
IV estimates												
Trust	0.121** (0.052)	0.065* (0.038)	0.454*** (0.145)	0.097** (0.041)	0.726** (0.361)	0.144*** (0.043)	0.501** (0.236)	0.299 (0.199)	0.095** (0.044)	0.088 (0.065)		
KP F-stat (1 st stage)	23,794	25,846	28,334	25,931	19,024	23,936	23,933	27,174	26,235	21,398		
p(AR-Wald)	0.014	0.096	0.000	0.013	0.039	0.000	0.041	0.130	0.029	0.167		
BH q-values	0.036	0.120	0.001	0.036	0.059	0.001	0.059	0.144	0.059	0.167		
No. individuals	3,340	2,099	1,466	2,938	2,320	3,339	2,095	2,093	2,065	2,978		
Observations	13,204	3,944	2,479	15,126	9,419	13,202	3,923	3,935	3,845	12,007		

(***, **, *) \leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. All specifications include year fixed effects. The OLS estimates also include canton fixed effects. The IV specifications include Swiss region and region of origin (Albania and Ex-Yugoslavia, Central Europe, Eastern Europe, Southern Europe) fixed effects. All specifications include additional controls (age, age squared, log household income, sex, employment and labor force participation status, full time work indicator, marital status, household size, number of children born to household, and years of education). "Charity member" denotes membership in a charitable organization - 1 (passive member), and 0 otherwise. "Donated" is a dummy equal to 1 if respondent reports any donations (cash or in-kind) in the past year. "ln(Donation)" denotes the log of monetary donations. "Voluntary work" = 1 if respondent reports having performed voluntary work (and 0 otherwise). "Voting frequency" denotes the reported frequency of participating in federal votes - 0 (never) to 10 (always). "Envir. org. member" = 1 if respondent reports being a passive member of an environmental organization, and 2 for being an active member, and 0 otherwise. "Buy eco-friendly" and "Buy seasonal fruit/veg." denote the reported frequency of buying eco-friendly/organic and seasonal products, respectively - 0 (never) to 10 (always). "More env. spending" is the reported preference for more (1), the same (0) or less (-1) public spending on the environment. "Environment > growth" is the reported preference for environment (1) or economic growth (-1), with 0 being indifference. "p(Trust 10 = Trust 7)" denotes the p-value of an F-test for equality of coefficients for Trust = 7 and Trust = 10. "KP F-stat" denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering). "p(AR-Wald)" contains the p-values of an Anderson and Rubin (1949) Wald test robust to weak identification, and "BH q-values" refer to Benjamini and Hochberg (1995) q-values adjusted for multiple hypothesis testing and are adjusted versions of the p-values of the F-test for equality of coefficients in the OLS case, and the Anderson-Rubin test p-values for the IV estimates.

3.3 Additional sensitivity tests

In this section, we further examine the robustness of our key results. First, we incorporate a set of additional controls to supplement our baseline specification. Second, we consider the impact of sampling weights. Third, we examine the robustness of our results to the definition and scaling of the dependent variable. Our results remain robust across all these additional specifications.

For the ESS, the set of additional controls includes trust in the police, the legal system, politicians and parliament as well as additional covariates capturing factors such as being a member of an ethnic minority, being impaired by a disability, health, or mental health condition, and whether the respondent has someone with whom to discuss intimate problems. We further estimate a specification where we control for a series of items measuring affective well-being, namely how often the respondent felt (i) like having a lot of energy, (ii) calm, and/or (iii) anxious during the last week, (iv) the degree to which one feels positive about oneself, and (v) the agreement on the statement that it is hard to be hopeful for the future of this world. For the SHP, the additional controls include variables such as trust in the federal government, religious affiliation, and the frequency of church attendance. Controlling for these covariates also does not alter the nature of the observed relationship between trust and cooperative outcomes in both OLS and IV regressions displayed in Table 2. Our results from the SHP are also robust to the addition of a battery of items capturing big five personality traits. We further include five types of trust in other institutions/groups and an indicator of religiosity in our SOM estimates, and in a separate specification control for a set of questions related to negative affect, overtime work, and social activities (included under “controlling for affect” in Figure 3). The corresponding results are provided, for the ESS in Figures A.1 and A.2 of Appendix A.5; for the

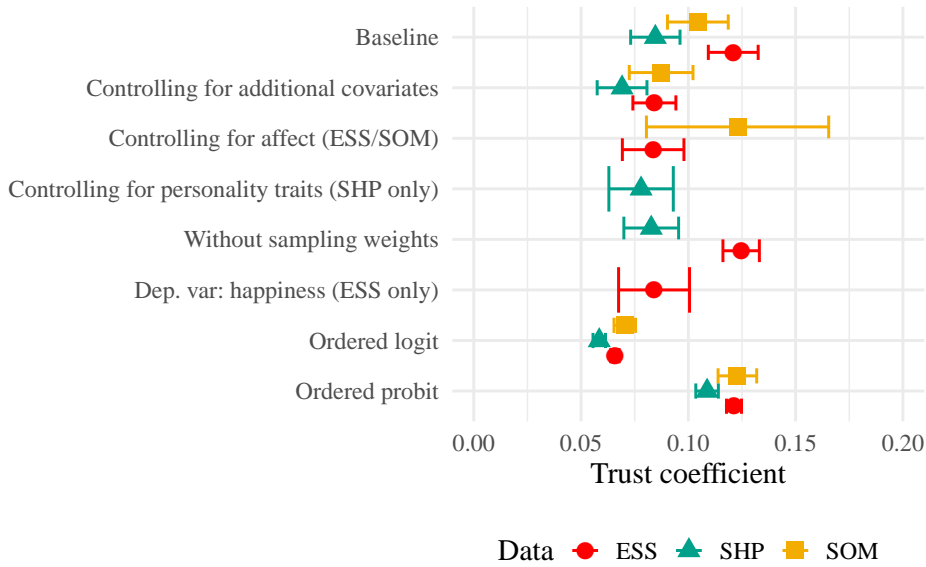


Figure 3: Sensitivity of the effect of trust on life satisfaction.

Estimates are based on a linear trust model and the same baseline covariates as in Figure 1 for the SHP/ESS, and Table C.3 (Appendix C.3) for the SOM data. Error bars denote 95% confidence intervals.

SHP in Figures B.4 and B.5 as well as Tables B.15 and B.16 of Appendix B.5; and for the SOM in Figures C.1 and C.2 of Appendix C.5.

Furthermore, the nature of our results is also unaffected by whether we use sampling weights or not. The corresponding results are provided, for the ESS in Figure A.3 of Appendix A.5; and for the SHP, in Figure B.6 and Table B.23 of Appendix B.5.

Switching the dependent variable from life satisfaction to happiness in the ESS slightly changes the estimate for the effect of trust, but not in an economically meaningful way.

Our results also carry over when we estimate ordered probit and logit models to check whether the linear interval scale imposed on the outcome variable has an effect on the estimated trust-life satisfaction relationship. We do not find this to be the case. For example, we estimate both statistically and economically significant

effects of trust on the estimated probability of being in the highest life-satisfaction category (see Tables A.6, A.7, B.21, B.22, C.6, and C.7 in Appendix A.5, B.5, and C.5, respectively).

4 Conclusion

Cooperative behavior is essential for societies to thrive and for humanity to address local and global social dilemmas. Modern democratic societies would not be functioning without the cooperativeness of their members, who show up to vote in elections, offer countless hours as volunteers, and donate to advance important causes. Explaining cooperative behavior in local and global social dilemmas represents, however, an area that still attracts important research efforts in search of an alternative paradigm to oppose to the standard concept of homo economicus. While many of these efforts are recent, they are not without tradition. Indeed, Adam Smith himself already expressed a more nuanced view of individual selfishness in his “Theory of Moral Sentiments” than what his contemporary portrayal often suggests, including the following words: “How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it” (Smith 1822:1). In the present paper, we investigate why many individuals report trust levels above the income maximizing optimum. This apparent puzzle can be resolved once we allow for non-monetary returns to trust, namely positive effects in terms of well-being. Part of this positive well-being effect can be explained in terms of a “warm glow of cooperation”, as high trust individuals consistently report a higher degree of cooperative behavior. The range of cooperative outcomes that we consider in this paper extends beyond the local context. Specifically, we also observe more

cooperation towards global commons such as the state of our climate. This finding has immediate implications relating to how policymakers and practitioners may approach local and global social dilemmas. First, cultural traits such as trust are rather slow to change over time, but change can happen over generations if trust is effectively instilled in pupils (Tabellini, 2008; Dixit and Levin, 2017). Instilling trust in pupils may not only be good for society, but may also make them happier adults. Second, our results point to an untapped potential in terms of measures leveraging the fact that individuals enjoy being cooperative. Solutions to social dilemmas that require great amounts of cooperation, including climate change mitigation, may be more successful if they make use of such proclivity to sustain cooperation.

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Appendix

A Additional information and results for the ESS data

A.1 Variable description

In what follows, we describe the ESS variables that we used for our analyses. All income variables were converted into Euros using the prevailing exchange rate at the time of the survey data collection, which is virtually always contained in the official ESS documentation. More details on the imputation procedure used to convert income brackets into single income values are provided in the variable description. Table A.2 provides descriptive statistics for all ESS variables. The average trust level in our sample is about 5 on the 0-10 scale, and both happiness and life satisfaction have means around 7.

Table A.1: Description of ESS variables used

	Description/Encoding	Underlying ESS Variable
<u>Main variables</u>		
Trust	Most people can be trusted (10) or you can't be too careful (0), 11 discrete values	ppltrst
Happiness	Taking all things together, how happy would you say you are? - ranges from 0 (extremely unhappy) to 10 (extremely happy), 11 discrete values	happy
Life satisfaction	All things considered, how satisfied are you with your life as a whole nowadays? Ranges from 0 (extremely dissatisfied) to 10 (extremely satisfied)	stflife

Log of household income	Log of annualized household income in Euros based on mean values of income categories (there are fixed overall categories in first three waves, which changes to country/year specific thresholds from wave 4 onward). Top coded income values were inferred via censored maximum likelihood – assuming a log-normal distribution of income – for each country/year combination using the post-stratification weights provided (variable “pspwght”, but the outcome is very similar with and without weights). For BG, EE, RU, and UA, a total of 6 top income values could not be determined via maximum likelihood for an early wave, due to a low (or 0 in case of RU) observation count in the top income bracket. In these cases, we assigned an income of 160,000 Euros, which is based on the mean of our estimates for the other countries in the same waves	hinctnt, hinctnta
<u>Demo./econ. variables</u>		
Age	Age in years	agea
Male	1 if male, 0 otherwise	gndr
Immigrant	1 if not born in country where interview took place, 0 otherwise	brncntr
Minority	Belonging to ethnic minority in country - 1 if yes, 0 if no/refusal	blgetmg
Married	1 if married (incl. civil union/partnership), 0 otherwise	marital, maritala, maritalb
Education (years)	Years of completed full-time education	eduyrs
Potential experience	Potential experience, calculated as the maximum between Age - years of education - 6 and 0	
Father_ISCED_x	Father’s highest level of education, by ISCED category - coded as set of dummies	edulvlfa
Father basic education	Father’s highest level of education is ISCED category 0 or 1	edulvlfa
Unemployed	= 1 if unemployed and wanting employment, regardless of whether person is actively looking for a job or not, 0 otherwise	mnactic
Out of labor force	= 1 if main activity in last 7 days was education, retirement, community/military service, housework, disability or “other”	mnactic
Big city	= 1 if ind. lives in a “big city” or a suburb thereof, 0 otherwise	domicil
Small city	= 1 if ind. lives in a “small city”, 0 otherwise	domicil
<u>Professions</u>		
Professional	= 1 if ISCO88/ISCO08 = 2XXX, 0 otherwise	iscoco, isco08
Technician	= 1 if ISCO88/ISCO08 = 3XXX, 0 otherwise	iscoco, isco08
Clerk	= 1 if ISCO88/ISCO08 = 4XXX, 0 otherwise	iscoco, isco08
Service worker	= 1 if ISCO88/ISCO08 = 5XXX, 0 otherwise	iscoco, isco08
Agricultural worker	= 1 if ISCO88/ISCO08 = 6XXX, 0 otherwise	iscoco, isco08
Craft worker	= 1 if ISCO88/ISCO08 = 7XXX, 0 otherwise	iscoco, isco08

Plant mach. worker	= 1 if ISCO88/ISCO08 = 8XXX, 0 otherwise	iscoco, isco08
Elementary occupation	= 1 if ISCO88/ISCO08 = 9XXX, 0 otherwise	iscoco, isco08
<u>Well-being factors</u>		
Health	How is your health in general? - 1 (very bad) to 5 (very good)	health
Impaired	1 if hampered a lot in daily activities by illness/disability/infirmity/mental problem , 0 otherwise	hlthhmp
Feel positive	In general feel very positive about myself - 1 (strongly disagree) to 5 (strongly agree)	pstvms
Have energy	Had lot of energy, how often past week - 1 (none), 2 (some), 3 (most) to 4 (all the time)	enrglot
Felt anxious	Felt anxious, how often past week - 1 (none), 2 (some), 3 (most) to 4 (all the time)	flt anx
Felt calm	Felt calm and peaceful, how often past week - 1 (none), 2 (some), 3 (most) to 4 (all the time)	flt pcf
No hope for world	Hard to be hopeful about the future of the world - 1 (disagree strongly) to 5 (agree strongly)	nhpft
Social activity - absolute	How often subject socially meets with friends, from 1 (never) to 7 (every day)	sclmeet
Social activity - relative to peer group	Engagement in social activities relative to others at the same age - from 1 (much less than most) to 5 (much more than most)	sclact
Intimate discussion	Dummy on whether there is someone to discuss intimate/personal matters with - 1 if yes and 0 if not	inmdisc, inprdisc
Crime victim	1 if household was victim of burglary or assault in past 5 years, 0 otherwise	crmvct
Religiosity	Regardless of whether you belong to a particular religion, how religious would you say you are? 1 (not at all religious) to 10 (very religious)	rlgdgr
Risk tolerance	Important to seek adventures and have an exciting life - 1 (not like me at all) to 6 (very much like me). Analogous to Butler et al. (2016).	ipadvnt
Altruism	Important to be loyal to friends and devote to people close to oneself - 1 (not like me at all) to 6 (very much like me). Analogous to Butler et al. (2016).	iplyfr
Trust parliament	Trust in parliament - 0 (no trust) to 10 (complete trust)	trstprl
Trust legal system	Trust in the legal system - 0 (no trust) to 10 (complete trust)	trstlgl
Trust police	Trust in the police - 0 (no trust) to 10 (complete trust)	trstpplc
Trust politician	Trust in politicians - 0 (no trust) to 10 (complete trust)	trstplt
<u>Citizen involvement variables</u>		
Envir. org. member	Environmental/peace/animal organization, last 12 months: member - 1 if either participated or member, 2 if both, 0 if no/NA	epaommb, epaoptp

Volunt. work	1 if performed voluntary work for any of the following organizations in the last 12 months: Sports, cultural, union, professional, consumer, humanitarian, environmental, religious, political party, science, other. 0 otherwise	sptcvw, cltovw, truvw, prfov, cnsolv, hmnovw, epaovw, rlgovw, prtyvw, setovw, sclcvw, othvww
Donated	1 if donated to any of the following organizations in the last 12 months: Sports, cultural, union, professional, consumer, humanitarian, environmental, religious, political party, science, other. 0 otherwise	sptcdm, cltodm, trudm, prfodm, cnsodm, hmnodm, epaodm, rlgodm, prtydm, setodm, sclcdm, othvdm
Charity work	Involved in work for voluntary or charitable organizations, how often past 12 months - from 1 (never) to 6 (at least once a week)	wkvlorg
<u>Environmental variables</u>		
Importance envir.	Important to care for nature and environment - 1 (not at all like me) to 6 (very much like me)	impenv
Could red. energy	How confident you could use less energy than now - 0 (not at all) to 10 (completely confident)	cfisenr
CC resp.	To what extent feel personal responsibility to reduce climate change - 0 (not at all) to 10 (a great deal)	ccrdprs
I can red. cc	How likely that limiting own energy use will reduce climate change - 0 (not at all) to 10 (extremely likely)	ownrdcc
Supports fuel tax	Favor increase taxes on fossil fuels to reduce climate change - from 1 (strongly against) to 5 (strongly in favor)	inctxff
Supports enregy subs.	Favor subsidize renewable energy to reduce climate change - from 1 (strongly against) to 5 (strongly in favor)	sbsrnen
<u>Admin variables</u>		
Wave	ESS wave number (1-8)	essround
Country	Country, 2-character strings	cuntry
Sampling weight	Combines post-stratification with population weights (both contained in the ESS)	pspweight, pweight

Table A.2: Summary statistics - ESS (full)

Statistic	N	Mean	St. Dev.	Min	Max
Trust	231,844	5.154	2.447	0	10
Happiness	230,974	7.285	1.964	0	10
Life satisfaction	231,844	6.969	2.253	0	10
Age	231,844	49.106	17.441	18	99
Male	231,844	0.473	0.499	0	1
Married	231,844	0.554	0.497	0	1
Log of household income	231,844	9.784	1.075	6.068	12.374
Education (years)	231,844	12.639	4.100	0	54
Potential experience	231,844	30.478	19.017	0	92
Father basic education	231,844	0.330	0.470	0	1
Unemployed	231,844	0.055	0.227	0	1
Out of labor force	231,844	0.390	0.488	0	1
Big city	231,844	0.335	0.472	0	1
Small city	231,844	0.303	0.460	0	1
Risk tolerance	231,844	3.051	1.428	1	6
Altruism	231,844	5.078	0.899	1	6
Religiosity	230,655	4.702	3.006	0	10
Health	231,692	3.788	0.917	1	5
Impaired	231,085	0.060	0.238	0	1
Immigrant	231,844	0.091	0.288	0	1
Crime victim	231,364	0.180	0.384	0	1
Minority	228,999	0.054	0.225	0	1
Professional	231,844	0.155	0.362	0	1
Technician	231,844	0.147	0.354	0	1
Clerk	231,844	0.091	0.287	0	1
Service worker	231,844	0.145	0.352	0	1
Agricultural worker	231,844	0.029	0.168	0	1
Craft worker	231,844	0.113	0.317	0	1
Plant mach. worker	231,844	0.075	0.264	0	1
Elementary occupation	231,844	0.091	0.288	0	1
Feel positive	60,377	3.858	0.793	1	5
Have energy	60,279	2.609	0.855	1	4
Felt anxious	60,326	1.628	0.737	1	4
Felt calm	60,250	2.745	0.827	1	4
No hope for world	59,895	3.270	1.051	1	5
Social activity - absolute	231,017	4.855	1.553	1	7
Social activity - relative	228,615	2.724	0.936	1	5
Intimate discussion	230,195	0.923	0.267	0	1
Trust parliament	227,819	4.524	2.585	0	10
Trust legal system	227,897	5.244	2.676	0	10
Trust police	230,119	6.061	2.556	0	10
Trust politician	228,905	3.620	2.384	0	10
Envir. org. member	20,865	0.069	0.253	0	1
Volunt. work	20,865	0.190	0.392	0	1
Donated	20,865	0.301	0.459	0	1
Charity work	60,272	2.079	1.658	1	6
Importance envir.	231,263	4.894	1.013	1	6
Could red. energy	30,713	6.145	2.608	0	10
CC resp.	29,771	5.706	2.693	0	10
I can red. CC	29,680	4.347	2.644	0	10
Supports fuel tax	30,208	2.815	1.240	1	5
Supports energy subs.	30,528	3.979	1.049	1	5

A.2 Empirical approach

Our estimation equations for the ESS data are of the form

$$y_{ic} = \beta_0 + \sum_{k=1}^{10} \beta_k \mathbf{1}(Trust_{ic} = k) + \delta X_{ic} + \eta_{ct} + \epsilon_{ic}, \quad (1)$$

where y_{ic} denotes the outcomes of interest (income, cooperative attitudes and behaviors, and happiness) for individual i in country c , η_{ct} are country-year fixed effects, and X_{ic} is a vector of individual controls. Trust enters as a series of dummies, which allows us to avoid an a priori imposition of a particular functional relationship between trust and the outcome variable.

A.3 Trust and income/life satisfaction

In Table A.3, we provide the full regression table corresponding to our estimates for the relationship between trust and log household income/life satisfaction in the ESS as displayed in Figure 1a. An F-test strongly rejects equality of coefficients for Trust = 7 and Trust = 10 for both income and life satisfaction, which supports our observation that the income maximizing level of trust is around 7, while the well-being optimum is located beyond this value.

Table A.3: Estimates for trust and income/life satisfaction corresponding to Figure 1a

	ln(HH inc.)	Lf satisf.
	(1)	(2)
Trust = 1	0.006 (0.021)	0.052 (0.068)
Trust = 2	0.047** (0.021)	0.205*** (0.039)
Trust = 3	0.083*** (0.021)	0.204*** (0.072)
Trust = 4	0.076*** (0.023)	0.382*** (0.036)
Trust = 5	0.089*** (0.022)	0.542*** (0.032)
Trust = 6	0.123*** (0.024)	0.600*** (0.033)
Trust = 7	0.132*** (0.030)	0.758*** (0.037)
Trust = 8	0.123*** (0.026)	0.939*** (0.046)
Trust = 9	0.105*** (0.031)	1.147*** (0.037)
Trust = 10	0.031 (0.027)	1.093*** (0.113)
Age	0.003 (0.024)	0.011 (0.057)
Age ²	0.0001 (0.0001)	0.001*** (0.0001)
Unemployed	-0.526*** (0.021)	-0.747*** (0.068)
Out of labor force	-0.213*** (0.020)	0.127*** (0.015)
Health	0.085*** (0.010)	0.580*** (0.033)
Immigrant	-0.118*** (0.016)	-0.120*** (0.023)
Married	0.326*** (0.022)	0.399*** (0.024)
Father basic educ.	-0.117*** (0.016)	0.006 (0.048)
Education (years)	0.016 (0.017)	-0.077 (0.051)
Big city/suburb	0.106 (0.070)	-0.136*** (0.024)
Small city	0.036 (0.033)	-0.107*** (0.017)
Risk tolerance	0.016*** (0.005)	-0.010 (0.009)
Altruism	0.009*** (0.004)	0.077*** (0.016)
Social activity - absolute = 2		0.158 (0.123)
Social activity - absolute = 3		0.408*** (0.122)
Social activity - absolute = 4		0.545*** (0.123)
Social activity - absolute = 5		0.591*** (0.112)
Social activity - absolute = 6		0.677*** (0.117)
Social activity - absolute = 7		0.788*** (0.118)
Social activity - rel. to peer group = 2		0.259*** (0.047)
Social activity - rel. to peer group = 3		0.478*** (0.039)
Social activity - rel. to peer group = 4		0.580*** (0.052)
Social activity - rel. to peer group = 5		0.523*** (0.094)
Religiosity		0.059*** (0.008)
Crime victim		-0.222*** (0.055)
Country-year FE	Yes	Yes
7 Occupation FE	Yes	Yes
p(Trust 7 = Trust 10)	0.00	0.00
Observations	231,692	226,407
Adjusted R ²	0.695	0.295

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the country level in parentheses. Estimates are generated using post-stratification and population weights. “p(Trust 7 = Trust 10)” denotes the p-value of an F-test for equality of coefficients for Trust = 7 and Trust = 10.

A.4 Trust and cooperative outcomes

In this section, we focus on three measures of the extensive margin of participation in pro-social and pro-environmental activities through membership in an environmental organization, engagement in voluntary work, and whether or not the respondent has made any donations in the past 12 months. For all these outcomes, we see increasing coefficients as we move from the average level of trust (trust = 5) toward trust = 9, which produced the highest estimate in terms of the effect on well-being in Figure 1a. The difference in point estimates is also statistically significant at the 10%-level or lower, with only one exception, which is voluntary work (see Table A.4). Hence, we further consider an intensive measure of the extent of voluntary work for charitable and other voluntary organizations performed in the past 12 months, where we also find that trust has a strong positive effect on reported engagement in this form of cooperative activity (Tables A.4 and A.5). In addition, we consider a range of attitudes towards the environment and climate change comprising the degree of support for increased fuel taxes, energy subsidies, and the general importance attached to the environment. We, again, find larger coefficients as we move up the trust scale. Finally, we also include three items inquiring on one’s perspective about individual behavior in presence of social dilemmas: (i) do I feel that reducing climate change is a personal responsibility, (ii) how likely is it that limiting my own energy use can reduce climate change, and ultimately (iii) the confidence about the own ability to reduce energy consumption. These questions refer to the concepts of “ascription of responsibility” and “awareness of consequences”, both considered important motivators of socially, and environmentally desirable behavior in the social psychology literature (Stern 1999, 2000). Here we also find a very consistent pattern: high-trust individuals are more likely to think that they should, and actually can, do something

against climate change (Table A.5).

Table A.4: Regression estimates for pro-social and pro-environmental outcomes I

	Envir. org. member	Voluntary work	Donated	Char. work	Supports fuel tax
	(1)	(2)	(3)	(4)	(5)
Trust = 1	-0.022* (0.013)	0.022 (0.016)	0.007 (0.024)	0.099*** (0.030)	-0.076 (0.121)
Trust = 2	-0.012 (0.017)	0.020 (0.016)	0.024 (0.039)	0.085 (0.056)	0.076 (0.062)
Trust = 3	-0.013 (0.013)	0.043 (0.032)	0.058 (0.037)	0.085 (0.084)	0.127 (0.081)
Trust = 4	-0.031*** (0.010)	0.022 (0.025)	0.037 (0.024)	0.072 (0.053)	0.057 (0.075)
Trust = 5	-0.029*** (0.011)	0.039 (0.026)	0.028 (0.026)	0.131** (0.058)	0.102 (0.096)
Trust = 6	-0.008 (0.011)	0.064** (0.030)	0.100** (0.040)	0.168 (0.103)	0.174** (0.078)
Trust = 7	-0.002 (0.005)	0.089*** (0.031)	0.131*** (0.039)	0.322*** (0.107)	0.253*** (0.086)
Trust = 8	0.003 (0.017)	0.107*** (0.037)	0.130*** (0.037)	0.340** (0.136)	0.306*** (0.112)
Trust = 9	0.008 (0.021)	0.077** (0.037)	0.139*** (0.051)	0.367** (0.162)	0.356*** (0.105)
Trust = 10	-0.051** (0.020)	0.044 (0.028)	0.094* (0.054)	0.349*** (0.086)	0.259*** (0.062)
Education (years)	0.010*** (0.003)	0.012*** (0.002)	0.020*** (0.003)	0.053*** (0.006)	0.031*** (0.004)
Age	0.004*** (0.001)	0.006** (0.002)	0.008*** (0.003)	0.026*** (0.007)	-0.012** (0.005)
Age ²	-0.00003** (0.00001)	-0.0001* (0.00003)	-0.0001* (0.00003)	-0.0002*** (0.0001)	0.0001** (0.00004)
ln(HH inc.)	0.014** (0.006)	0.020*** (0.003)	0.051*** (0.011)	0.110*** (0.025)	0.132*** (0.017)
Male	-0.020*** (0.007)	0.015** (0.006)	-0.008 (0.010)	-0.003 (0.064)	-0.084*** (0.022)
Married	-0.018 (0.014)	0.021 (0.013)	-0.018 (0.012)	0.079* (0.046)	-0.098*** (0.035)
Unemployed	-0.016* (0.009)	-0.030*** (0.008)	-0.095*** (0.028)	-0.119** (0.049)	0.074 (0.058)
Out of labor force	0.012 (0.009)	0.021** (0.010)	-0.019 (0.015)	0.125*** (0.039)	0.064*** (0.018)
Big city/suburb	-0.017 (0.015)	-0.069*** (0.024)	0.002 (0.019)	-0.215*** (0.062)	0.224*** (0.032)
Small city	-0.023 (0.017)	-0.047*** (0.015)	-0.004 (0.022)	-0.111** (0.047)	0.094*** (0.013)
Risk tolerance	0.009*** (0.002)	0.008*** (0.002)	0.003 (0.005)	0.045*** (0.010)	0.035*** (0.007)
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	-	-	-	Yes	-
Range dep. var.	0-2	0-1	0-1	1-6	1-5
p(Trust 9 = Trust 5)	0.08	0.43	0.01	0.03	0.00
Observations	20,865	20,865	20,865	60,272	30,208
Adjusted R ²	0.050	0.085	0.125	0.123	0.093

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the country level in parentheses. “Envir. org. member” takes a value of 1 if the individual reports being member of an environmental/peace/animal organization, and 2 if the individual also actively participates in the environmental organization (rather than being a passive member only). “Voluntary work” is 1 if any voluntary work for either type of association (incl. sport, culture, union, professional, consumer, humanitarian, environmental, religious, political, science and other) is reported, and 0 otherwise. “Donated” is defined in a similar way, but focuses on having donated to such an organization. “Char. work” contains the reported frequency of being involved in work for voluntary/charitable organizations in the last 12 months, ranging from 1 (never) to 6 (at least once a week), and “Supports fuel tax” captures the support for a tax on fuels, ranging from 1 (strongly against) to 5 (strongly in favor). “p(Trust 9 = Trust 5)” denotes the p-value of an F-test for equality of coefficients for Trust = 5 (average trust in the ESS) and Trust = 9 (largest point estimate in a regression of life satisfaction on trust).

Table A.5: Regression estimates for pro-environmental outcomes II

	Supports energy subs.	Envir. import.	CC resp.	I can red. CC	Can save energy
	(1)	(2)	(3)	(4)	(5)
Trust = 1	-0.199 (0.152)	-0.079*** (0.031)	0.703 (0.527)	0.609 (0.412)	0.612** (0.282)
Trust = 2	-0.091 (0.067)	-0.075*** (0.025)	0.403 (0.297)	0.324 (0.274)	0.466** (0.219)
Trust = 3	-0.046 (0.077)	-0.094*** (0.031)	0.806** (0.384)	0.739*** (0.356)	0.538** (0.243)
Trust = 4	-0.039 (0.065)	-0.123** (0.048)	0.832** (0.372)	0.797*** (0.249)	0.709** (0.302)
Trust = 5	0.005 (0.070)	-0.066* (0.036)	0.938** (0.408)	0.766*** (0.219)	0.603** (0.238)
Trust = 6	-0.010 (0.074)	-0.092** (0.044)	1.134*** (0.429)	1.129*** (0.290)	0.852*** (0.315)
Trust = 7	0.042 (0.056)	-0.021 (0.042)	1.234*** (0.423)	1.150*** (0.284)	0.807*** (0.233)
Trust = 8	0.060 (0.077)	0.040 (0.045)	1.383*** (0.468)	1.250*** (0.342)	0.956*** (0.268)
Trust = 9	0.156** (0.063)	0.089* (0.046)	1.722*** (0.530)	1.545*** (0.407)	1.118*** (0.386)
Trust = 10	-0.035 (0.088)	0.166*** (0.034)	1.958*** (0.667)	1.485*** (0.420)	0.939*** (0.219)
Education (years)	0.019*** (0.003)	0.018*** (0.002)	0.065*** (0.010)	-0.006 (0.014)	0.038** (0.016)
Age	-0.004 (0.007)	0.026*** (0.004)	0.060*** (0.013)	0.022** (0.009)	0.018** (0.008)
Age ²	0.00002 (0.0001)	-0.0002*** (0.00003)	-0.001*** (0.0001)	-0.0002** (0.0001)	-0.0003*** (0.0001)
ln(HH inc.)	0.099*** (0.021)	-0.018 (0.015)	0.133* (0.076)	-0.045 (0.044)	0.099 (0.080)
Male	-0.025 (0.022)	-0.079*** (0.010)	-0.229*** (0.045)	-0.208*** (0.044)	0.093* (0.051)
Married	-0.047*** (0.016)	0.021*** (0.007)	0.092** (0.037)	0.113 (0.072)	0.181*** (0.025)
Unemployed	0.058 (0.038)	0.009 (0.020)	-0.021 (0.121)	0.093 (0.082)	-0.163*** (0.038)
Out of labor force	0.013 (0.040)	0.021** (0.010)	0.139** (0.061)	0.055 (0.040)	0.099* (0.053)
Big city/suburb	0.026 (0.032)	-0.032** (0.013)	0.046 (0.039)	0.170* (0.093)	0.014 (0.063)
Small city	-0.021 (0.021)	-0.034* (0.019)	0.006 (0.073)	0.189 (0.117)	0.101* (0.054)
Risk tolerance	0.014** (0.006)	0.050*** (0.013)	0.129*** (0.015)	0.151*** (0.011)	0.084*** (0.014)
Country FE	Yes	Yes	Yes	Yes	Yes
Range dep. var.	1-5	1-6	0-10	0-10	0-10
p(Trust 9 = Trust 5)	0.00	0.00	0.00	0.00	0.00
Observations	30,528	231,263	29,771	29,680	30,713
Adjusted R ²	0.065	0.055	0.234	0.059	0.159

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the country level in parentheses. "Supports energy subs." measures the support for subsidies on renewable energy to reduce climate change - 1 (strongly against) to 5 (strongly in favor). "Envir. import." captures the reported importance given to the environment - 1 (not at all) to 6 (very much). "CC resp." is the degree to which reducing climate change is felt as a personal responsibility - 0 (not at all) to 10 (a great deal). "I can red. CC" is the likelihood to which the respondent feels she can reduce climate change herself by reducing own energy use - 0 (not at all likely) to 10 (extremely likely). "Can save energy" denotes the degree to which the respondent is confident about her ability to reduce energy consumption - 0 (not at all) to 10 (completely confident). "p(Trust 9 = Trust 5)" denotes the p-value of an F-test for equality of coefficients for Trust = 5 (average trust in the ESS) and Trust = 9 (largest point estimate in a regression of life satisfaction on trust).

A.5 Robustness tests

In what follows, we present the analyses showing the robustness of our findings on the trust-income and trust-well-being relationships to the inclusion of further controls accounting for other forms of trust, additional (mental) health indicators and perceived minority status (Figure A.1) as well as for a series of measures for affective well-being (Figure A.2).

Our findings are also robust to the use of non-linear models, as shown by Tables A.6 and A.7, which provide ordered probit and logit estimates for trust and life satisfaction. That is, the observed positive relationship does not depend on the imposed interval scale of the life satisfaction variable in our baseline regressions. As indicated in Tables A.6 and A.7, increasing trust by 1 point is projected to increase the probability of being in the highest life satisfaction category by about 1% on average.

Finally, we confirm that our findings are robust to a last specification change and show, in Figure A.3, that the use of sampling weights does not affect our estimates in a qualitatively or quantitatively meaningful way.

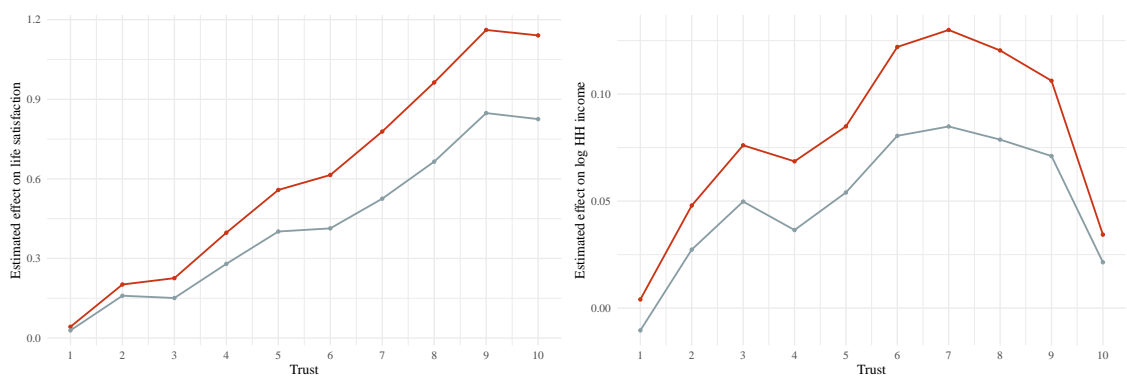


Figure A.1: Trust and life satisfaction (left) and log household income (right) in the ESS data with and without additional controls.

The top line is the baseline (red, based on a regression using the same variables as in Figure 1a) and the gray line below is based on additional controls for the level or trust in the police, parliament, politicians and the legal system (10 trust-level dummies in every case), being a member of an ethnic minority, being impaired by a disability, health or mental health condition, and whether the respondent has someone with whom to discuss intimate problems. Both regressions in each plot are based on the same observations and use sampling weights (post-stratification and population).

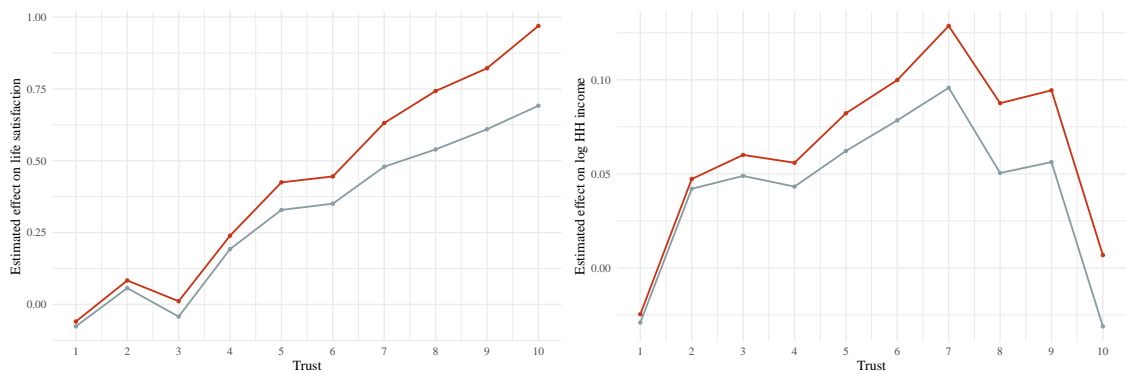


Figure A.2: Trust and life satisfaction (left) and log household income (right) in the ESS data with and without additional controls II.

The top line is the baseline (red, based on a regression using the same variables as in Figure 1a) and the gray line below is based on additional controls for affective well-being, namely how often the respondent felt (i) like having a lot of energy, (ii) calm, and (iii) anxious in the last week, and also (iv) the degree to which one feels positive about oneself, and (v) the agreement on the statement that it is hard to be hopeful for the state of this world. Both regressions in each plot are based on the same observations and use sampling weights (post-stratification and population).

Table A.6: Ordered probit estimates for trust and life satisfaction in the ESS data

	Coef.	ME on p(y=10) at mean	Avg. ME on p(y=10)
	(1)	(2)	(3)
Trust	0.0658*** (0.0010)	0.0083*** (0.0001)	0.0101*** (0.0002)
Age	-0.5060* (0.2707)	-0.0638* (0.0341)	-0.0775* (0.0415)
Age ²	0.6561*** (0.0359)	0.0827*** (0.0045)	0.1005*** (0.0055)
Male	-0.0397*** (0.0048)	-0.0050*** (0.0006)	-0.0061*** (0.0007)
ln(HH income)	0.1996*** (0.0040)	0.0251*** (0.0005)	0.0306*** (0.0006)
Unemployed	-0.3676*** (0.0100)	-0.0463*** (0.0013)	-0.0563*** (0.0016)
Out of labor force	0.0613*** (0.0059)	0.0077*** (0.0007)	0.0094*** (0.0009)
Married	0.2238*** (0.0053)	0.0282*** (0.0007)	0.0343*** (0.0008)
HH size	-0.0122*** (0.0020)	-0.0015*** (0.0002)	-0.0019*** (0.0003)
Immigrant	-0.0697*** (0.0078)	-0.0088*** (0.0010)	-0.0107*** (0.0012)
Big city/suburb	-0.0729*** (0.0056)	-0.0092*** (0.0007)	-0.0112*** (0.0009)
Small city	-0.0571*** (0.0055)	-0.0072*** (0.0007)	-0.0087*** (0.0008)
Social act. - abs.	0.0571*** (0.0016)	0.0072*** (0.0002)	0.0088*** (0.0003)
Social act. rel.	0.0868*** (0.0026)	0.0109*** (0.0003)	0.0133*** (0.0004)
Religiosity	0.0302*** (0.0008)	0.0038*** (0.0001)	0.0046*** (0.0001)
Crime victim	-0.0738*** (0.0057)	-0.0093*** (0.0007)	-0.0113*** (0.0009)
Risk tolerance	-0.0061*** (0.0017)	-0.0008*** (0.0002)	-0.0009*** (0.0003)
Father low educ.	0.0186*** (0.0058)	0.0023*** (0.0007)	0.0029*** (0.0009)
Pot. exp.	-0.0751 (0.2892)	-0.0095 (0.0364)	-0.0115 (0.0443)
Pot. exp. ²	-0.0261 (0.0213)	-0.0033 (0.0027)	-0.0040 (0.0033)
Health	0.3131*** (0.0028)	0.0395*** (0.0004)	0.0480*** (0.0005)
Education	-0.0325 (0.0586)	-0.0041 (0.0074)	-0.0050 (0.0090)
Altruism	0.0644*** (0.0025)	0.0081*** (0.0003)	0.0099*** (0.0004)
Threshold 1 (SE)	-0.2744	(0.0257)	
Threshold 2 (SE)	0.005	(0.0254)	
Threshold 3 (SE)	0.3473	(0.0251)	
Threshold 4 (SE)	0.7268	(0.025)	
Threshold 5 (SE)	1.0116	(0.025)	
Threshold 6 (SE)	1.5275	(0.0251)	
Threshold 7 (SE)	1.8546	(0.0251)	
Threshold 8 (SE)	2.4007	(0.0252)	
Threshold 9 (SE)	3.2298	(0.0255)	
Threshold 10 (SE)	3.9123	(0.0257)	
N	226316		
Country dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
8 Professional cat. dummies	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Heteroskedasticity robust standard errors in parentheses. Age, age squared, household income, pot. experience, its square and education have been standardized (mean 0 and standard deviation of 1) before estimation. The professional category dummies are “professional”, “technician”, “clerk”, “agricultural worker”, “craft worker”, “plant/machine worker”, and “elementary occupation”. The thresholds refer to the values of the latent variable at which the outcome changes according to the fitted model (10 thresholds separating 11 ordered response categories).

Table A.7: Ordered logit estimates for trust and life satisfaction in the ESS data

	Coef.	ME on p(y=10) at mean	Avg. ME on p(y=10)
	(1)	(2)	(3)
Trust	0.1213*** (0.0018)	0.0071*** (0.0001)	0.0097*** (0.0001)
Age	-0.9480** (0.4668)	-0.0554** (0.0273)	-0.0758** (0.0373)
Age ²	1.1312*** (0.0625)	0.0661*** (0.0037)	0.0905*** (0.0050)
Male	-0.0705*** (0.0082)	-0.0041*** (0.0005)	-0.0056*** (0.0007)
ln(HH income)	0.3632*** (0.0070)	0.0212*** (0.0004)	0.0290*** (0.0006)
Unemployed	-0.6652*** (0.0178)	-0.0389*** (0.0011)	-0.0532*** (0.0014)
Out of labor force	0.1053*** (0.0102)	0.0062*** (0.0006)	0.0084*** (0.0008)
Married	0.3936*** (0.0091)	0.0230*** (0.0005)	0.0315*** (0.0007)
HH size	-0.0242*** (0.0034)	-0.0014*** (0.0002)	-0.0019*** (0.0003)
Immigrant	-0.1337*** (0.0137)	-0.0078*** (0.0008)	-0.0107*** (0.0011)
Big city/suburb	-0.1300*** (0.0096)	-0.0076*** (0.0006)	-0.0104*** (0.0008)
Small city	-0.1014*** (0.0095)	-0.0059*** (0.0006)	-0.0081*** (0.0008)
Social act. - abs.	0.1020*** (0.0029)	0.0060*** (0.0002)	0.0082*** (0.0002)
Social act. rel.	0.1555*** (0.0045)	0.0091*** (0.0003)	0.0124*** (0.0004)
Religiosity	0.0529*** (0.0014)	0.0031*** (0.0001)	0.0042*** (0.0001)
Crime victim	-0.1236*** (0.0099)	-0.0072*** (0.0006)	-0.0099*** (0.0008)
Risk tolerance	-0.0113*** (0.0029)	-0.0007*** (0.0002)	-0.0009*** (0.0002)
Father low educ.	0.0330*** (0.0101)	0.0019*** (0.0006)	0.0026*** (0.0008)
Pot. exp.	-0.0599 (0.4988)	-0.0035 (0.0291)	-0.0048 (0.0399)
Pot. exp. ²	-0.0299 (0.0370)	-0.0017 (0.0022)	-0.0024 (0.0030)
Health	0.5616*** (0.0050)	0.0328*** (0.0003)	0.0449*** (0.0005)
Education	-0.0361 (0.1010)	-0.0021 (0.0059)	-0.0029 (0.0081)
Altruism	0.1189*** (0.0044)	0.0069*** (0.0003)	0.0095*** (0.0004)
Threshold 1 (SE)	-0.6321	(0.0463)	
Threshold 2 (SE)	-0.0226	(0.045)	
Threshold 3 (SE)	0.6763	(0.0442)	
Threshold 4 (SE)	1.4072	(0.0439)	
Threshold 5 (SE)	1.9329	(0.0438)	
Threshold 6 (SE)	2.85	(0.044)	
Threshold 7 (SE)	3.4154	(0.0441)	
Threshold 8 (SE)	4.3434	(0.0444)	
Threshold 9 (SE)	5.7591	(0.045)	
Threshold 10 (SE)	7.0072	(0.0457)	
N	226316		
Country dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
8 Professional cat. dummies	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Heteroskedasticity robust standard errors in parentheses. Age, age squared, household income, pot. experience, its square and education have been standardized (mean 0 and standard deviation of 1) before estimation. The professional category dummies are “professional”, “technician”, “clerk”, “agricultural worker”, “craft worker”, “plant/machine worker”, and “elementary occupation”. The thresholds refer to the values of the latent variable at which the outcome changes according to the fitted model (10 thresholds separating 11 ordered response categories).

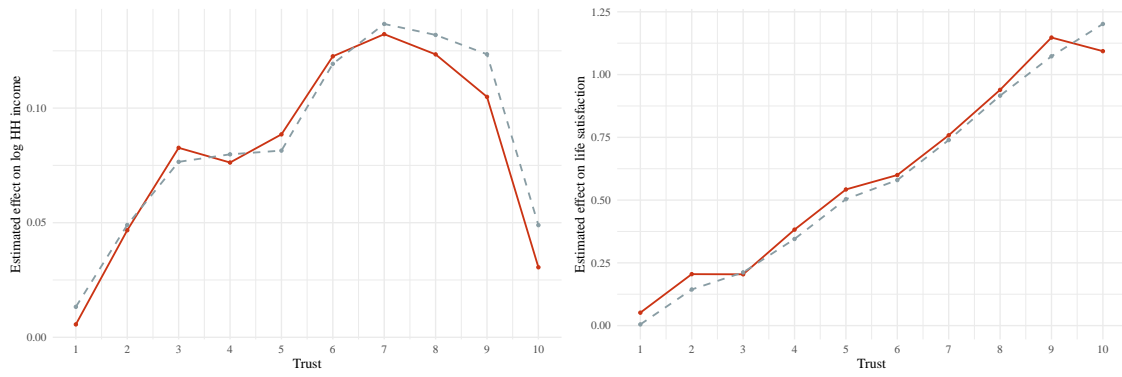


Figure A.3: Trust and income/life satisfaction with (solid) and without (dashed) sampling weights in the ESS data.

The right panel shows an analogous graph for the trust-life satisfaction relationship. Regression specifications are the same as in Figure 1a.

B Additional information and results for the SHP data

B.1 Variable description

In what follows, we describe the SHP variables that we used for our analyses. Table B.2 provides descriptive statistics for all SHP variables. Average trust and life satisfaction are around 6 and 8, respectively, which is above the corresponding values in the ESS data, but, as later shown in Appendix C.1, very similar to Sweden.

Table B.1: Description of SHP variables used

	Description/Encoding	Underlying SHP Variable
<u>Main variables</u>		
Trust	“You can’t be too careful” (0) up to “most people can be trusted” (10)	pXXp45
Life satisfaction	How satisfied with life in general - from 0 (not at all satisfied) to 10 (completely satisfied)	pXXc44
Log of net household income	Log of annual net household income in CHF, with some imputations for missing years (done by FORS, the data provider)	ihnyi
Log of net personal income	Log of net personal income, with some imputations for missing years (done by FORS, the data provider)	iptotni
<u>Pro-social/-env. variables</u>		
Envir. org. member	Associational membership: protection of the environment - 0 (no member), 1 (passive member), 2 (active member)	pXXn44
Charity member	Associational membership: charitable organization - 0 (no member), 1 (passive member), 2 (active member)	pXXn45
Donated	Whether or not made any donations to an organization or person outside of kinship (I assume in past year, reference frame not entirely clear from questionnaire) - 1 if yes, 0 if not	pXXn53
ln(Donation)	Log of reported monetary donations	pXXn54
Voting frequency	Suppose there are 10 federal polls in a year - how many do you take part in? - from 0 (0 times voting) to 10 (10 times voting)	pXXp06
Environment > growth	Opinion on environmental protection - in favor of stronger economic growth (-1), neutral (0), in favor of stronger protection of the environment (1)	pXXp16

More env. spending	Public expenses: protection of the environment - spend less (-1), the same (0) or more (1)	pXXp53
Buy eco-friendly	Protection of the environment: Buy eco-friendly/organic - never (0) to 10 (always)	pXXp79
Buy seasonal fruit/veg.	Protection of the environment: buy seasonal fruits and vegetables - never (0) to 10 (always)	pXXp80
Voluntary work	Voluntary work - yes (1) or no (0)	pXXn35
<u>Personal tragedy variables</u>		
Death of relative	Death of closely related person - 1 if yes, 0 if no	pXXl11
<u>Socioeconomic variables</u>		
Male	1 if male, 0 if not	sexXX
Age	Age in years	ageXX
Education (years)	Years of education, deduced from ISCED class	edyearXX
Married	1 if married, 0 if not (incl. registered partnerships)	civstaXX
Divorced	1 if separated or divorced, 0 if not	civstaXX
Widowed	1 if widow/-er, 0 if not	civstaXX
Number of children	Number of children born to household	ownkidXX
Household size	Number of persons in household	nbpersXX
Potential experience	Potential experience, calculated as the maximum between Age - years of education - 6 and 0	
Full time	Working full time (min 37h/week) - 1 if yes, 0 if no	occupaXX
In training	In school/training - 1 if yes 0 if no	occupaXX
Unemployed	1 if unemployed, 0 if not	wstatXX
Out of labor force	1 if out of labor force, 0 if not	wstatXX
Church freq.	Participation in relig. services: frequency - never (1), only for family ceremonies (2), only for religious celebrations (3), religious celebrations and family events (4), a few times a year (5), about once a month (6), every two weeks (7), once a week (8), several times a week (9)	pXXr04
Christian	1 if yes, 0 otherwise - taken from the year before/after (whichever is closest) in years where question was not asked	pXXr01
Muslim	1 if yes, 0 otherwise - taken from the year before/after (whichever is closest) in years where question was not asked	pXXr01
Catholic	1 if yes, 0 otherwise - taken from the year before/after (whichever is closest) in years where question was not asked	pXXr01
Protestant	1 if yes, 0 otherwise - taken from the year before/after (whichever is closest) in years where question was not asked	pXXr01
Atheist	1 if yes, 0 otherwise - taken from the year before/after (whichever is closest) in years where question was not asked	pXXr01
Health	Health status - 1 (not well at all) to 5 (very well)	pXXc01
Health worsened	1 if health worsened in last 12 months, 0 otherwise	pXXc03

Canton	Canton of residence - 1 (AG), 2 (AI), 3 (AR), 4 (BE), 5 (BS), 6 (BL), 7 (FR), 8 (GE), 9 (GL), 10 (GR), 11 (JU), 12 (LU), 13 (NE), 14 (NW), 15 (OW), 16 (SG), 17 (SH), 18 (SO), 19 (SZ), 20 (TG), 21 (TI), 22 (UR), 23 (VD), 24 (VS), 25 (ZG), 26 (ZH)	cantonXX
Region	Region of residence - 1 Lake Geneva (VD, VS, GE); 2 Middleland (BE, FR, SO, NE, JU); 3 North-west Switzerland (BS, BL, AG); 4 Zurich; 5 Eastern Switzerland (GL, SH, AR, AI, SG, GR, TG); 6 Central Switzerland (LU, UR, SZ, OW, NW, ZG); 7 Ticino	regionXX
Trust government	Trust in the federal government - 0 (no confidence) to 10 (complete confidence)	pXXp04
Big Five: reserved	Big Five 10: I see myself as someone who is reserved - 0 (completely disagree) to 10 (completely agree)	pXXc60
Big Five: trusting	Big Five 10: I see myself as someone who is generally trusting - 0 (completely disagree) to 10 (completely agree)	pXXc61
Big Five: thorough job	Big Five 10: I see myself as someone who does a thorough job - 0 (completely disagree) to 10 (completely agree)	pXXc62
Big Five: relaxed	Big Five 10: I see myself as someone who is relaxed, handles stress well - 0 (completely disagree) to 10 (completely agree)	pXXc63
Big Five: imagination	Big Five 10: I see myself as someone who has an active imagination - 0 (completely disagree) to 10 (completely agree)	pXXc64
Big Five: sociable	Big Five 10: I see myself as someone who is outgoing, sociable - 0 (completely disagree) to 10 (completely agree)	pXXc65
Big Five: fault	Big Five 10: I see myself as someone who tends to find fault with others- 0 (completely disagree) to 10 (completely agree)	pXXc66
Big Five: lazy	Big Five 10: I see myself as someone who tends to be lazy - 0 (completely disagree) to 10 (completely agree)	pXXc67
Big Five: nervous	Big Five 10: I see myself as someone who get nervous easily - 0 (completely disagree) to 10 (completely agree)	pXXc68
Big Five: artistic	Big Five 10: I see myself as someone who has artistic interests - 0 (completely disagree) to 10 (completely agree)	pXXc69
<u>Social origin variables</u>		
Electoral status	Electoral status: 1 if allowed to vote, 0 if not	pXXp05
Centr_eur	Region of origin: Central Europe - includes Austria, Belgium, Denmark, Finland, France, Germany, Liechtenstein, Netherlands, Sweden, UK	pXXo20, pXXo23, pXXo37, pXXo40, nat_1_XX, nat_2_XX, nat_3_XX

South_eur	Region of origin: Southern Europe - includes Greece, Italy, Portugal, Spain	pXXo20, pXXo23, pXXo37, pXXo40, nat_1_XX, nat_2_XX, nat_3_XX
East_eur	Region of origin: Eastern Europe - includes Czech Republic, Hungary, Poland, Romania, Russia, Slovakia, Turkey	pXXo20, pXXo23, pXXo37, pXXo40, nat_1_XX, nat_2_XX, nat_3_XX
Ex_Yugo	Region of origin: Albania and Ex-Yugoslavia - includes Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Serbia, Slovenia, and Yugoslavia (nomenclature in accordance with SHP codebook).	pXXo20, pXXo23, pXXo37, pXXo40, nat_1_XX, nat_2_XX, nat_3_XX
<u>Admin variables</u>		
idpers	Personal identifier	idpers
idhous	Household identifier (to be used in conjunction with year)	idhousXX
year	Year of wave/interview period start	-
weights_css	Individual-level cross-sectional sampling weights (keeping sample size)	weipXXts

Table B.2: Summary statistics - SHP

Statistic	N	Mean	St. Dev.	Min	Max
Trust	111,196	6.154	2.253	0	10
Life satisfaction	111,196	8.040	1.398	0	10
Log of net personal income	106,668	10.634	0.965	2.303	15.521
Log of net household income	111,195	11.510	0.589	4.605	15.638
Age	111,196	49.269	17.302	18	100
Male	111,196	0.443	0.497	0	1
Unemployed	111,196	0.016	0.127	0	1
Out of labor force	111,196	0.294	0.456	0	1
Married	111,196	0.594	0.491	0	1
Divorced	111,196	0.101	0.301	0	1
Full time	111,132	0.347	0.476	0	1
In training	111,132	0.080	0.271	0	1
Household size	111,196	2.771	1.322	1	12
Number of children	109,875	1.559	1.319	0	14
Health	111,196	4.029	0.655	1	5
Health worsened	111,130	0.130	0.336	0	1
Education (years)	111,196	13.464	3.065	8	21
Potential experience	111,196	29.812	17.590	0	84
Death of relative	111,142	1.772	0.420	1	2
Charity member	71,963	0.337	0.596	0	2
Donated	21,920	0.677	0.467	0	1
ln(Donation)	14,166	5.889	1.316	0	12.429
Volunt. work	86,400	0.472	0.499	0	1
Voting frequency	61,709	7.720	3.054	0	10
Envir. org. member	71,973	0.222	0.469	0	2
Buy eco-friendly	21,792	5.786	2.544	0	10
Buy seasonal fruit/veg.	21,863	7.514	2.221	0	10
More env. spending	21,530	0.603	0.548	-1	1
Environment > growth	65,648	0.345	0.742	-1	1
Trust in government	66,458	5.667	2.115	0	10
Muslim	106,307	0.011	0.103	0	1
Catholic	106,307	0.407	0.491	0	1
Protestant	106,307	0.378	0.485	0	1
Atheist	106,307	0.149	0.356	0	1
Church freq.	106,401	3.982	2.148	1	9
Big Five: artistic	71,843	5.693	2.738	0	10
Big Five: fault	71,766	3.515	2.096	0	10
Big Five: imagination	71,795	6.892	1.950	0	10
Big Five: lazy	71,755	3.326	2.350	0	10
Big Five: nervous	71,805	3.993	2.367	0	10
Big Five: reserved	71,775	4.243	2.786	0	10
Big Five: trusting	71,766	7.193	1.672	0	10
Big Five: relaxed	71,830	6.973	1.748	0	10
Big Five: sociable	71,837	7.409	1.708	0	10
Big Five: thorough job	71,737	8.254	1.300	0	10

B.2 Empirical approach

For the SHP we have the estimation equation

$$y_{it} = \beta_0 + \sum_{k=1}^{10} \beta_k \mathbf{1}(Trust_{it} = k) + \delta X_{it} + \eta_t + \eta_c + \epsilon_{it}, \quad (2)$$

where y_{it} is the outcome of interest for individual i at time t , η_c are canton fixed effects, η_t are year fixed effects, and X_{it} is a vector of individual controls. Cantons are the Swiss equivalent of states in the United States, with both countries sharing a federalist system.

As an additional identification strategy aimed at the trust-well-being relationship, we run a matched difference-in-differences regression on trust and well-being leveraging exogenous happiness shocks. This approach largely mirrors the method used by Liberini et al. (2017) and focuses on a comparison between couples where one spouse died and similar couples who were spared that fate in the period under observation. Based on information in the SHP, we select individuals who are observable for at least three years prior and three years after the death of the spouse (i.e. a total of 6 years) and match those individuals with control individuals. When doing so, we make sure to select control individuals who are observable for the entire time frame for which we have well-being data (2003-2017) to avoid missing control observations around the time of the death of the spouse of the matched treated individual. To this end, we employ nearest neighbor matching (with replacement) based on age, age squared, reported health, a labor force participation indicator and an indicator denoting whether or not the respondent's health has worsened in the past year. Propensity scores were generated in a logit model using data from 2005, which is before the first treatment couples incurred a fatality. With this matched dataset, we run a difference-in-differences regression based on two years before the death of

the spouse (excluding the year immediately before the death to prevent anticipation effects) and one or two survey waves after the event, which we consider the “treatment periods”. In Appendix B.3.2 below we provide a set of standard balancing tests comparing treatment and control individuals based on observables (Tables B.4 and B.5), the table with the main estimates (Table B.6), and graphical evidence on the parallel trend assumption (Figures B.1 and B.2). Treatment and control groups have virtually identical pre-treatment values, and two-sample t-tests cannot reject balance in all the covariates considered at all conventional significance levels.

For our IV approach, we take a subsample of individuals who (i) have at least one parent who is a citizen of a different country (discarding cases where parents are from two different non-Swiss countries), (ii) were living with at least one of the foreign parents at the age of 15, and (iii) were either born in Switzerland or lived there for at least 15 years at the time they are first recorded in the survey. The last restriction is intended to counteract the possibility that effects on behavioral outcomes are primarily driven by individuals self-selecting to migrate based on factors relevant to the dependent variables under examination in the present study. Ensuring that the time of migration is reasonably far in the past (or in case of second generation immigrants, that the decision was not even up to the individual) precludes any short to medium term links between the act of migration and the reported attitudes and behaviors.

For this subsample, inherited trust is estimated based on cohort-specific country of origin fixed effects $\kappa_{c_origin_cohort}^i$ in the following auxiliary regression model:

$$Trust_{jt} = \sum_{k=1}^3 \mathbb{1}(cohort_j = k) \kappa_{c_origin_cohort_k}^i + \delta X_{jt} + u_{jt}, j \neq i \quad (3)$$

The i superscript reflects the fact that we exclude observations of individual i ,

as well as those of other household members of i , in the estimation of the inherited trust component to prevent any mechanical correlation between i 's trust and the instrument. The vector of covariates X_{jt} includes age, age squared, years of education, log household income, labor force participation and religion (Christian, Muslim, Atheist or other). In Appendix B.5.2, we also use instruments based on an auxiliary regression where X_{jt} is limited to age and age squared, which produces very similar results. Cohorts are determined by the age of the individual in 2000, with cohort 1 encompassing those aged 34 or younger, cohort 2 those aged between 35 and 54, and cohort 3 those aged 55 or older in that year. These cohorts have been chosen such that they are approximately one generation apart and roughly equal in size in terms of the number of observations per cohort.

The cohort-specific country of origin fixed effect thus represents an estimate of the prevailing level of trust at a given time period (see Table B.14 for those estimates).

With these instrument values, the first stage takes the form

$$Trust_{it} = \alpha_0 + \alpha_1 \underbrace{\sum_{k=1}^3 \mathbb{1}(cohort_i = k) \kappa_{c_origin_cohort_k}^i}_{= \text{inherited trust}} + \gamma X_{it} + \rho_{reg_CH} + \rho_t + \rho_{reg_orig} + v_{it}, \quad (4)$$

where X_{it} is a vector of controls, $\rho_{reg_CH}, \rho_t, \rho_{reg_orig}$ are region of residence, time and region of origin fixed effects, respectively. The latter account for any time-invariant region-specific factors such as culture and customs that may be transmitted from parents to their offspring along with a given level of trust.² The second stage of the IV estimation is

²Regions of origin are grouped into Albania and ex-Yugoslavia, Central Europe, Eastern Europe, and Southern Europe. There are few individuals from other regions of the world (the base category) in the sample, as for conservative purposes every country of origin with less than 60 observations was dropped from the estimation.

$$y_{it} = \delta_0 + \beta Trust_{it} + \delta X_{it} + \eta_{reg_CH} + \eta_t + \eta_{reg_orig} + \epsilon_{it}, \quad (5)$$

i.e. trust enters the model linearly as opposed to the dummy variables used in the baseline OLS specification.

B.3 Trust and income/life satisfaction

In this section, we provide a variety of additional evidence in support of a hump-shaped relationship between trust and income, and a positive effect of trust on reported life satisfaction. In Table B.3, we first present the full regression table which underlies our trust-income/life satisfaction relationship as shown in Figure 1b. Subsequently, we show that the death of a spouse does not affect reported trust despite the large impact on reported well-being in our matched difference-in-differences estimation. Tables B.4 and B.5 provide the standard balance of covariates, B.6 the main effects, and Figures B.1 and B.2 evidence on parallel trends). Lastly, we use our inherited trust instruments in a series of regressions of life satisfaction on trust, with Table B.7 showing strong positive effects consistent with our evidence based on our other data sources and approaches.

B.3.1 Full table of estimates displayed in the main part

Table B.3 provides the full regression table corresponding to our estimates for the relationship between trust and log household income/life satisfaction in the SHP as displayed in Figure 1b. An F-test rejects equality of coefficients for Trust = 9 and Trust = 10 for log household income, log personal income and life satisfaction at the 10%-level or higher, which supports our observation that income maximizing level of trust is located somewhere between 7 and 9 in the Swiss data, while the well-being optimum appears to be at the maximum of the trust scale.

Table B.3: Regression estimates for trust and income/life satisfaction in the SHP data corresponding to Figure 1b

	ln(HH inc.)	ln(pers inc.)	Life satisf.
	(1)	(2)	(3)
Trust = 1	0.018 (0.029)	0.059 (0.040)	-0.054 (0.133)
Trust = 2	0.066*** (0.021)	0.076*** (0.028)	0.086 (0.083)
Trust = 3	0.066*** (0.020)	0.085*** (0.028)	0.023 (0.075)
Trust = 4	0.097*** (0.020)	0.063** (0.027)	-0.068 (0.079)
Trust = 5	0.096*** (0.018)	0.088*** (0.024)	0.234*** (0.068)
Trust = 6	0.145*** (0.019)	0.134*** (0.026)	0.170** (0.070)
Trust = 7	0.152*** (0.019)	0.158*** (0.025)	0.303*** (0.069)
Trust = 8	0.148*** (0.019)	0.158*** (0.026)	0.509*** (0.069)
Trust = 9	0.159*** (0.022)	0.161*** (0.029)	0.708*** (0.074)
Trust = 10	0.123*** (0.023)	0.116*** (0.031)	0.807*** (0.080)
Age	0.119* (0.062)	0.300*** (0.072)	-0.271*** (0.097)
Age ²	0.0001*** (0.0001)	-0.00003 (0.0001)	0.001*** (0.0001)
Education (years)	-0.083 (0.061)	-0.223*** (0.071)	0.212** (0.095)
Male	-0.014 (0.011)	0.401*** (0.013)	-0.182*** (0.031)
Unemployed	-0.271*** (0.032)	-0.383*** (0.045)	-0.955*** (0.107)
Out of labor force	-0.162*** (0.014)	-0.335*** (0.021)	-0.020 (0.035)
Health	0.055*** (0.005)	0.040*** (0.007)	0.704*** (0.019)
Full time	0.151*** (0.011)	0.472*** (0.014)	0.032 (0.031)
In training	-0.112*** (0.036)	-0.533*** (0.052)	0.086 (0.076)
Married	0.177*** (0.013)	-0.210*** (0.016)	0.297*** (0.038)
Divorced	-0.028* (0.016)	0.059*** (0.018)	-0.154*** (0.048)
No. HH. members	0.166*** (0.005)	-0.017*** (0.007)	-0.046*** (0.014)
No. children	-0.052*** (0.004)	-0.011** (0.005)	0.015 (0.013)
Potential experience	-0.108* (0.061)	-0.280*** (0.071)	0.222** (0.096)
Potential experience ²	-0.0003*** (0.00005)	-0.0001 (0.0001)	-0.0001 (0.0001)
Electoral status			0.114 (0.072)
Recent death of relative			-0.009 (0.020)
Canton FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
p(Trust 9 = Trust 10)	0.05	0.04	0.05
Observations	69,707	66,642	39,978
Adjusted R ²	0.389	0.409	0.203

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. “p(Trust 9 = Trust 10)” denotes the p-value of an F-test for equality of coefficients for Trust = 9 and Trust = 10. The pattern also translates to household income, which is not on display in the main part of the paper. Estimates are generated using cross-sectional sampling weights.

B.3.2 Spousal deaths as exogenous well-being shocks

As highlighted in Table B.4, individuals losing their spouse tend to be older, unhealthier, and more likely female when we compare them to potential control individuals. As shown in Table B.5, our matching approach removes these imbalances for all the matching variables considered. We find, as shown in Table B.6, that the death of a spouse causes a large decrease in reported well-being in the two subsequent years, but see no effects on trust.

Finally, Figures B.1 and B.2 show that treatment and control groups have virtually identical pre-treatment values. In other words, we not only have parallel trends, but also a pronounced similarity in levels, which further enhances our confidence in the comparability of our matched treatment and control individuals.

Table B.4: Covariate balance before matching

Variable	Mean treated	Mean controls	Difference	p(Diff. = 0)
Age	63.61	36.82	26.8	0
Age ² /1000	4.2	1.67	2.53	0
ln(HH inc.)	11.27	11.45	-0.18	0.03
Male	0.16	0.39	-0.23	0
Health	3.9	4.1	-0.2	0.01
Health worsened	0.1	0.12	-0.03	0.18
Out of labor force	0.65	0.3	0.35	0
N treated	88			
N controls	344			

Table B.5: Covariate balance after matching (nearest neighbor, with replacement)

Variable	Mean treated	Mean controls	Difference	p(Diff. = 0)
Age	63.61	62.03	1.58	0.5
Age ² /1000	4.2	4.02	0.18	0.5
ln(HH inc.)	11.27	11.39	-0.12	0.26
Male	0.16	0.16	0	1
Health	3.9	3.98	-0.08	0.5
Health worsened	0.1	0.11	-0.02	0.77
Out of labor force	0.65	0.69	-0.05	0.57
N treated	62			
N controls	62			

Table B.6: Impact of spousal death on happiness and trust

	Lf. satisf.	Trust	Lf. satisf.	Trust
	(1)	(2)	(3)	(4)
Death period	0.005 (0.243)	0.508* (0.279)		
Death period ₂			-0.168 (0.239)	0.366 (0.248)
Treatment = 1	-0.217 (0.250)	-0.167 (0.381)	-0.205 (0.247)	-0.164 (0.380)
Age	-0.064 (0.050)	0.016 (0.055)	-0.052 (0.051)	0.015 (0.059)
Age ² /1000	0.693* (0.417)	-0.004 (0.428)	0.567 (0.419)	-0.025 (0.455)
Male	0.352 (0.264)	0.188 (0.485)	0.085 (0.250)	0.057 (0.459)
ln(HH inc.)	-0.032 (0.251)	0.258 (0.271)	0.028 (0.207)	0.230 (0.264)
Health	0.668*** (0.166)		0.717*** (0.145)	
Death period * treatment	-1.192*** (0.354)	-0.118 (0.343)		
Death period ₂ * treatment			-0.652** (0.314)	-0.121 (0.266)
Year FE	Yes	Yes	Yes	Yes
Observations	372	372	496	496
Adjusted R ²	0.184	0.027	0.151	0.040

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. “Death period” denotes the year when the death of the spouse was first recorded in the data. “Death period₂” adds the year after “Death period” as well, such that the treatment effect is averaged over those two years. Both types of regressions include two pretreatment years, excluding the year just before the death was recorded to remove potential anticipation effects.

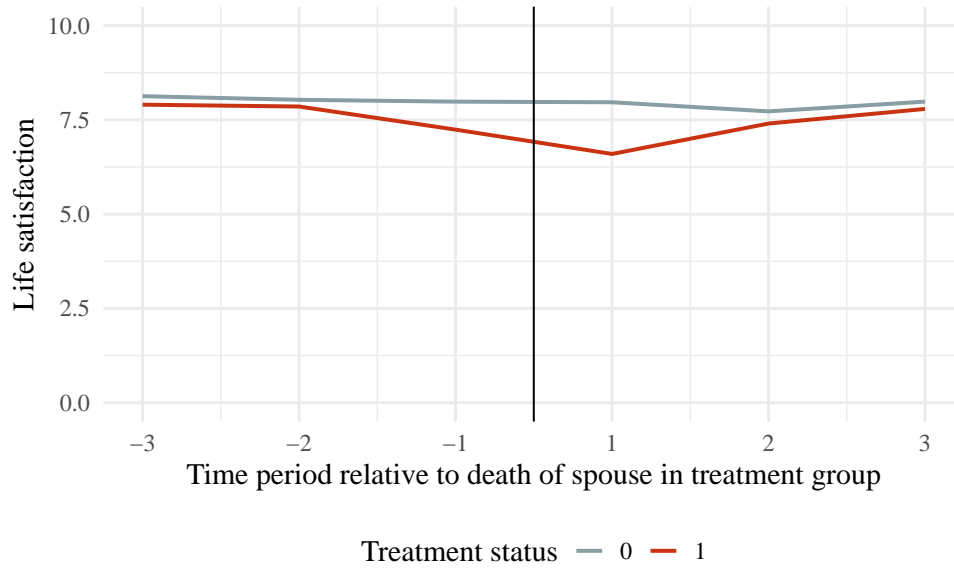


Figure B.1: Difference-in-differences plot of spousal death and life satisfaction.

We exclude period -1 to remove potential anticipation effects, and we cannot reject equality of life satisfaction across treatment status in the two other pre-treatment years, supporting the parallel trends assumption.

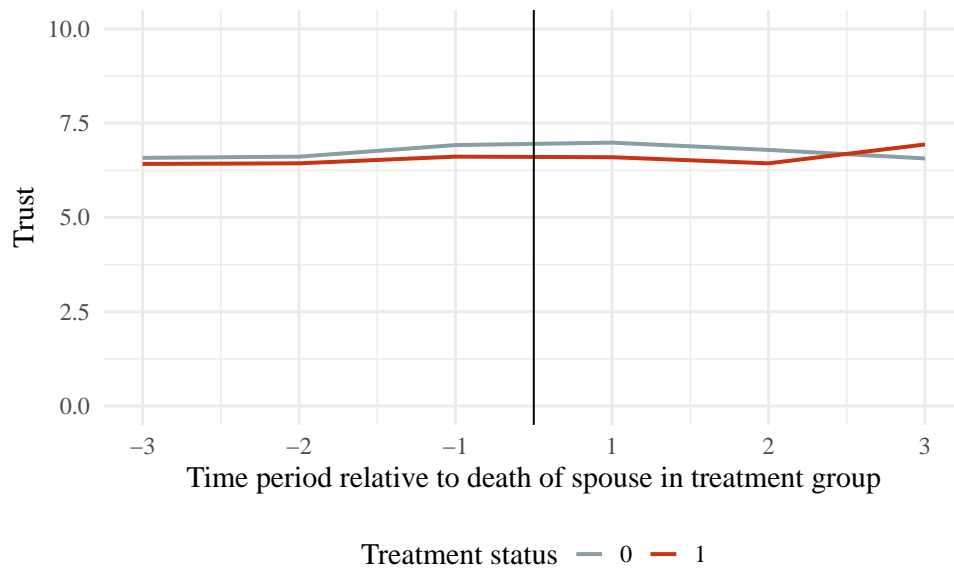


Figure B.2: Difference-in-differences plot of spousal death and trust.

We exclude period -1 to remove potential anticipation effects, and we cannot reject equality of trust across treatment status in the two other pre-treatment years, supporting the parallel trends assumption.

B.3.3 Instrumental variable estimates for trust and well-being

In this section, we examine the relationship between trust and life satisfaction using our inherited trust instrument. Table B.7 provides the main estimates. This approach confirms our main results presented in Section 3. That is, we find sizable positive effects across various specifications, particularly once we focus on a series of binary specifications where we compare low/medium trust individuals with high-trust respondents. Given that the standard deviation of trust is slightly above 2 in our sample, the binary specifications, which tend to compare people with trust levels of 6 or lower to respondents with trust levels of 9 and 10, cover more than two standard deviations in trust on average.

B.4 Trust and cooperative outcomes

In this section, we start by providing two additional plots of the observed (descriptive) relationship between trust, pro-social behavior, and well-being for outcomes where we have a larger set of possible responses, which renders the variables closer to a continuous measure than most of the other (mainly binary) indicators at our disposal. Consistent with the presented evidence on voting and donation amounts, we find that individuals who purchase eco-friendly products as well as seasonal produce with greater frequency exhibit a higher life satisfaction on average, with the highest well-being located at a point where both trust and the degree of reported pro-social behavior is high.

Next, we provide a more systematic analysis of the pro-social/pro-environmental outcomes under consideration. As a first set of cooperative outcomes, we consider membership in a charitable organization, both the intensive and extensive margins of donations, as well as reported engagement in voluntary work. In light of the frequent votes and elections taking place in Switzerland, where being called to the ballots four times a year on a variety of local, regional and national issues is quite common, we also focus on the reported voting frequency as a further indicator of engagement. Voting frequency takes values from 0 to 10 and denotes how often an individual would go and vote in a hypothetical scenario of 10 (unspecified) votes. Tables B.8, B.12, B.9, and B.13 provide the main results. We start with Table B.8. Similar to the ESS results, in Table B.8 we observe increasing coefficients as we move up the trust scale, indicating a higher degree of reported cooperation for high trust individuals. Table B.8 also indicates that the estimates for trust = 10 are significantly larger (at 10%-level or lower) than the Swiss median level of 7 for all outcomes, with only one exception (the extensive margin of donations). We replicate these findings by applying our IV ap-

proach, the estimates for which are displayed in Table B.12. These estimates provide additional evidence on the positive relationship between trust and these outcomes, with all trust coefficients being significant at the 10%-level or lower (see Table B.12). Then, we extend our analyses to a broad range of outcomes related to environmental attitudes and behaviors, namely membership in an environmental organization, reported frequency of buying eco-friendly/organic and seasonal products, support for more government spending on environmental issues, reported position in a hypothetical trade-off between economic growth and the environment. Table B.9 provides the main results. Again, we see a persistent pattern: high-trust individuals consistently report both more favorable attitudes towards environmental issues as well as a higher frequency of green behaviors as captured by the purchase of eco-friendly products and seasonal fruit and vegetables. As before, we replicate these findings by applying our IV approach, the estimates for which are displayed in Table B.12. Table B.12 confirms our previous findings.

Finally, Tables B.10 and B.11 provide first-stage estimates for all the estimations using an IV approach (as reported in Tables B.12 and B.13). In all estimations the (Kleibergen-Paap) F-statistics comfortably pass the conventional thresholds. Further, in Table B.14 we also display the estimated averages of the inherited trust instrument values by cohort and country of origin.

B.4.1 Additional descriptive plots for trust, cooperative outcomes, and well-being

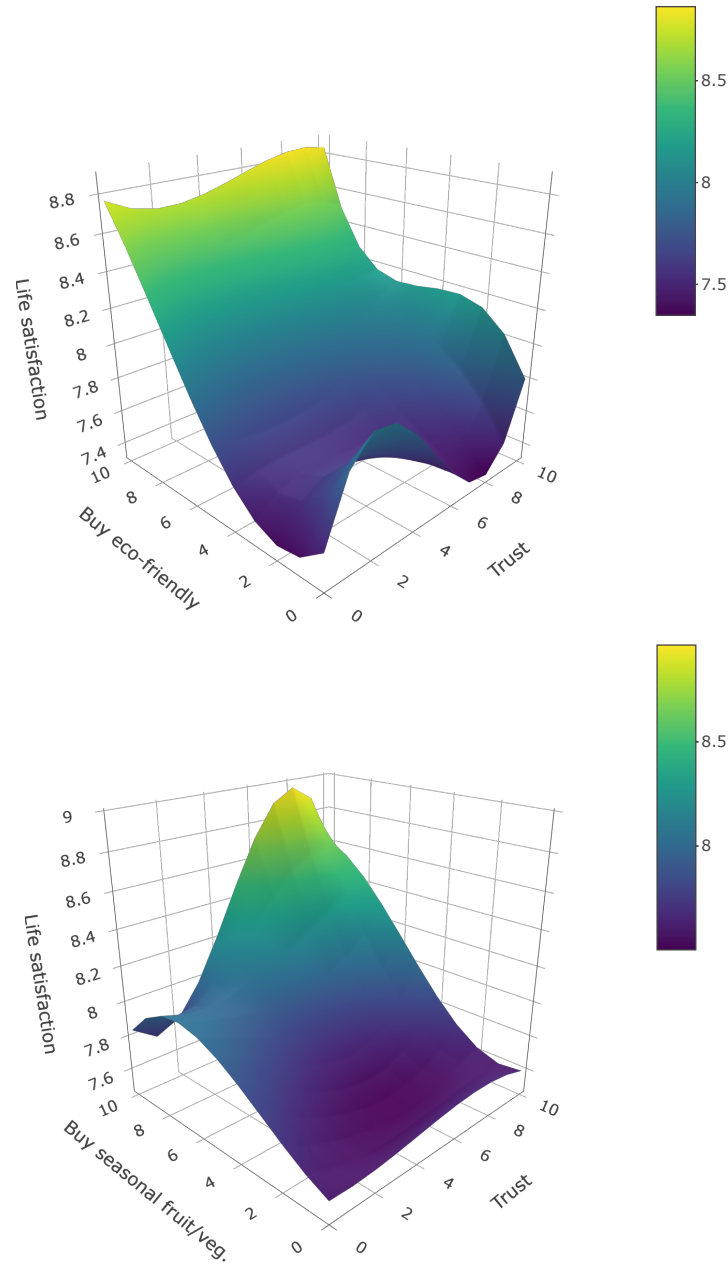


Figure B.3: Pro-social behavior, trust and life satisfaction in the SHP data.

The top panel shows the descriptive relationship between trust, the reported frequency of buying eco-friendly products (higher value equals higher frequency), and reported life satisfaction. The bottom panel indicates the corresponding relationship between trust, the reported frequency of buying seasonal fruits and vegetables, and life satisfaction. The graphs are constructed using smoothed means of life satisfaction across the trust/pro-social behavior grid, based on a third order polynomial (and corresponding two-way interaction terms) of trust and the respective pro-social behavior.

B.4.2 Baseline regressions

Table B.8: OLS estimates for trust and cooperative/pro-social behavior in the SHP data in Table 2

	Charity member (1)	Donated (2)	ln(Donation) (3)	Voluntary work (4)	Voting frequency (5)
Trust = 1	0.030 (0.024)	-0.014 (0.048)	-0.150 (0.199)	0.017 (0.024)	0.221 (0.212)
Trust = 2	0.048*** (0.015)	0.040 (0.030)	0.281** (0.120)	0.032** (0.014)	0.381*** (0.133)
Trust = 3	0.034** (0.014)	0.080*** (0.026)	0.233** (0.101)	0.047*** (0.013)	0.589*** (0.119)
Trust = 4	0.052*** (0.013)	0.083*** (0.024)	0.100 (0.096)	0.065*** (0.013)	0.892*** (0.116)
Trust = 5	0.062*** (0.011)	0.117*** (0.021)	0.157* (0.087)	0.083*** (0.011)	0.891*** (0.107)
Trust = 6	0.104*** (0.012)	0.158*** (0.022)	0.343*** (0.088)	0.117*** (0.012)	1.210*** (0.112)
Trust = 7	0.118*** (0.012)	0.194*** (0.021)	0.383*** (0.086)	0.150*** (0.011)	1.360*** (0.110)
Trust = 8	0.147*** (0.012)	0.222*** (0.021)	0.479*** (0.087)	0.160*** (0.011)	1.444*** (0.112)
Trust = 9	0.210*** (0.017)	0.210*** (0.023)	0.610*** (0.094)	0.203*** (0.014)	1.566*** (0.123)
Trust = 10	0.174*** (0.017)	0.202*** (0.025)	0.604*** (0.098)	0.177*** (0.015)	1.495*** (0.127)
Age	0.013*** (0.001)	0.021*** (0.001)	0.031*** (0.006)	0.012*** (0.001)	0.029*** (0.010)
Age ²	-0.0001*** (0.00001)	-0.0001*** (0.00001)	-0.0001 (0.0001)	-0.0001*** (0.00001)	0.0001 (0.0001)
ln(HH inc.)	0.085*** (0.007)	0.063*** (0.007)	0.522*** (0.028)	0.003 (0.006)	0.557*** (0.043)
Education (years)	0.018*** (0.001)	0.016*** (0.001)	0.067*** (0.005)	0.007*** (0.001)	0.136*** (0.008)
Male	-0.042*** (0.008)	-0.046*** (0.008)	0.162*** (0.030)	0.077*** (0.007)	0.521*** (0.055)
Married	-0.039*** (0.011)	0.003 (0.011)	0.039 (0.039)	0.027*** (0.010)	0.403*** (0.078)
Divorced	-0.071*** (0.015)	-0.041*** (0.015)	-0.151*** (0.051)	-0.035*** (0.013)	-0.413*** (0.118)
Unemployed	-0.040*** (0.016)	-0.100*** (0.027)	-0.379*** (0.104)	-0.038** (0.015)	-0.242* (0.132)
Out of labor force	-0.014 (0.010)	-0.032*** (0.010)	-0.028 (0.037)	-0.018** (0.008)	0.258*** (0.057)
Full time	-0.054*** (0.009)	-0.021** (0.009)	0.030 (0.033)	-0.055*** (0.008)	-0.424*** (0.057)
HH size	-0.007* (0.004)	-0.015*** (0.004)	-0.115*** (0.016)	0.015*** (0.003)	0.001 (0.023)
No. children	0.017*** (0.004)	0.001 (0.004)	0.056*** (0.015)	0.017*** (0.003)	-0.080*** (0.024)
Canton FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Range dep. var.	0-2	0-1	0+	0-1	0-10
p(Trust 10 = Trust 7)	0.00	0.61	0.00	0.03	0.08
Observations	71,492	21,489	14,041	85,044	61,320
Adjusted R ²	0.058	0.147	0.208	0.130	0.128

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. "Charity member" denotes membership in a charitable organization - 1 (passive member, i.e. no participation in organization activities) and 2 (active member), and 0 otherwise. "Donated" is a dummy equal to 1 if respondent reports any donations (cash or in-kind) in the past year. "ln(Donation)" denotes the log of monetary donations. "Voluntary work" = 1 if respondent reports having performed voluntary work (and 0 otherwise). "Voting frequency" denotes the reported frequency of participating in federal votes - 0 (never) to 10 (always). "p(Trust 10 = Trust 7)" denotes the p-value of an F-test for equality of coefficients for Trust = 10 and Trust = 7.

Table B.9: Regression estimates for trust and cooperative/pro-social behavior in the SHP data in Table 2 - II

	Envir. org. member (1)	Buy eco-friendly (2)	Buy seasonal fruit/veg. (3)	More envir. spending (4)	Environment > growth (5)
Trust = 1	0.035* (0.021)	0.105 (0.291)	-0.054 (0.290)	0.102* (0.061)	0.021 (0.041)
Trust = 2	0.023* (0.013)	0.518*** (0.185)	0.291* (0.176)	0.055 (0.040)	0.009 (0.027)
Trust = 3	0.025** (0.011)	0.487*** (0.168)	0.119 (0.160)	0.080** (0.035)	0.028 (0.024)
Trust = 4	0.023** (0.010)	0.814*** (0.153)	0.243 (0.149)	0.085** (0.033)	0.069*** (0.023)
Trust = 5	0.042*** (0.009)	0.798*** (0.140)	0.300** (0.136)	0.101*** (0.029)	0.075*** (0.020)
Trust = 6	0.070*** (0.010)	1.064*** (0.142)	0.433*** (0.137)	0.139*** (0.030)	0.104*** (0.021)
Trust = 7	0.094*** (0.009)	1.247*** (0.139)	0.528*** (0.134)	0.185*** (0.029)	0.136*** (0.021)
Trust = 8	0.124*** (0.010)	1.451*** (0.140)	0.693*** (0.135)	0.208*** (0.029)	0.173*** (0.021)
Trust = 9	0.169*** (0.015)	1.623*** (0.154)	0.913*** (0.144)	0.231*** (0.032)	0.220*** (0.024)
Trust = 10	0.157*** (0.016)	1.747*** (0.165)	1.016*** (0.152)	0.226*** (0.034)	0.208*** (0.025)
Age	0.009*** (0.001)	0.059*** (0.009)	0.065*** (0.007)	0.006*** (0.002)	-0.002 (0.002)
Age ²	-0.0001*** (0.00001)	-0.001*** (0.0001)	-0.0004*** (0.0001)	-0.0001*** (0.00002)	-0.00001 (0.00002)
ln(HH inc.)	0.027*** (0.007)	0.427*** (0.043)	-0.086** (0.036)	0.010 (0.009)	-0.082*** (0.009)
Education (years)	0.020*** (0.001)	0.121*** (0.008)	0.039*** (0.006)	0.016*** (0.002)	0.010*** (0.002)
Male	0.010 (0.008)	-0.483*** (0.048)	-0.715*** (0.042)	-0.050*** (0.010)	-0.113*** (0.012)
Married	-0.053*** (0.010)	-0.172*** (0.064)	0.184*** (0.053)	-0.068*** (0.013)	-0.054*** (0.015)
Divorced	-0.042*** (0.013)	-0.249*** (0.088)	-0.047 (0.071)	-0.025 (0.018)	-0.024 (0.020)
Unemployed	-0.038** (0.016)	-0.224 (0.156)	-0.330** (0.148)	-0.030 (0.031)	-0.046* (0.025)
Out of labor force	-0.039*** (0.008)	-0.096 (0.059)	-0.105** (0.049)	0.0002 (0.013)	-0.042*** (0.013)
Full time	-0.076*** (0.008)	-0.176*** (0.052)	-0.181*** (0.046)	-0.076*** (0.011)	-0.066*** (0.012)
HH size	0.005 (0.003)	-0.099*** (0.025)	0.006 (0.021)	-0.007 (0.005)	0.008 (0.005)
No. children	-0.002 (0.003)	-0.053** (0.024)	0.023 (0.019)	-0.013*** (0.005)	0.015*** (0.005)
Canton FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Range dep. var.	0-2	0-10	0-10	[-1,1]	[-1,1]
p(Trust 10 = Trust 7)	0.00	0.00	0.00	0.05	0.00
Observations	71,502	21,368	21,437	21,103	65,205
Adjusted R ²	0.047	0.108	0.105	0.049	0.047

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. "Envir. org. member" = 1 if respondent reports being a passive member of an environmental organization, and 2 for being an active member, and 0 otherwise. "Buy eco-friendly" and "Buy seasonal fruit/veg." denote the reported frequency of buying eco-friendly/organic and seasonal products, respectively - 0 (never) to 10 (always). "More envir. spending" is the reported preference for more (1), the same (0) or less (-1) public spending on the environment. "Environment > growth" is the reported preference for environment (1) or economic growth (-1), with 0 being indifference. "p(Trust 10 = Trust 7)" denotes the p-value of an F-test for equality of coefficients for Trust = 10 and Trust = 7.

B.4.3 IV estimates

Table B.10: Instrumental variable first stage estimates for trust and cooperative/pro-social behavior in the SHP data

	(1)	(2)	(3)	(4)	(5)
	Charity member	Donated	ln(Donation)	Voluntary work	Voting frequency
Inherited trust	0.367*** (0.075)	0.445*** (0.088)	0.552*** (0.104)	0.368*** (0.072)	0.386*** (0.088)
Age	-0.009 (0.016)	-0.008 (0.020)	-0.007 (0.023)	-0.019 (0.015)	-0.006 (0.019)
Age ²	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000* (0.000)	0.000 (0.000)
Male	-0.140 (0.090)	-0.166 (0.105)	-0.240** (0.122)	-0.215** (0.088)	-0.145 (0.106)
Unemployed	-0.448** (0.181)	-0.348 (0.310)	-0.487 (0.460)	-0.559*** (0.184)	-0.403* (0.225)
Out of labor force	-0.405*** (0.102)	-0.255** (0.124)	-0.288** (0.145)	-0.412*** (0.097)	-0.375*** (0.119)
Full time	-0.344*** (0.097)	-0.245** (0.119)	-0.123 (0.136)	-0.375*** (0.098)	-0.399*** (0.113)
Married	0.047 (0.119)	0.074 (0.145)	0.115 (0.164)	0.084 (0.119)	0.097 (0.143)
No. children	0.114*** (0.042)	0.109* (0.056)	0.123** (0.059)	0.124*** (0.044)	0.140*** (0.047)
Divorced	-0.051 (0.158)	-0.001 (0.187)	-0.041 (0.210)	0.002 (0.156)	-0.168 (0.193)
HH size	-0.124*** (0.041)	-0.139** (0.059)	-0.128* (0.071)	-0.149*** (0.045)	-0.165*** (0.046)
Education (years)	0.123*** (0.013)	0.109*** (0.015)	0.093*** (0.017)	0.122*** (0.013)	0.115*** (0.016)
ln(HH inc.)	0.449*** (0.075)	0.496*** (0.098)	0.323*** (0.111)	0.415*** (0.074)	0.422*** (0.087)
No. individuals	3340.000	2099.000	1466.000	2938.000	2320.000
KP F-stat (1 st st.)	23.794	25.846	28.334	25.931	19.024
R ²	0.100	0.110	0.085	0.105	0.084
Observations	13,204	3,944	2,479	15,126	9,419
Region FE	Yes	Yes	Yes	Yes	Yes
Reg. orig. FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. “KP F-stat” denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering).

Table B.11: Instrumental variable first stage estimates for trust and cooperative/pro-social behavior in the SHP data II

	(1)	(2)	(3)	(4)	(5)
	Envir. org. member	Buy eco-friendly	Buy seasonal fruit/veg.	More envir. spending	Environment > growth
Inherited trust	0.367*** (0.075)	0.434*** (0.089)	0.455*** (0.087)	0.451*** (0.088)	0.369*** (0.080)
Age	-0.009 (0.016)	-0.003 (0.020)	-0.004 (0.020)	-0.001 (0.020)	-0.002 (0.017)
Age ²	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Male	-0.139 (0.090)	-0.176* (0.106)	-0.163 (0.105)	-0.169 (0.106)	-0.159* (0.094)
Unemployed	-0.448** (0.181)	-0.273 (0.305)	-0.288 (0.302)	-0.343 (0.308)	-0.385** (0.193)
Out of labor force	-0.405*** (0.102)	-0.241* (0.124)	-0.237* (0.124)	-0.243* (0.125)	-0.386*** (0.108)
Full time	-0.343*** (0.097)	-0.261** (0.120)	-0.249** (0.119)	-0.268** (0.120)	-0.330*** (0.102)
Married	0.047 (0.119)	0.083 (0.144)	0.086 (0.145)	0.093 (0.146)	0.037 (0.125)
No. children	0.115*** (0.042)	0.098* (0.057)	0.113** (0.056)	0.112** (0.056)	0.122*** (0.044)
Divorced	-0.051 (0.158)	0.038 (0.185)	0.001 (0.187)	0.021 (0.190)	-0.081 (0.168)
HH size	-0.124*** (0.041)	-0.139** (0.060)	-0.144** (0.060)	-0.151** (0.060)	-0.132*** (0.043)
Education (years)	0.123*** (0.013)	0.111*** (0.015)	0.110*** (0.015)	0.104*** (0.015)	0.119*** (0.014)
ln(HH inc.)	0.449*** (0.075)	0.490*** (0.098)	0.507*** (0.097)	0.472*** (0.100)	0.454*** (0.080)
No. individuals	3,339	2,095	2,093	2,065	2,978
KP F-stat (1 st st.)	23.936	23.933	27.174	26.235	21.398
R ²	0.100	0.109	0.112	0.107	0.099
Observations	13,202	3,923	3,935	3,845	12,007
Region FE	Yes	Yes	Yes	Yes	Yes
Reg. orig. FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. "KP F-stat" denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering).

Table B.12: Full table of instrumental variable estimates for trust and cooperative/pro-social behavior in the SHP data in Table 2

	(1)	(2)	(3)	(4)	(5)
	Charity member	Donated	ln(Donation)	Voluntary work	Voting frequency
Trust	0.121** (0.052)	0.065* (0.038)	0.454*** (0.145)	0.097** (0.041)	0.726** (0.361)
Age	0.015*** (0.004)	0.016*** (0.004)	0.018 (0.018)	0.010*** (0.003)	0.058** (0.027)
Age ²	-0.000*** (0.000)	-0.000*** (0.000)	0.000 (0.000)	-0.000*** (0.000)	-0.000 (0.000)
Male	-0.020 (0.022)	-0.052*** (0.020)	0.230*** (0.088)	0.069*** (0.020)	0.584*** (0.162)
Unemployed	-0.015 (0.045)	-0.134** (0.058)	-0.163 (0.241)	0.055 (0.041)	0.173 (0.299)
Out of labor force	0.033 (0.035)	-0.057** (0.026)	-0.068 (0.106)	0.014 (0.026)	0.468** (0.230)
Full time	-0.029 (0.029)	-0.015 (0.024)	0.123 (0.095)	-0.036 (0.024)	-0.139 (0.220)
Married	-0.067** (0.028)	-0.007 (0.026)	0.034 (0.115)	0.038 (0.024)	0.296 (0.205)
No. children	0.005 (0.012)	-0.015 (0.010)	-0.065 (0.042)	0.016* (0.010)	-0.128 (0.082)
Divorced	-0.103*** (0.036)	-0.040 (0.033)	0.001 (0.133)	-0.058* (0.030)	-0.826*** (0.304)
HH size	0.003 (0.012)	-0.000 (0.012)	-0.019 (0.049)	0.018* (0.010)	0.114 (0.089)
Education (years)	0.006 (0.008)	0.017*** (0.005)	0.019 (0.018)	0.002 (0.006)	0.114** (0.047)
ln(HH inc.)	0.029 (0.031)	0.040 (0.026)	0.450*** (0.093)	-0.025 (0.022)	0.139 (0.189)
No. individuals	3,340	2,099	1,466	2,938	2,320
KP F-stat (1 st st.)	23.794	25.846	28.334	25.931	19.024
p(AR-Wald)	0.014	0.096	0.000	0.013	0.039
Observations	13,204	3,944	2,479	15,126	9,419
Region FE	Yes	Yes	Yes	Yes	Yes
Reg. orig. FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. “KP F-stat” denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering). “p(AR-Wald)” contains the p-values of an Anderson and Rubin (1949) Wald test robust to weak identification.

Table B.13: Full table of instrumental variable estimates for trust and cooperative/pro-social behavior in the SHP data in Table 2 - II

	(1)	(2)	(3)	(4)	(5)
	Envir. org. member	Buy eco-friendly	Buy seasonal fruit/veg.	More envir. spending	Environment > growth
Trust	0.144*** (0.043)	0.501** (0.236)	0.299 (0.199)	0.095** (0.044)	0.088 (0.065)
Age	0.003 (0.003)	0.058** (0.023)	0.074*** (0.021)	0.000 (0.005)	-0.013*** (0.005)
Age ²	-0.000 (0.000)	-0.001*** (0.000)	-0.000*** (0.000)	-0.000 (0.000)	0.000* (0.000)
Male	0.014 (0.021)	-0.321** (0.128)	-0.541*** (0.109)	-0.037 (0.026)	-0.098*** (0.030)
Unemployed	0.029 (0.043)	-0.407 (0.316)	-0.056 (0.348)	-0.022 (0.074)	-0.125* (0.065)
Out of labor force	0.005 (0.030)	-0.063 (0.161)	-0.071 (0.138)	0.039 (0.033)	0.011 (0.041)
Full time	-0.023 (0.028)	-0.169 (0.146)	-0.246* (0.126)	-0.039 (0.031)	-0.041 (0.036)
Married	-0.041 (0.026)	-0.127 (0.170)	0.193 (0.139)	-0.066** (0.032)	0.012 (0.035)
No. children	-0.015 (0.011)	-0.074 (0.063)	0.004 (0.050)	-0.022* (0.013)	0.020 (0.015)
Divorced	-0.037 (0.035)	-0.299 (0.203)	-0.288* (0.171)	-0.041 (0.041)	0.012 (0.046)
HH size	0.019* (0.011)	-0.083 (0.073)	-0.005 (0.060)	0.011 (0.015)	0.006 (0.016)
Education (years)	-0.003 (0.006)	0.100*** (0.033)	0.034 (0.028)	0.015** (0.006)	0.007 (0.009)
ln(HH inc.)	-0.051* (0.027)	0.267* (0.161)	-0.249* (0.139)	-0.005 (0.032)	-0.107*** (0.037)
No. individuals	3,339	2,095	2,093	2,065	2,978
KP F-stat (1 st st.)	23.936	23.933	27.174	26.235	21.398
p(AR-Wald)	0.000	0.041	0.130	0.029	0.167
Observations	13,202	3,923	3,935	3,845	12,007
Region FE	Yes	Yes	Yes	Yes	Yes
Reg. orig. FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. "KP F-stat" denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering). "p(AR-Wald)" contains the p-values of an Anderson and Rubin (1949) Wald test robust to weak identification.

Table B.14: Inherited trust estimates by country of origin and age cohort

	Country of origin	Cohort 1 (18-34)	Cohort 2 (35-54)	Cohort 3 (55+)
1	Afghanistan	5.119	4.430	5.936
2	Albania	4.044	5.869	4.001
3	Algeria	4.605	6.373	4.020
4	Argentina	5.662	6.509	
5	Austria	5.094	5.248	4.663
6	Belgium	4.448	4.580	3.438
7	Bosnia-Herzegovina	5.252	4.826	
8	Brazil	3.081	3.596	
9	Canada	4.573	4.781	4.556
10	China	4.337	4.783	
11	Colombia	4.658	2.902	
12	Croatia	4.553	3.817	4.562
13	Czech Republic	5.161	3.491	5.005
14	Denmark and territories	5.692	5.855	5.672
15	Egypt	4.001	5.506	5.141
16	Finland	5.673	4.788	5.639
17	France and territories	4.283	4.401	4.744
18	Germany	5.365	5.167	4.681
19	Greece	3.360	5.268	4.537
20	Hungary	4.607	4.774	5.504
21	India	5.173	5.179	
22	Italy	4.139	4.630	4.068
23	Japan	4.610	5.457	
24	Kosovo	4.051	6.471	
25	Lebanon	3.641	6.243	
26	Liechtenstein	4.958	5.558	5.171
27	Macedonia (Ex-Republic of Yugoslavia)	4.119	5.176	
28	Malaysia	7.002	7.786	
29	Morocco	5.789	2.976	
30	Mexico	4.511	4.266	4.266
31	Netherlands and territories	6.366	5.615	5.612
32	Peru	4.848		
33	Philippines	2.148	5.124	3.232
34	Poland	4.358	5.488	5.277
35	Portugal	3.388	3.350	
36	Romania	3.931	4.991	5.358
37	Russia	4.430	4.751	1.174
38	Serbia	3.800	4.762	3.804
39	Slovakia	4.498	4.505	4.647
40	Slovenia	5.996	5.908	5.883
41	Spain and territories	3.879	4.894	4.391
42	Sri Lanka	4.646	3.960	
43	Sweden	4.633	4.488	6.637
44	Thailand	5.503		
45	Tunisia	4.600	4.610	
46	Turkey	4.510	4.752	5.658
47	United Kingdom and territories	4.729	5.624	4.050
48	United States and territories	4.883	5.819	4.836
49	Yugoslavia	5.203	4.330	

Age in year 2000 in parentheses. All cells represent averages across individual estimates. Empty cells denote missing values due to insufficient observations for estimation purposes.

B.5 Robustness tests

In this section, we present the battery of robustness tests applied to the SHP data. The corresponding estimates are presented in Figures B.4 and B.5 and Tables B.15, B.16, B.21, and B.22.

As per standard procedure, we start by presenting the analyses testing the robustness of our findings on the trust-income and trust-well-being relationships to the inclusion of additional controls, in particular related to other forms of trust and religious attitudes as well as the big five personality attributes. Figures B.4 and B.5 provide the corresponding estimates, which confirm our previous findings. Next, we turn to the relationship between trust and cooperative attitudes/behaviors. Tables B.15 and B.16 show that also our results are robust to the inclusion of the above-mentioned additional variables, despite the smaller sample size that some covariates engender (which we partly correct by taking the reported value by the same individual in the wave closest to the year in question when a value is absent for variables such as religion and personality questions). The use of additional controls in the IV approach also does not affect our results. Tables B.17, B.18, B.19, and B.20 provide the corresponding estimates.

As for the ESS data, our findings are also robust to the use of non-linear models, as shown by Tables B.21 and B.22, which provide ordered probit and logit estimates for trust and life satisfaction. That is, also in the case of the SHP data, the observed positive relationship does not depend on the imposed interval scale of the life satisfaction variable in our baseline regressions.

Based on the SHP data, and very much like in the case of the ESS data, increasing trust by 1 point is projected to increase the probability of being in the highest life satisfaction category by about 1.2-1.3% on average.

Finally, we confirm once more that our findings are robust to a last specification change and show, in Figure B.6 and Table B.23, that the use of sampling weights does not affect our estimates in a qualitatively or quantitatively meaningful way.

B.5.1 Additional control variables

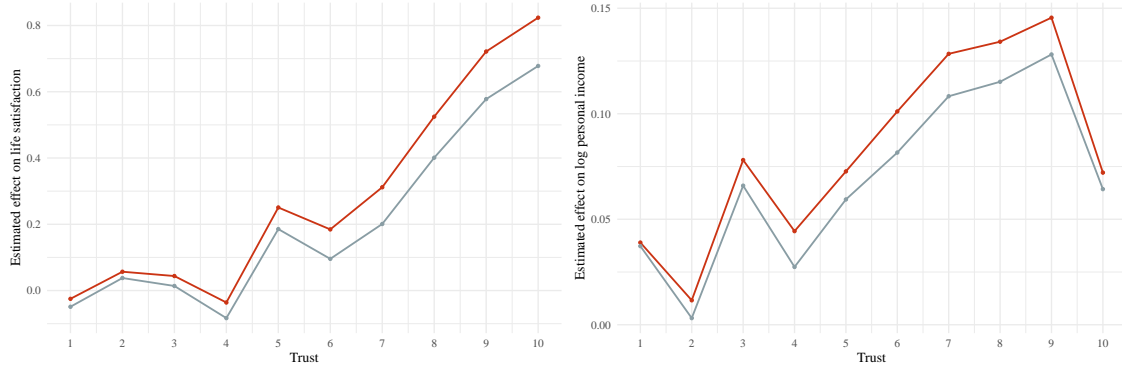


Figure B.4: Trust and life satisfaction (left) and log personal income (right) in the SHP data.

The top line is the baseline (red, based on a regression using the same variables as in Figure 1b) and the gray line below is based on additional controls for the level or trust in the government (10 trust-level dummies), religion (Catholic, Protestant, Muslim, Atheist or other), and the frequency of church attendance. Both regressions in each plot are based on the same observations and use cross-sectional sampling weights.

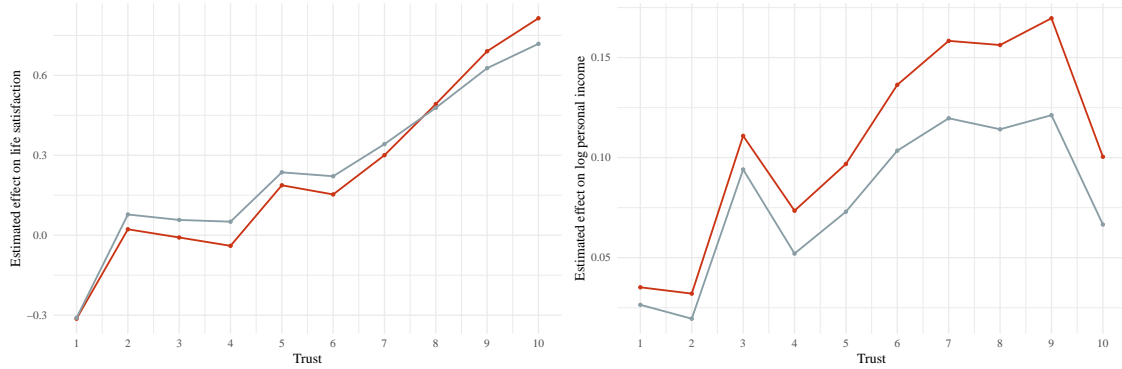


Figure B.5: Trust and life satisfaction (left) and log personal income (right) in the SHP data.

The red line is the baseline (based on a regression using the same variables as in Figure 1b) and the gray line is based on additional controls for 10 items covering the big five personality dimensions (openness, neuroticism, agreeableness, extraversion, conscientiousness). Both regressions in each plot are based on the same observations and use cross-sectional sampling weights.

Table B.15: Trust and cooperative/pro-social behavior and attitudes in the SHP controlling for additional covariates from Figure B.4.

	Behaviors - Pro-social			Behaviors - Pro-environmental			Attitudes - Pro-environmental			
	Charity member	Donated	ln(Donation)	Voluntary work	Voting frequency	Envir. org. member	Buy eco-friendly	Buy seasonal fruit/veg.	More env. spending	Environment > growth
OLS estimates										
Trust = 1	0.021 (0.026)	-0.038 (0.053)	-0.205 (0.223)	0.005 (0.034)	0.235 (0.213)	0.035 (0.023)	0.126 (0.319)	-0.003 (0.305)	0.093 (0.066)	0.025 (0.043)
Trust = 2	0.044*** (0.017)	0.033 (0.034)	0.255** (0.126)	0.031 (0.021)	0.218* (0.132)	0.018 (0.014)	0.435** (0.203)	0.305 (0.192)	0.051 (0.044)	0.009 (0.028)
Trust = 3	0.029* (0.015)	0.064** (0.029)	0.194* (0.108)	0.026 (0.019)	0.383*** (0.120)	0.026** (0.012)	0.456** (0.182)	0.166 (0.174)	0.061 (0.039)	0.018 (0.025)
Trust = 4	0.033** (0.014)	0.060** (0.027)	0.033 (0.104)	0.018 (0.018)	0.648*** (0.114)	0.013 (0.011)	0.733*** (0.164)	0.222 (0.161)	0.059 (0.036)	0.055** (0.024)
Trust = 5	0.047*** (0.012)	0.089*** (0.024)	0.088 (0.094)	0.043** (0.015)	0.640*** (0.106)	0.040*** (0.009)	0.632*** (0.151)	0.293** (0.148)	0.068** (0.032)	0.067*** (0.021)
Trust = 6	0.081*** (0.014)	0.123*** (0.024)	0.253*** (0.096)	0.057** (0.016)	0.882*** (0.110)	0.063*** (0.011)	0.894*** (0.153)	0.371** (0.149)	0.100*** (0.033)	0.095*** (0.022)
Trust = 7	0.094*** (0.013)	0.154*** (0.024)	0.274*** (0.094)	0.087** (0.015)	0.983*** (0.109)	0.085*** (0.010)	1.016*** (0.151)	0.468*** (0.147)	0.142*** (0.032)	0.126*** (0.022)
Trust = 8	0.122*** (0.014)	0.180*** (0.024)	0.368*** (0.094)	0.089** (0.016)	1.050*** (0.111)	0.116*** (0.010)	1.199*** (0.152)	0.617*** (0.148)	0.160*** (0.032)	0.163*** (0.022)
Trust = 9	0.187*** (0.019)	0.175*** (0.026)	0.466*** (0.101)	0.127** (0.018)	1.138*** (0.122)	0.158*** (0.016)	1.377*** (0.166)	0.854*** (0.157)	0.181*** (0.035)	0.212*** (0.026)
Trust = 10	0.151*** (0.019)	0.171*** (0.027)	0.478*** (0.106)	0.117** (0.019)	1.177*** (0.126)	0.148*** (0.017)	1.514*** (0.176)	0.911*** (0.165)	0.185*** (0.037)	0.204*** (0.026)
p(Trust 10 = Trust 7)	0.000	0.299	0.000	0.029	0.008	0.000	0.000	0.000	0.046	0.000
BH q-values	63.758	19.182	12.812	42.905	58.757	63.764	19.088	19.146	18.901	62.270
Adjusted R ²	0.064	0.154	0.254	0.148	0.141	0.054	0.116	0.107	0.056	0.049
IV estimates										
Trust	0.114* (0.059)	0.068 (0.042)	0.470*** (0.173)	0.085* (0.048)	0.668* (0.372)	0.157*** (0.050)	0.402 (0.253)	0.306 (0.208)	0.102** (0.049)	0.086 (0.069)
No. individuals	2855	1834	1311	2306	2190	2854	1832	1828	1807	2811
KP F-stat (1 st st.)	21.466	24.312	19.241	20.806	19.074	21.528	22.305	24.891	23.327	21.430
p(AR-Wald)	0.042	0.104	0.001	0.069	0.068	0.000	0.129	0.133	0.029	0.213
BH q-values	0.104	0.147	0.004	0.114	0.114	0.002	0.147	0.147	0.098	0.213
Observations	11667	3491	2246	7248	8985	11663	3477	3485	3425	11351

(***,**,*) ↔ significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. The OLS estimates also include cation fixed effects. The IV specifications include Swiss region and region of origin (Albania and Ex-Yugoslavia, Central Europe, Eastern Europe, Southern Europe) fixed effects. All specifications include additional socio-economic controls (age, age squared, log household income, sex, employment and labor force participation status, full time work indicator, marital status, household size, number of children born to household, and years of education). "Charity member" denotes reported membership in a charitable organization - 1 (passive member, i.e. no active participation in organization events, meetings etc.) and 0 otherwise. "Donated" is a dummy equal to 1 if respondent reports having made donations (cash or in-kind) in the past year. "ln(Donation)" denotes the log of any monetary donations. "Voluntary work" = 1 if respondent reports having performed voluntary work (and 0 otherwise). "Voting frequency" denotes the reported frequency of participating in federal votes - 0 (never) to 10 (always). "Envir. org. member" = 1 if respondent reports being a passive member of an environmental organization, and 2 for being an active member, and 0 otherwise. "Buy eco-friendly" denotes the reported frequency of buying organic/eco-friendly products, from 0 (never) to 10 (always). "Buy seasonal fruit/veg." takes values from 0-10 and denotes how frequently the respondent reports buying local/seasonal produce, 0 (never) to 10 (always). "Environment > growth" captures the reported preference for environment (1) or economic growth (-1), with 0 denoting indifference; "More env. spending" is the reported preference for more (1), the same (0) or less (-1) public spending on the environment. "p(Trust 10 = Trust 7)" denotes the p-value of an F-test for equality of coefficients for Trust = 7 and Trust = 10. "KP F-stat" denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering). "p(AR-Wald)" contains the p-values of an Anderson and Rubin (1949) Wald test robust to weak identification, and "BH q-values" refer to Benjamini and Hochberg (1995) q-values adjusted for multiple hypothesis testing and are adjusted versions of the p-values of the F-test for equality of coefficients in the OLS part, and the Anderson-Rubin test p-values for the IV estimates.

Table B.16: Trust and cooperative/pro-social behavior and attitudes in the SHP controlling for additional covariates from Figure B.5.

	Behaviors - Pro-social			Behaviors - Pro-environmental			Attitudes - Pro-environmental			
	Charity member	Donated	ln(Donation)	Voluntary work	Voting frequency	Envir. org. member	Buy eco-friendly	Buy seasonal fruit/veg.	More env. spending	Environment > growth
OLS estimates										
Trust = 1	0.060* (0.036)	-0.021 (0.062)	-0.209 (0.266)	0.013 (0.033)	0.366 (0.280)	0.034 (0.030)	0.291 (0.353)	-0.235 (0.326)	0.130* (0.075)	0.067 (0.054)
Trust = 2	0.046** (0.022)	0.007 (0.041)	0.225 (0.149)	0.017 (0.021)	0.311* (0.184)	0.023 (0.019)	0.395 (0.248)	0.064 (0.218)	0.032 (0.056)	-0.018 (0.037)
Trust = 3	0.036** (0.020)	0.059** (0.034)	0.099 (0.128)	0.044** (0.019)	0.667*** (0.168)	0.039** (0.016)	0.319 (0.218)	-0.072 (0.192)	0.066 (0.046)	0.030 (0.033)
Trust = 4	0.061*** (0.019)	0.064** (0.032)	-0.055 (0.122)	0.056** (0.018)	1.003*** (0.163)	0.022 (0.015)	0.719*** (0.204)	0.186 (0.179)	0.056 (0.045)	0.049 (0.032)
Trust = 5	0.059*** (0.016)	0.100*** (0.028)	0.041 (0.111)	0.071*** (0.016)	0.956*** (0.155)	0.050*** (0.013)	0.683*** (0.162)	0.163 (0.162)	0.094** (0.040)	0.066** (0.029)
Trust = 6	0.091*** (0.018)	0.137*** (0.029)	0.229** (0.114)	0.098** (0.017)	1.248*** (0.160)	0.064*** (0.014)	0.932*** (0.190)	0.297* (0.164)	0.094** (0.041)	0.089*** (0.031)
Trust = 7	0.109*** (0.017)	0.175*** (0.028)	0.270** (0.111)	0.123*** (0.017)	1.375*** (0.158)	0.090*** (0.014)	1.152*** (0.187)	0.387** (0.161)	0.119*** (0.040)	0.121*** (0.030)
Trust = 8	0.121*** (0.018)	0.197*** (0.028)	0.325*** (0.112)	0.125*** (0.017)	1.438*** (0.160)	0.122*** (0.015)	1.311*** (0.204)	0.512*** (0.162)	0.202*** (0.040)	0.164*** (0.030)
Trust = 9	0.195*** (0.023)	0.184*** (0.030)	0.512*** (0.120)	0.165*** (0.020)	1.623*** (0.169)	0.167*** (0.020)	1.485*** (0.193***)	0.681*** (0.173)	0.220*** (0.044)	0.214*** (0.034)
Trust = 10	0.148*** (0.024)	0.177*** (0.032)	0.454*** (0.125)	0.151*** (0.022)	1.578*** (0.176)	0.162*** (0.022)	1.693*** (0.216)	0.761*** (0.180)	0.199*** (0.046)	0.208*** (0.034)
p(Trust 10 = Trust 7)	0.045	0.916	0.007	0.084	0.027	0.000	0.000	0.000	0.278	0.000
BH q-values	0.064	0.916	0.014	0.105	0.046	0.000	0.000	0.000	0.309	0.000
Observations	45,276	14,749	10,032	54,350	42,024	45,285	14,673	14,721	14,524	44,131
Adjusted R ²	0.062	0.145	0.208	0.137	0.139	0.064	0.127	0.122	0.060	0.054
IV estimates										
Trust	0.258*** (0.090)	0.113* (0.062)	0.700** (0.324)	0.125* (0.071)	0.503 (0.472)	0.219*** (0.077)	0.248 (0.362)	0.303 (0.314)	0.139** (0.068)	0.111 (0.093)
No. individuals	1,217	1,084	843	1,174	984	1,217	1,080	1,081	1,072	1,212
KP F-stat (1 st st.)	12.248	12.601	9.643	10.696	11.764	12.383	12.933	13.534	12.529	12.653
p(AR-Wald)	0.000	0.056	0.003	0.057	0.308	0.000	0.506	0.333	0.039	0.234
BH q-values	0.001	0.095	0.011	0.095	0.370	0.001	0.506	0.370	0.095	0.335
Observations	8,140	2,607	1,711	9,272	6,388	8,140	2,592	2,601	2,542	7,901

(**,***) ⇔ significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. The OLS estimates also include cation fixed effects. The IV specifications include Swiss region and region of origin (Albania and Ex-Yugoslavia, Central Europe, Eastern Europe, Southern Europe) fixed effects. All specifications include additional socio-economic controls (age, age squared, log household income, sex, employment and labor force participation status, full time work indicator, marital status, household size, number of children born to household, and years of education). "Charity member" denotes reported membership in a charitable organization - 1 (passive member, i.e. no active participation in organization events, meetings etc.) and 0 otherwise. "Donated" is a dummy equal to 1 if respondent reports having made donations (cash or in-kind) in the past year. "ln(Donation)" denotes the log of any monetary donations. "Voluntary work" = 1 if respondent reports having performed voluntary work (and 0 otherwise). "Voting frequency" denotes the reported frequency of participating in federal votes - 0 (never) to 10 (always). "Envir. org. member" = 1 if respondent reports being a passive member of an environmental organization, and 2 for being an active member, and 0 otherwise. "Buy eco-friendly" denotes the reported frequency of buying organic/eco-friendly products, from 0 (never) to 10 (always). "Buy seasonal fruit/veg." takes values from 0-10 and denotes how frequently the respondent reports buying local/seasonal produce, 0 (never) to 10 (always). "Environment > growth" captures the reported preference for environment (1) or economic growth (-1), with 0 denoting indifference. "More env. spending" is the reported preference for more (1), the same (0) or less (-1) public spending on the environment. "p(Trust 10 = Trust 7)" denotes the p-value of an F-test for equality of coefficients for Trust = 7 and Trust = 10. "KP F-stat" denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering). "p(AR-Wald)" contains the p-values of an Anderson and Rubin (1949) Wald test robust to weak identification, and "BH q-values" refer to Benjamini and Hochberg (1995) q-values adjusted for multiple hypothesis testing and are adjusted versions of the p-values of the F-test for equality of coefficients in the OLS part, and the Anderson-Rubin test p-values for the IV estimates. Note that the additional controls lead to an uneven loss of observations is greatest for the pro-environmental outcomes.

B.5.2 Alternative specification for inherited trust instrument

The instrument specifications used in this section follow the basic layout of the auxiliary regression detailed in equation 3 of Appendix B.2. However, the vector of covariates X_{jt} has been limited to age, and age squared, while our main instrument is estimated including also education, log household income, labor force participation and religion (Christian, Muslim, Atheist or other) as additional controls.

Table B.17: Instrumental variable first stage estimates for trust and cooperative/pro-social behavior in the SHP data using alternative inherited trust estimates

	(1)	(2)	(3)	(4)	(5)
	Charity member	Donated	ln(Donation)	Voluntary work	Voting frequency
Inherited trust	0.329*** (0.076)	0.366*** (0.095)	0.545*** (0.099)	0.328*** (0.072)	0.315*** (0.093)
Age	-0.008 (0.016)	-0.007 (0.020)	-0.009 (0.023)	-0.019 (0.015)	-0.004 (0.019)
Age ²	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000* (0.000)	0.000 (0.000)
Male	-0.125 (0.090)	-0.148 (0.106)	-0.233* (0.122)	-0.203** (0.088)	-0.128 (0.106)
Unemployed	-0.457** (0.181)	-0.349 (0.309)	-0.503 (0.458)	-0.566*** (0.184)	-0.421* (0.225)
Out of labor force	-0.412*** (0.102)	-0.264** (0.124)	-0.293** (0.145)	-0.419*** (0.097)	-0.387*** (0.120)
Full time	-0.352*** (0.097)	-0.252** (0.120)	-0.121 (0.136)	-0.379*** (0.098)	-0.410*** (0.113)
Married	0.051 (0.118)	0.075 (0.145)	0.112 (0.163)	0.083 (0.119)	0.101 (0.143)
No. children	0.111*** (0.042)	0.104* (0.056)	0.123** (0.059)	0.120*** (0.044)	0.134*** (0.047)
Divorced	-0.046 (0.158)	-0.007 (0.187)	-0.049 (0.210)	0.001 (0.156)	-0.163 (0.193)
HH size	-0.120*** (0.041)	-0.137** (0.059)	-0.125* (0.070)	-0.144*** (0.045)	-0.161*** (0.046)
Education (years)	0.120*** (0.013)	0.107*** (0.015)	0.090*** (0.017)	0.120*** (0.013)	0.114*** (0.016)
ln(HH inc.)	0.445*** (0.075)	0.498*** (0.098)	0.314*** (0.111)	0.412*** (0.074)	0.420*** (0.087)
No. individuals	3,343	2,101	1,467	2,941	2,321
KP F-stat (1 st st.)	18.578	14.975	30.086	20.893	11.509
R ²	0.100	0.108	0.086	0.104	0.083
Observations	13,218	3,948	2,480	15,139	9,428
Region FE	Yes	Yes	Yes	Yes	Yes
Reg. orig. FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. "KP F-stat" denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering).

Table B.18: Instrumental variable first stage estimates for trust and cooperative/pro-social behavior in the SHP data using alternative inherited trust estimates II

	(1)	(2)	(3)	(4)	(5)
	Envir. org. member	Buy eco-friendly	Buy seasonal fruit/veg.	More envir. spending	Env. protect.
Inherited trust	0.330*** (0.076)	0.348*** (0.095)	0.370*** (0.095)	0.360*** (0.096)	0.319*** (0.081)
Age	-0.008 (0.016)	-0.002 (0.020)	-0.003 (0.020)	-0.001 (0.020)	-0.000 (0.017)
Age ²	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Male	-0.124 (0.090)	-0.159 (0.106)	-0.145 (0.105)	-0.152 (0.106)	-0.144 (0.094)
Unemployed	-0.457** (0.181)	-0.278 (0.303)	-0.292 (0.302)	-0.346 (0.307)	-0.397** (0.193)
Out of labor force	-0.413*** (0.102)	-0.250** (0.124)	-0.246** (0.124)	-0.252** (0.125)	-0.396*** (0.108)
Full time	-0.351*** (0.097)	-0.270** (0.120)	-0.257** (0.120)	-0.275** (0.120)	-0.338*** (0.102)
Married	0.052 (0.118)	0.084 (0.144)	0.087 (0.144)	0.094 (0.146)	0.041 (0.124)
No. children	0.111*** (0.042)	0.093* (0.056)	0.108* (0.056)	0.107* (0.056)	0.117*** (0.043)
Divorced	-0.046 (0.158)	0.032 (0.185)	-0.006 (0.187)	0.016 (0.190)	-0.076 (0.168)
HH size	-0.120*** (0.041)	-0.138** (0.060)	-0.142** (0.060)	-0.150** (0.060)	-0.128*** (0.043)
Education (years)	0.120*** (0.013)	0.108*** (0.015)	0.107*** (0.015)	0.102*** (0.015)	0.117*** (0.014)
ln(HH inc.)	0.445*** (0.075)	0.493*** (0.098)	0.509*** (0.097)	0.474*** (0.100)	0.452*** (0.079)
No. individuals	3,342	2,097	2,095	2,067	2,981
KP F-stat (1 st st.)	18.693	13.438	15.225	14.081	15.478
R ²	0.100	0.107	0.110	0.104	0.099
Observations	13,216	3,927	3,939	3,849	12,019
Region FE	Yes	Yes	Yes	Yes	Yes
Reg. orig. FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. “KP F-stat” denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering).

Table B.19: Table of instrumental variable estimates for trust and cooperative/pro-social behavior in the SHP data using alternative inherited trust estimates

	(1)	(2)	(3)	(4)	(5)
	Charity member	Donated	ln(Donation)	Voluntary work	Voting frequency
Trust	0.146*** (0.056)	0.083* (0.049)	0.442*** (0.136)	0.097** (0.042)	0.798* (0.412)
Age	0.015*** (0.004)	0.017*** (0.004)	0.018 (0.018)	0.010*** (0.003)	0.058** (0.028)
Age ²	-0.000*** (0.000)	-0.000*** (0.000)	0.000 (0.000)	-0.000*** (0.000)	-0.000 (0.000)
Male	-0.018 (0.023)	-0.050** (0.020)	0.227*** (0.087)	0.069*** (0.020)	0.585*** (0.166)
Unemployed	-0.002 (0.048)	-0.127** (0.061)	-0.168 (0.236)	0.056 (0.042)	0.213 (0.317)
Out of labor force	0.045 (0.037)	-0.053* (0.028)	-0.071 (0.103)	0.014 (0.026)	0.508** (0.249)
Full time	-0.018 (0.031)	-0.010 (0.026)	0.122 (0.094)	-0.035 (0.025)	-0.102 (0.238)
Married	-0.069** (0.029)	-0.011 (0.026)	0.038 (0.114)	0.038 (0.024)	0.284 (0.209)
No. children	0.003 (0.012)	-0.017 (0.010)	-0.063 (0.041)	0.016* (0.010)	-0.135 (0.088)
Divorced	-0.102*** (0.038)	-0.041 (0.033)	0.003 (0.132)	-0.058* (0.030)	-0.815*** (0.310)
HH size	0.006 (0.012)	0.003 (0.013)	-0.022 (0.048)	0.018* (0.010)	0.126 (0.096)
Education (years)	0.003 (0.008)	0.015** (0.006)	0.020 (0.018)	0.002 (0.006)	0.106** (0.053)
ln(HH inc.)	0.017 (0.033)	0.029 (0.031)	0.455*** (0.090)	-0.025 (0.023)	0.108 (0.209)
No. individuals	3,343	2,101	1,467	2,941	2,321
KP F-stat (1 st st.)	18.578	14.975	30.086	20.893	11.509
p(AR-Wald)	0.002	0.056	0.000	0.014	0.042
Observations	13,218	3,948	2,480	15,139	9,428
Region FE	Yes	Yes	Yes	Yes	Yes
Reg. orig. FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. “KP F-stat” denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering). “p(AR-Wald)” contains the p-values of an Anderson and Rubin (1949) Wald test robust to weak identification.

Table B.20: Instrumental variable estimates for trust and cooperative/pro-social behavior in the SHP data using alternative inherited trust estimates - II

	(1)	(2)	(3)	(4)	(5)
	Envir. org. member	Buy eco-friendly	Buy seasonal fruit/veg.	More envir. spending	Env. protect.
Trust	0.156*** (0.045)	0.509** (0.256)	0.363 (0.257)	0.101** (0.050)	0.080 (0.066)
Age	0.003 (0.004)	0.058** (0.023)	0.074*** (0.021)	-0.000 (0.005)	-0.013*** (0.005)
Age ²	-0.000 (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.000 (0.000)	0.000* (0.000)
Male	0.014 (0.022)	-0.321** (0.128)	-0.539*** (0.112)	-0.036 (0.026)	-0.099*** (0.030)
Unemployed	0.035 (0.045)	-0.403 (0.316)	-0.031 (0.356)	-0.019 (0.075)	-0.128* (0.066)
Out of labor force	0.011 (0.031)	-0.061 (0.164)	-0.054 (0.147)	0.041 (0.034)	0.007 (0.041)
Full time	-0.018 (0.029)	-0.166 (0.149)	-0.224* (0.136)	-0.037 (0.032)	-0.044 (0.036)
Married	-0.043 (0.027)	-0.127 (0.171)	0.180 (0.143)	-0.064** (0.032)	0.012 (0.035)
No. children	-0.016 (0.011)	-0.075 (0.064)	0.000 (0.053)	-0.023* (0.013)	0.020 (0.015)
Divorced	-0.036 (0.036)	-0.298 (0.204)	-0.291* (0.174)	-0.040 (0.042)	0.011 (0.046)
HH size	0.020* (0.011)	-0.082 (0.075)	0.006 (0.066)	0.012 (0.016)	0.005 (0.016)
Education (years)	-0.004 (0.006)	0.100*** (0.034)	0.028 (0.033)	0.014** (0.006)	0.008 (0.009)
ln(HH inc.)	-0.056** (0.029)	0.263 (0.170)	-0.287* (0.167)	-0.007 (0.034)	-0.103*** (0.037)
No. individuals	3,342	2,097	2,095	2,067	2,981
KP F-stat (1 st st.)	18.693	13.438	15.225	14.081	15.478
p(AR-Wald)	0.000	0.065	0.108	0.075	0.236
Observations	13,216	3,927	3,939	3,849	12,019
Region FE	Yes	Yes	Yes	Yes	Yes
Reg. orig. FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. "KP F-stat" denotes the Kleibergen-Paap F-statistic of a test of instrument relevance in the first stage (adjusted for clustering). "p(AR-Wald)" contains the p-values of an Anderson and Rubin (1949) Wald test robust to weak identification.

B.5.3 Ordered probit/logit

Table B.21: Ordered probit estimates for trust and life satisfaction in the SHP data

	Coef.	ME on p(y=10) at mean	Avg. ME on p(y=10)
	(1)	(2)	(3)
Trust	0.0585*** (0.0015)	0.0121*** (0.0003)	0.0124*** (0.0003)
Education	0.6433*** (0.1641)	0.1327*** (0.0339)	0.1364*** (0.0348)
Age	-3.8417*** (0.7540)	-0.7924*** (0.1556)	-0.8145*** (0.1599)
Age ²	0.6986*** (0.0644)	0.1441*** (0.0133)	0.1481*** (0.0137)
Male	-0.1007*** (0.0075)	-0.0208*** (0.0016)	-0.0214*** (0.0016)
Married	0.2402*** (0.0101)	0.0496*** (0.0021)	0.0509*** (0.0021)
Divorced	-0.0800*** (0.0132)	-0.0165*** (0.0027)	-0.0170*** (0.0028)
Unemployed	-0.4735*** (0.0253)	-0.0977*** (0.0052)	-0.1004*** (0.0054)
Married	0.5209*** (0.0051)	0.1075*** (0.0012)	0.1104*** (0.0012)
ln(HH inc.)	0.1298*** (0.0038)	0.0268*** (0.0008)	0.0275*** (0.0008)
Out of labor force	0.0445*** (0.0097)	0.0092*** (0.0020)	0.0094*** (0.0020)
Full time	0.0119 (0.0090)	0.0024 (0.0019)	0.0025 (0.0019)
In training	0.0128 (0.0176)	0.0026 (0.0036)	0.0027 (0.0037)
HH size	-0.0320*** (0.0037)	-0.0066*** (0.0008)	-0.0068*** (0.0008)
No. children	0.0164*** (0.0033)	0.0034*** (0.0007)	0.0035*** (0.0007)
Pot. exp.	2.7207*** (0.6568)	0.5612*** (0.1355)	0.5768*** (0.1393)
Pot. exp. ²	0.0366 (0.0364)	0.0076 (0.0075)	0.0078 (0.0077)
Recent death of relative	-0.0069 (0.0076)	-0.0014 (0.0016)	-0.0015 (0.0016)
Threshold 1 (SE)	-0.9384	(0.0412)	
Threshold 2 (SE)	-0.8393	(0.0399)	
Threshold 3 (SE)	-0.6117	(0.0377)	
Threshold 4 (SE)	-0.3295	(0.0362)	
Threshold 5 (SE)	-0.0191	(0.0354)	
Threshold 6 (SE)	0.6151	(0.0349)	
Threshold 7 (SE)	0.9593	(0.0348)	
Threshold 8 (SE)	1.6692	(0.035)	
Threshold 9 (SE)	2.8188	(0.0354)	
Threshold 10 (SE)	3.5192	(0.0356)	
N	109754		
Canton dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Heteroskedasticity robust standard errors in parentheses. Age, age squared, household income, pot. experience, its square and education have been standardized (mean 0 and standard deviation of 1) before estimation. The thresholds refer to the values of the latent variable at which the outcome changes according to the fitted model (10 thresholds separating 11 ordered response categories).

Table B.22: Ordered logit estimates for trust and life satisfaction in the SHP data

	Coef.	ME on p(y=10) at mean	Avg. ME on p(y=10)
	(1)	(2)	(3)
Trust	0.1087*** (0.0027)	0.0116*** (0.0003)	0.0126*** (0.0003)
Education	1.1152*** (0.2742)	0.1185*** (0.0291)	0.1292*** (0.0318)
Age	-6.6627*** (1.2612)	-0.7079*** (0.1340)	-0.7721*** (0.1462)
Age ²	1.2417*** (0.1125)	0.1319*** (0.0120)	0.1439*** (0.0130)
Male	-0.1735*** (0.0131)	-0.0184*** (0.0014)	-0.0201*** (0.0015)
Married	0.4208*** (0.0177)	0.0447*** (0.0019)	0.0488*** (0.0021)
Divorced	-0.1432*** (0.0233)	-0.0152*** (0.0025)	-0.0166*** (0.0027)
Unemployed	-0.8741*** (0.0457)	-0.0929*** (0.0049)	-0.1013*** (0.0053)
Married	0.9338*** (0.0093)	0.0992*** (0.0011)	0.1082*** (0.0012)
ln(HH inc.)	0.2324*** (0.0068)	0.0247*** (0.0007)	0.0269*** (0.0008)
Out of labor force	0.0850*** (0.0169)	0.0090*** (0.0018)	0.0099*** (0.0020)
Full time	0.0242 (0.0156)	0.0026 (0.0017)	0.0028 (0.0018)
In training	0.0241 (0.0302)	0.0026 (0.0032)	0.0028 (0.0035)
HH size	-0.0585*** (0.0064)	-0.0062*** (0.0007)	-0.0068*** (0.0007)
No. children	0.0343*** (0.0059)	0.0036*** (0.0006)	0.0040*** (0.0007)
Pot. exp.	4.6680*** (1.0982)	0.4959*** (0.1167)	0.5409*** (0.1273)
Pot. exp. ²	0.0844 (0.0637)	0.0090 (0.0068)	0.0098 (0.0074)
Recent death of relative	-0.0117 (0.0132)	-0.0012 (0.0014)	-0.0014 (0.0015)
Threshold 1 (SE)	-2.3567	(0.0891)	
Threshold 2 (SE)	-2.091	(0.0832)	
Threshold 3 (SE)	-1.5086	(0.0739)	
Threshold 4 (SE)	-0.8296	(0.0674)	
Threshold 5 (SE)	-0.1252	(0.0638)	
Threshold 6 (SE)	1.2003	(0.0614)	
Threshold 7 (SE)	1.863	(0.0612)	
Threshold 8 (SE)	3.1266	(0.0615)	
Threshold 9 (SE)	5.0405	(0.0626)	
Threshold 10 (SE)	6.2604	(0.0633)	
N	109754		
Canton dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Heteroskedasticity robust standard errors in parentheses. Age, age squared, household income, pot. experience, its square and education have been standardized (mean 0 and standard deviation of 1) before estimation. The thresholds refer to the values of the latent variable at which the outcome changes according to the fitted model (10 thresholds separating 11 ordered response categories).

B.5.4 Sensitivity to sampling weights

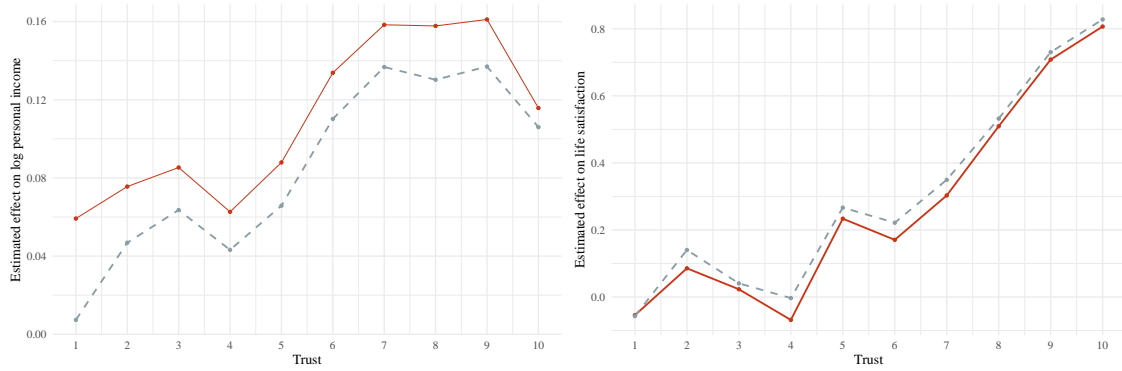


Figure B.6: Trust and income/life satisfaction with (solid) and without (dashed) cross-sectional sampling weights in the SHP data.

The left panel displays the estimated effects of trust on the log of personal income. The right panel shows an analogous graph for the trust-life satisfaction relationship. Regression specifications are the same as in Figure 1b.

	Behaviors - Pro-social			Behaviors - Pro-environmental			Attitudes - Pro-environmental			
	Charity member	Donated	ln(Donation)	Voluntary work	Voting frequency	Envir. org. member	Buy eco-friendly	Buy seasonal fruit/veg.	More env. spending	Environment > growth
OLS estimates										
Trust = 1	0.028 (0.026)	-0.022 (0.062)	-0.361 (0.303)	0.013 (0.025)	0.347 (0.230)	0.019 (0.019)	-0.164 (0.352)	0.452 (0.351)	0.049 (0.077)	-0.002 (0.050)
Trust = 2	0.040** (0.017)	0.031 (0.038)	0.322 (0.212)	0.050** (0.017)	0.351** (0.147)	0.023 (0.014)	0.319 (0.220)	0.314 (0.267)	0.053 (0.053)	-0.012 (0.034)
Trust = 3	0.030* (0.017)	0.046 (0.034)	0.112 (0.132)	0.051** (0.015)	0.605** (0.132)	0.013 (0.012)	0.317 (0.209)	0.291 (0.233)	0.121** (0.048)	-0.009 (0.030)
Trust = 4	0.048*** (0.015)	0.059* (0.031)	0.019 (0.135)	0.081** (0.014)	0.948** (0.124)	0.012 (0.011)	0.573*** (0.188)	0.280 (0.220)	0.112** (0.044)	0.065** (0.028)
Trust = 5	0.054*** (0.013)	0.113*** (0.026)	0.026 (0.118)	0.099** (0.012)	0.955** (0.115)	0.033*** (0.009)	0.581** (0.168)	0.311 (0.199)	0.125*** (0.039)	0.048** (0.024)
Trust = 6	0.099*** (0.015)	0.146*** (0.027)	0.204* (0.119)	0.132*** (0.013)	1.227** (0.119)	0.060*** (0.011)	0.848*** (0.171)	0.601** (0.197)	0.171*** (0.040)	0.080*** (0.026)
Trust = 7	0.107*** (0.014)	0.178*** (0.026)	0.261** (0.117)	0.169** (0.012)	1.429** (0.116)	0.079*** (0.010)	1.041** (0.165)	0.670*** (0.194)	0.216*** (0.039)	0.113*** (0.025)
Trust = 8	0.137*** (0.014)	0.218*** (0.026)	0.381*** (0.117)	0.175*** (0.013)	1.493** (0.119)	0.109*** (0.011)	1.213*** (0.166)	0.777*** (0.195)	0.234*** (0.039)	0.145*** (0.026)
Trust = 9	0.188*** (0.019)	0.190*** (0.030)	0.493*** (0.128)	0.215*** (0.016)	1.618** (0.132)	0.151** (0.015)	1.371*** (0.184)	0.965*** (0.213)	0.264*** (0.043)	0.202*** (0.029)
Trust = 10	0.158*** (0.020)	0.185*** (0.031)	0.476*** (0.126)	0.194*** (0.017)	1.482** (0.140)	0.140*** (0.016)	1.428*** (0.213)	1.160*** (0.220)	0.239*** (0.044)	0.170*** (0.030)
p(Trust 10 = Trust 7)	0.003	0.761	0.001	0.070	0.551	0.000	0.009	0.000	0.355	0.005
BH q-values	0.006	0.761	0.002	0.100	0.612	0.000	0.015	0.000	0.444	0.011
Observations	71,272	21,274	13,909	84,651	61,124	71,282	21,153	21,222	20,892	64,994
Adjusted R ²	0.056	0.152	0.201	0.140	0.133	0.044	0.112	0.108	0.050	0.044

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the individual level in parentheses. All specifications include year and county fixed effects. All specifications include additional socio-economic controls (age, age squared, log household income, sex, employment and labor force participation status, full time work indicator, marital status, household size, number of children born to household, and years of education). "Charity member" denotes reported membership in a charitable organization - 1 (passive member, i.e. no active participation in organization events, meetings etc.) and 2 (active member), and 0 otherwise. "Donated" is a dummy equal to 1 if respondent reports having made donations (cash or in-kind) in the past year. "ln(Donation)" denotes the log of any monetary donations. "Voluntary work" = 1 if respondent reports having performed voluntary work (and 0 otherwise). "Voting frequency" denotes the reported frequency of participating in federal votes - 0 (never) to 10 (always). "Envir. org. member" = 1 if respondent reports being a passive member of an environmental organization, and 2 for being an active member, and 0 otherwise. "Buy eco-friendly" denotes the reported frequency of buying organic/eco-friendly products, from 0 (never) to 10 (always). "Buy seasonal fruit/veg." takes values from 0-10 and denotes how frequently the respondent reports buying local/seasonal produce, 0 (never) to 10 (always). "Environment > growth" captures the reported preference for environment (1) or economic growth (-1), with 0 denoting indifference. "More envir. spending" is the reported preference for more (1), the same (0) or less (-1) public spending on the environment. "p(Trust 10 = Trust 7)" denotes the p-value of an F-test for equality of coefficients for Trust = 7 and Trust = 10. "BH q-values" refer to Benjamini and Hochberg (1995) q-values adjusted for multiple hypothesis testing and are adjusted versions of the p-values of the F-test for equality of coefficients.

Table B.23: Trust and cooperative/pro-social behavior and attitudes in the SHP using cross-sectional sampling weights.

C Additional information and results from the SOM data

C.1 Variable description

In what follows, we describe the SOM variables that we used for our analyses. Incomes are bracketed in the SOM, and bracket means are used to assign the values of the income variables. More details are provided in the variable description below. Table C.2 provides descriptive statistics for all SOM variables. Average trust is around 6.5 and average life satisfaction is about 3.2 on a 1-4 scale, which translates into 7.5 when responses are scaled up to the 0-10 scale used in the SHP and ESS. Mean trust and life satisfaction are very similar to the Swiss data, and above the ESS averages.

Table C.1: Description of SOM variables used

	Description/Encoding	Underlying SOM Vars
<u>Main variables</u>		
Trust	To what extent people can be trusted in general - from 0 (cannot) to 10 (can generally be trusted)	ac10a
Life satisfaction	How satisfied as a whole, 1 (not at all) to 4 (very satisfied)	md10
Log household income	Log of reported household income. Similar to the ESS, household income is reported in categories. Analogously, we impute income values by taking the category mean and estimate the value for the top-category in every year with a censored maximum likelihood procedure based on the assumption that incomes follow a log-normal distribution.	hinc1993, hinc1999, hinc2008, hinc2011
Log personal income	Personal net monthly income using category means as imputed income values. Top incomes are estimated by censored maximum likelihood under the assumption that income follows a log-normal distribution.	pinc2009, pinc2011
<u>Pro-social/environmental</u>		
Env. > growth	Striving towards an environmentally friendly society, even if it means low or no economic growth, 1 (very bad proposal) to 5 (very good proposal)	ba900a

Env. soc. good	Striving towards an environmentally friendly society - 1 (very bad proposal) to 5 (very good proposal)	ba900b
Choose alt. transp.	Do for environmental reasons: chose to walk/bike/use PT instead of driving	ha101b3
Sort waste	How often for environmental reasons: sort household waste - 1 (never) to 5 (always)	ha101c
Fav. carb. tax incr.	Opinion towards proposal to increase CO ₂ tax on petrol - 1 (very bad proposal) to 5 (very good proposal)	ha900m
Limit HH energy	How important is it to limit emission sources: Household energy consumption - 1 (not at all important) to 4 (very important)	ha800e
Eng. aidorg.	Over the last 12 months: donated money or helped an aid organization in any other way 1 (never) to 6 (at least once a week)	ma190a
Donate aidorg.	Over the last 12 months: donated money to an aid organization 1 (never) to 6 (at least once a week)	ma190b
Envir. org. member	Membership/active in: Environmental organization - 1 if member, 0 otherwise	mb99b
Hum. aid. member	Membership/active in: Humanitarian aid organization - 1 if member, 0 otherwise	mb99g
<u>Demographics</u>		
Age	Age in years, based on register data	agereg
Male	1 if male, 0 if female (those who stated unspecific third option are coded as "NA")	sex
Married	1 if married, 0 otherwise	constr. from ind. data (civilstand)
Health	from 0 (very bad/worst possible state) to 10 (very good/best possible state) - note that the wording changed in 2002, leading us to include an interaction term allowing for differential health coefficients before and after the wording changed	mf10, mf30
Educ. medium	Dummy for having degree up to high school (1 if yes, 0 if no) beyond comprehensive school grades 1-9	edu3
Educ. high	Dummy for having university degree or higher (1 if yes 0 if no)	edu3
Foreigner	1 if not a Swedish citizen, 0 otherwise	citizen
Single HH	Living by myself - 1 if yes, 0 otherwise	hhtypela
HH with kids	1 if yes, 0 otherwise	hhtypec
Prayed	Last 12 months: prayed to god - 1 (never) to 7 (several times a week)	bc20
How often: socialize (friends)	Past 12 months: socialized with friends - 1 (never) to 7 (several times a week)	ma10a
How often: gone out	Past 12 months: gone to a restaurant/pub/bar at night - 1 (never) to 7 (several times a week)	ma50c

Anxiety: pension	Anxiety about personal situation: not receiving large enough pension - 1 (of no concern at all) to 4 (of major concern)	gb10b
Anxiety: unemployment	Anxiety about personal situation: becoming unemployed - 1 (of no concern at all) to 4 (of major concern)	gb10c
Anxiety: illness	Anxiety about personal situation: becoming seriously ill - 1 (of no concern at all) to 4 (of major concern)	gb10d
Anxiety: crime	Anxiety about personal situation: becoming a victim of crime - 1 (of no concern at all) to 4 (of major concern)	gb10e
Dual citizen	1 if holding Swedish and other citizenship, 0 otherwise	citizen
Subjective class (current)	Subjective family class at present - 1 (blue collar home), 2 (farmer's home), 3 (white-collar home), 4 (entrepreneurial home)	subclh
Subjective class (childhood)	Subjective family class during childhood - 1 (blue-collar home), 2 (farmer's house), 3 (white-collar home), 4 (entrepreneurial home)	subclg
Unemployed	1 if unemployed, 0 otherwise	unemployed
Out of labor force	1 if out of labor force (includes old age/retirement, disability/early retirement, being a student, homemaker or other), 0 otherwise	lmsit
How often: overtime	Past 12 months: worked overtime - 1 (never) to 7 (several time a week)	ma80a
Occupational group	occupational group - 1 (white collar worker), 2 (white collar worker - supervisor), 3 (white collar worker - leader), 4 (blue-collar worker), 5 (blue collar worker - supervisor), 6 (other - farmer and self-employed blue collar), 9 (self-employed - no employees), 10 (self-employed - 1-9 employees), 11 (self-employed, 10 or more employees)	occgr
State employee	1 if employed by the state, 0 otherwise	sector
Private sector	1 if employed in the private sector, 0 otherwise	sector
Trust government	Trust in government - 1 (very low trust) to 5 (very high trust)	aa10a
Trust police	Trust in police - 1 (very low trust) to 5 (very high trust)	aa10b
Trust parliament	Trust in national parliament - 1 (very low trust) to 5 (very high trust)	aa10e
Trust corporations	Trust in major companies - 1 (very low trust) to 5 (very high trust)	aa10k
Trust parties	Trust in political parties - 1 (very low trust) to 5 (very high trust)	aa10q
Trust courts	Trust in courts - 1 (very low trust) to 5 (very high trust)	aa10m
Stockholm/Goth./Malmö	1 if living in Stockholm/Gothenburg/Malmö	cityrur

Region	Region in Sweden, 1 (Stockholm), 2 (East-mid Sweden), 3 (Smaland province and islands), 4 (South Sweden), 5 (West Sweden), 6 (North-mid Sweden), 7 (Mid-North Sweden), 8 (Upper-North Sweden)	natgeo
<u>Pref./pers. variables</u>		
Risk preference	Following Butler et al. (2016), is response to a question on gambling habit, i.e. how often one has gambled on sports, lotto etc. in last 12 months - 1 (never) to 7 (several times a week)	mc10c
<u>Admin variables</u>		
Year	Year of survey	year
Yearid	Combination of year and idnr - unique person identifier	year, idnr

Table C.2: Summary statistics - SOM

Statistic	N	Mean	St. Dev.	Min	Max
Trust	78,890	6.553	2.219	0	10
Life satisfaction	73,047	3.262	0.617	1	4
Life satisfaction (rescaled)	73,047	7.540	2.056	0	10
Log of personal income	14,971	9.979	0.667	8.517	11.344
Log of household income	78,890	12.825	0.738	10.820	14.353
Age	78,890	50.599	16.954	18	85
Male	78,890	0.492	0.500	0	1
Unemployed	78,890	0.046	0.210	0	1
Out of labor force	78,890	0.355	0.478	0	1
State empl.	73,463	0.113	0.317	0	1
Priv. sector	73,463	0.593	0.491	0	1
Union member	76,219	0.587	0.492	0	1
Married	78,890	0.518	0.500	0	1
Single HH	78,890	0.190	0.392	0	1
HH with kids	78,890	0.346	0.476	0	1
Educ. = medium	78,890	0.424	0.494	0	1
Educ. = high	78,890	0.374	0.484	0	1
Health	69,101	7.390	2.052	0	10
Risk preference	78,890	3.221	2.143	1	7
Village	78,890	0.214	0.410	0	1
Town	78,890	0.472	0.499	0	1
Stockholm/Goth./Malmö	78,890	0.161	0.367	0	1
Foreigner	78,751	0.031	0.174	0	1
Dual citizen	78,751	0.023	0.150	0	1
Hum. aid. memb.	63,379	0.171	0.376	0	1
Eng. aidorg.	15,278	2.611	1.490	1	6
Donate aidorg.	41,080	2.835	1.633	1	6
Envir. org. memb.	73,769	0.061	0.239	0	1
Choose alt. transp.	6,872	2.575	1.203	1	5
Sort waste	13,090	3.908	1.265	1	5
Env. > growth	32,211	3.341	1.069	1	5
Env. soc. good	23,097	4.226	0.815	1	5
Limit HH energy	4,885	2.922	0.761	1	4
Fav. carb. tax. incr.	11,779	2.651	1.237	1	5
Trust government	65,251	3.023	1.052	1	5
Trust police	65,337	3.473	0.926	1	5
Trust parliament	54,638	3.044	0.945	1	5
Trust corporations	54,308	2.882	0.898	1	5
Trust parties	63,607	2.689	0.893	1	5
Trust courts	55,514	3.341	0.974	1	5
Freq. of praying	69,712	2.358	2.147	1	7
Smoker	51,393	0.272	0.445	0	1
How often: overtime	35,782	3.469	2.315	1	7
How often: gone out	67,945	3.591	1.652	1	7
How often: socialize (friends)	78,224	5.720	1.145	1	7
Anxiety: pension	4,665	2.752	0.937	1	4
Anxiety: unemployment	4,465	2.049	1.020	1	4
Anxiety: illness	4,689	2.850	0.906	1	4
Anxiety: crime	4,681	2.534	0.883	1	4

C.2 Empirical approach

In the SOM data, we proceed analogously to the ESS and SHP for our regression estimates. Our estimation equation is

$$y_{it} = \beta_0 + \sum_{k=1}^{10} \beta_k \mathbf{1}(Trust_{it} = k) + \delta X_{it} + \eta_t + \eta_r + \epsilon_{it}, \quad (6)$$

where y_{it} is the outcome of interest for individual i in year t , η_r are region fixed effects, η_t are year fixed effects, and X_{it} is a vector of individual controls. Note that in the SOM, the life satisfaction scale runs from 1 to 4 instead of 0 to 10 as is the case in the other two datasets. Consequently, the magnitude of the point estimates cannot directly be compared to those in the ESS or SHP. Hence, to simplify comparability across datasets, we rescale the life satisfaction variable for the specifications in the robustness section such that its values run in equal intervals from 0 to 10.

C.3 Trust and income/life satisfaction

Table C.3: Regression estimates for trust and income/life satisfaction in the SOM data (no corresponding figure in main text)

	ln(HH inc.)	ln(HH inc.)	ln(Pers. inc.)	Life satisf.	Life satisf.
Trust = 1	0.011 (0.027)		0.023 (0.022)	-0.054** (0.025)	
Trust = 2	0.069*** (0.023)		0.0001 (0.039)	0.021 (0.035)	
Trust = 3	0.093*** (0.013)		0.037 (0.051)	0.062** (0.031)	
Trust = 4	0.103*** (0.014)		0.031 (0.057)	0.081** (0.039)	
Trust = 5	0.101*** (0.016)		0.017 (0.034)	0.113*** (0.036)	
Trust = 6	0.143*** (0.015)		0.055 (0.046)	0.106*** (0.035)	
Trust = 7	0.157*** (0.012)		0.085* (0.051)	0.133*** (0.033)	
Trust = 8	0.168*** (0.014)		0.096** (0.048)	0.185*** (0.033)	
Trust = 9	0.185*** (0.014)		0.107** (0.049)	0.260*** (0.029)	
Trust = 10	0.152*** (0.009)		0.082 (0.056)	0.308*** (0.044)	
Trust		0.016*** (0.001)			0.031*** (0.002)
ln(HH inc.)				0.075*** (0.004)	0.074*** (0.004)
Age	0.021*** (0.001)	0.021*** (0.001)	0.039*** (0.003)	-0.013*** (0.001)	-0.013*** (0.001)
Age ²	-0.0002*** (0.00001)	-0.0002*** (0.00001)	-0.0003*** (0.00003)	0.0001*** (0.00001)	0.0001*** (0.00001)
Male	0.052*** (0.006)	0.053*** (0.005)	0.239*** (0.010)	-0.054*** (0.008)	-0.055*** (0.008)
Unemployed	-0.403*** (0.019)	-0.404*** (0.019)	-0.560*** (0.035)	-0.160*** (0.014)	-0.158*** (0.014)
Health				0.105*** (0.004)	0.105*** (0.003)
Health*I(year>01)				0.016*** (0.003)	0.016*** (0.003)
Married	0.120*** (0.012)	0.120*** (0.012)	0.020 (0.014)	0.093*** (0.003)	0.093*** (0.004)
Educ. = medium	0.085*** (0.007)	0.087*** (0.006)	0.076*** (0.008)	-0.058*** (0.009)	-0.060*** (0.009)
Educ. = high	0.158*** (0.009)	0.160*** (0.009)	0.183*** (0.013)	-0.071*** (0.011)	-0.072*** (0.011)
Single HH	-0.552*** (0.006)	-0.553*** (0.006)	0.031*** (0.009)	-0.098*** (0.007)	-0.099*** (0.007)
HH with kids	0.014*** (0.005)	0.014*** (0.005)	0.051*** (0.010)	-0.028*** (0.004)	-0.027*** (0.004)
Foreigner	-0.136*** (0.018)	-0.136*** (0.018)	-0.056 (0.045)	-0.066*** (0.011)	-0.067*** (0.012)
Dual citizen	-0.173*** (0.019)	-0.174*** (0.019)	-0.092*** (0.028)	-0.049** (0.025)	-0.048* (0.026)
State empl.	0.040*** (0.009)	0.040*** (0.009)	0.047*** (0.010)	0.004 (0.008)	0.004 (0.008)
Private sector	0.090*** (0.009)	0.090*** (0.009)	0.066*** (0.012)	-0.012** (0.006)	-0.013** (0.006)
Union member	0.042*** (0.010)	0.043*** (0.010)	0.087*** (0.010)	-0.009*** (0.003)	-0.010*** (0.003)
White col. - supervisor	0.117*** (0.006)	0.117*** (0.006)	0.190*** (0.010)	0.040*** (0.007)	0.040*** (0.007)
White col. - leader	0.296*** (0.004)	0.296*** (0.004)	0.405*** (0.014)	0.067*** (0.007)	0.068*** (0.007)
Blue col. - worker	-0.057*** (0.008)	-0.058*** (0.008)	-0.178*** (0.011)	0.003 (0.008)	0.004 (0.008)
Blue col. - supervisor	-0.011*** (0.004)	-0.011** (0.004)	-0.077*** (0.012)	0.016 (0.012)	0.015 (0.012)
Blue col. - other	-0.307*** (0.025)	-0.308*** (0.025)	-0.503*** (0.090)	0.052 (0.041)	0.052 (0.042)
Self-employed - alone	-0.191*** (0.009)	-0.191*** (0.009)	-0.253*** (0.036)	0.027*** (0.009)	0.027*** (0.009)
Self-empl. - 1-9 empl.	-0.028 (0.018)	-0.028 (0.018)	-0.026 (0.027)	0.021** (0.011)	0.021** (0.010)
Self-empl. - 10+ empl	0.184*** (0.033)	0.184*** (0.033)	0.307*** (0.040)	0.046** (0.020)	0.046** (0.021)
Subj. class: farmer	-0.023* (0.014)	-0.023 (0.014)	-0.055** (0.025)	0.022 (0.021)	0.022 (0.021)
Subj. class: white col.	0.238*** (0.009)	0.239*** (0.009)	0.083*** (0.009)	0.026*** (0.007)	0.025*** (0.007)
Subj. class: entrepren.	0.181*** (0.015)	0.181*** (0.015)	0.085*** (0.022)	0.045*** (0.010)	0.044*** (0.010)
Childh. class: farmer	-0.016* (0.009)	-0.016* (0.009)	-0.010 (0.007)	-0.009* (0.006)	-0.010 (0.006)
Childh. class: white col.	0.017** (0.007)	0.018*** (0.007)	0.006 (0.010)	-0.004 (0.004)	-0.005 (0.004)
Childh. class: entrepren.	0.007 (0.009)	0.007 (0.009)	0.016 (0.018)	0.007 (0.009)	0.007 (0.009)
Risk preference	0.006*** (0.001)	0.006*** (0.001)	0.006*** (0.001)	-0.0004 (0.001)	-0.001 (0.001)
Village	0.006 (0.009)	0.006 (0.009)	0.032** (0.013)	-0.024* (0.012)	-0.024** (0.012)
Town	0.008 (0.008)	0.008 (0.008)	0.038** (0.016)	-0.047*** (0.009)	-0.048*** (0.008)
Stockh./Goth./Malmö	0.010* (0.005)	0.010* (0.005)	0.065*** (0.017)	-0.054*** (0.010)	-0.054*** (0.010)
Region FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
p(Trust 10 = Trust 7)	0.65		0.85	0.00	
p(Trust 10 = Trust 8)	0.11		0.40	0.00	
p(Trust 10 = Trust 9)	0.00		0.00	0.01	
Observations	64,050	64,050	12,411	53,975	53,975
Adjusted R ²	0.536	0.536	0.586	0.255	0.253

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the region level in parentheses. Life satisfaction takes values ranging from 1 to 4. “p(Trust 10 = Trust 7)” denotes the p-value of an F-test for equality of coefficients for Trust = 10 and Trust = 7. “p(Trust 10 = Trust 8)” and “p(Trust 10 = Trust 9)” are defined analogously.

C.4 Trust and cooperative outcomes

In this section, we analyze the main mechanisms behind our relationship of interest. While not to the same extent of the SHP, the SOM data also provide a relatively large range of cooperative attitudes and behaviors. We first consider three pro-social outcomes concerning membership in a humanitarian/aid organization, the frequency of engagement in the activities of such an organization as well as the frequency of donations to aid organizations, which complements the amounts provided in the SHP as measure of the intensive margin of donations. Table C.4 provides the corresponding estimates. Very much in line with our previous results from the ESS and the SHP, we find a positive relationship between trust and the abovementioned outcomes. Then, we turn to pro-environmental attitudes and behaviors. A defining property of the SOM is the availability of a broad set of outcomes related to the environment. We consider three types of pro-environmental behavior comprising membership in an environmental organization as well as the reported frequency of using alternative transport and sorting waste for environmental reasons. We also consider a set of pro-environmental attitudes. These include the degree of agreement with the statements that one should strive for an environmentally friendly society even at the cost of economic growth, and that one should strive for an environmentally friendly society; the attached importance of reducing emissions caused by one's household energy consumption; and support for increasing taxes on carbon-intensive goods, with no specified use of revenues (noting that Sweden already has one of the highest carbon tax rates in the world, see World Bank 2020).

Tables C.4 and C.5 provide our estimates. In line with previous results, they provide consistent evidence that high-trust individuals (i.e. those at trust levels of 9 and 10) engage in more pro-social/pro-environmental activities and have more

environmentally friendly attitudes than their average trust counterparts (i.e. those with trust levels of 6 or 7).

Table C.4: Regression estimates for pro-social and pro-environmental outcomes and attitudes in the SOM data I

	Hum. aid. memb.	Eng. aidorg.	Donate aidorg.	Envir. org. member	Choose alt. transp.
Trust = 1	0.017 (0.020)	0.086 (0.185)	0.322*** (0.079)	0.003 (0.010)	0.110 (0.171)
Trust = 2	0.007 (0.019)	-0.022 (0.146)	0.207** (0.085)	-0.009 (0.012)	0.133 (0.126)
Trust = 3	0.022 (0.013)	0.242 (0.160)	0.290*** (0.097)	0.001 (0.014)	0.214** (0.091)
Trust = 4	0.021** (0.011)	0.120 (0.164)	0.367*** (0.115)	0.0001 (0.012)	0.174 (0.131)
Trust = 5	0.039*** (0.014)	0.227 (0.170)	0.387*** (0.089)	-0.001 (0.009)	0.201** (0.083)
Trust = 6	0.040*** (0.011)	0.265 (0.174)	0.500*** (0.097)	-0.002 (0.009)	0.286*** (0.104)
Trust = 7	0.059*** (0.014)	0.360** (0.158)	0.596*** (0.069)	0.005 (0.012)	0.310*** (0.084)
Trust = 8	0.080*** (0.011)	0.407** (0.173)	0.744*** (0.065)	0.013 (0.011)	0.264*** (0.081)
Trust = 9	0.103*** (0.014)	0.505*** (0.143)	0.847*** (0.068)	0.035*** (0.011)	0.457*** (0.109)
Trust = 10	0.101*** (0.008)	0.486*** (0.185)	0.747*** (0.074)	0.025** (0.012)	0.319** (0.113)
ln(HH inc.)	0.018*** (0.003)	0.082** (0.037)	0.104*** (0.024)	-0.005*** (0.001)	-0.093*** (0.029)
Age	0.001 (0.001)	0.001 (0.006)	-0.013*** (0.003)	0.002*** (0.003)	0.002 (0.002)
Age ²	0.00000 (0.00001)	0.0001** (0.0001)	0.0003*** (0.00004)	-0.00002*** (0.00000)	-0.00002 (0.0001)
Male	-0.071*** (0.003)	-0.319*** (0.023)	-0.450*** (0.014)	-0.006* (0.003)	-0.196*** (0.039)
Unemployed	0.006 (0.011)	-0.038 (0.074)	-0.101*** (0.015)	-0.002 (0.007)	0.070 (0.057)
Married	0.016*** (0.004)	0.200*** (0.035)	0.231*** (0.019)	-0.003 (0.002)	0.047* (0.026)
Educ. = medium	0.036*** (0.004)	0.193*** (0.054)	0.157*** (0.025)	0.010*** (0.001)	0.063 (0.051)
Educ. = high	0.103*** (0.003)	0.412*** (0.060)	0.365*** (0.029)	0.045*** (0.002)	0.200*** (0.071)
Single HH	0.027*** (0.006)	0.049* (0.029)	0.138*** (0.038)	0.001 (0.003)	0.204*** (0.060)
HH with kids	0.004 (0.006)	0.043 (0.031)	0.032 (0.024)	0.006*** (0.002)	-0.035 (0.046)
Foreigner	-0.023 (0.015)	0.020 (0.071)	-0.105*** (0.032)	-0.021*** (0.004)	-0.073 (0.131)
Dual citizen	0.005 (0.015)	0.043 (0.361)	0.038 (0.066)	-0.022** (0.010)	-0.095 (0.086)
State empl.	-0.011*** (0.004)	-0.037 (0.036)	-0.072*** (0.026)	0.006* (0.003)	0.001 (0.074)
Private sector	-0.019*** (0.003)	-0.019 (0.015)	0.005 (0.028)	-0.005*** (0.002)	-0.194*** (0.047)
Union member	0.023*** (0.006)	0.042 (0.027)	0.103*** (0.019)	0.013*** (0.003)	-0.048 (0.031)
White col. - supervisor	0.012*** (0.004)	0.123*** (0.029)	0.059 (0.038)	-0.003 (0.002)	-0.097 (0.061)
White col. - leader	0.024*** (0.009)	0.204*** (0.068)	0.151** (0.076)	-0.008 (0.008)	-0.249*** (0.094)
Blue col. - worker	-0.009*** (0.002)	-0.087 (0.054)	-0.117*** (0.033)	-0.006** (0.003)	-0.004 (0.037)
Blue col. - supervisor	0.021*** (0.006)	0.001 (0.063)	0.040 (0.031)	-0.001 (0.003)	0.059 (0.082)
Blue col. - other	0.040* (0.024)	0.104 (0.137)	-0.011 (0.066)	-0.016 (0.012)	-0.062 (0.199)
Self-employed - alone	0.027*** (0.006)	0.006 (0.077)	-0.030 (0.042)	0.013** (0.006)	-0.093 (0.092)
Self-empl. - 1-9 empl.	0.022 (0.014)	0.211** (0.105)	0.175*** (0.058)	-0.002 (0.006)	-0.094 (0.080)
Self-empl. - 10+ empl.	0.019 (0.012)	0.261*** (0.101)	0.341*** (0.093)	-0.007 (0.006)	-0.202 (0.158)
Subj. class: farmer	0.030*** (0.010)	0.043 (0.109)	0.184*** (0.061)	0.010 (0.006)	-0.123 (0.096)
Subj. class: white col.	0.028*** (0.003)	0.145*** (0.039)	0.118*** (0.038)	0.011*** (0.004)	-0.062 (0.039)
Subj. class: entrepren.	0.041*** (0.009)	0.238*** (0.058)	0.162*** (0.065)	0.015*** (0.005)	-0.138*** (0.062)
Childh. class: farmer	0.014** (0.007)	0.134*** (0.034)	0.134*** (0.031)	0.006** (0.002)	0.099** (0.049)
Childh. class: white col.	0.032*** (0.003)	0.041** (0.016)	0.123*** (0.017)	0.015*** (0.002)	0.024 (0.031)
Childh. class: entrepren.	0.025*** (0.005)	0.063 (0.049)	0.146*** (0.026)	0.001 (0.001)	-0.025 (0.035)
Risk preference	-0.002** (0.001)	0.003 (0.010)	0.022*** (0.003)	-0.004*** (0.0004)	-0.028*** (0.007)
Village	0.007 (0.005)	0.017 (0.039)	0.016 (0.027)	-0.013*** (0.002)	0.464*** (0.073)
Town	0.004 (0.004)	-0.062* (0.035)	0.051* (0.027)	-0.013*** (0.003)	0.725*** (0.044)
Stockh./Goth./Malmö	0.028*** (0.004)	0.063 (0.054)	0.085** (0.037)	-0.006* (0.003)	1.052*** (0.028)
Region FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
p(Trust 10 = Trust 7)	0.000	0.008	0.000	0.000	0.895
BH q-values	0.000	0.011	0.000	0.000	0.895
p(Trust 9 = Trust 6)	0.000	0.004	0.000	0.000	0.068
BH q-values	0.000	0.004	0.000	0.000	0.068
Observations	52,437	11,697	33,896	60,333	5,765
Adjusted R ²	0.062	0.095	0.107	0.024	0.116

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the region level in parentheses. "Hum. aid. memb." denotes membership in a humanitarian/aid organization - 1 if member, 0 otherwise. "Eng. aidorg." is the reported frequency of donating or helping an aid organization in the last 12 months - 1 (never) to 6 (at least once a week). "Donate aidorg." is coded analogously, but only focuses on monetary donations to an aid organization. "Envir. org. member" denotes membership in an environmental organization - 1 if member, 0 otherwise. "Use alt. transp" is the reported frequency of walking/biking using public transport instead of driving for env. reasons - 1 (never) to 5 (always). "p(Trust 10 = Trust 7)" denotes the p-value of an F-test for equality of coefficients for Trust = 7 and Trust = 10, "p(Trust 9 = Trust 6)" is defined analogously. "BH q-values" refer to Benjamini and Hochberg (1995) q-values adjusted for multiple hypothesis testing and are adjusted versions of the p-values of the F-test for equality of coefficients in the respective lines above the q-values.

Table C.5: Regression estimates for pro-social/-environmental outcomes/attitudes in the SOM data II

	Sort waste	Env. > growth	Env. soc. good	Limit HH energy	Fav. carb. tax. incr.
Trust = 1	-0.044 (0.137)	0.016 (0.089)	0.015 (0.079)	0.076 (0.149)	0.206* (0.109)
Trust = 2	0.079 (0.117)	0.075 (0.082)	0.078* (0.047)	0.057 (0.104)	0.218 (0.181)
Trust = 3	0.211 (0.159)	0.075 (0.071)	0.092* (0.047)	0.096 (0.099)	0.219 (0.138)
Trust = 4	0.232 (0.160)	0.039 (0.080)	0.146*** (0.023)	0.055 (0.096)	0.372*** (0.130)
Trust = 5	0.229** (0.102)	0.093 (0.059)	0.180*** (0.029)	0.200*** (0.064)	0.324*** (0.123)
Trust = 6	0.236 (0.156)	0.115** (0.057)	0.182*** (0.018)	0.124* (0.075)	0.379*** (0.109)
Trust = 7	0.337** (0.149)	0.125* (0.069)	0.249*** (0.025)	0.196** (0.079)	0.499*** (0.123)
Trust = 8	0.371*** (0.139)	0.198*** (0.062)	0.305*** (0.020)	0.255*** (0.074)	0.583*** (0.121)
Trust = 9	0.412** (0.163)	0.231*** (0.067)	0.418*** (0.024)	0.289*** (0.072)	0.653*** (0.114)
Trust = 10	0.438*** (0.111)	0.211*** (0.081)	0.461*** (0.038)	0.335*** (0.090)	0.714*** (0.135)
ln(HH inc.)	-0.008 (0.018)	-0.153*** (0.019)	-0.057*** (0.013)	-0.073** (0.029)	-0.108*** (0.015)
Age	0.022** (0.009)	-0.005 (0.004)	-0.004* (0.003)	0.018** (0.008)	-0.008 (0.006)
Age ²	-0.0001 (0.0001)	0.0001 (0.00005)	0.00001 (0.00003)	-0.0002** (0.0001)	0.00005 (0.0001)
Male	-0.170*** (0.026)	-0.187*** (0.010)	-0.167*** (0.013)	-0.183*** (0.017)	-0.206*** (0.023)
Unemployed	-0.041 (0.068)	0.055* (0.030)	-0.003 (0.037)	-0.0003 (0.048)	0.065 (0.115)
Married	0.070** (0.028)	-0.023 (0.018)	-0.003 (0.014)	-0.008 (0.016)	-0.001 (0.018)
Educ. = medium	0.027 (0.055)	-0.031*** (0.011)	-0.001 (0.016)	-0.028 (0.032)	-0.028 (0.049)
Educ. = high	0.090 (0.067)	0.036*** (0.014)	0.158*** (0.023)	0.049 (0.039)	0.337*** (0.050)
Single HH	-0.130*** (0.036)	-0.074*** (0.022)	-0.016 (0.017)	-0.020 (0.046)	0.027 (0.031)
HH with kids	0.081*** (0.021)	0.050*** (0.016)	0.014* (0.008)	-0.004 (0.038)	-0.007 (0.024)
Foreigner	0.164** (0.070)	0.096*** (0.023)	-0.003 (0.025)	-0.083 (0.077)	-0.089 (0.102)
Dual citizen	0.185 (0.122)	0.070*** (0.023)	0.038 (0.031)	0.122 (0.077)	0.118 (0.119)
State empl.	-0.016 (0.032)	-0.064*** (0.019)	-0.057*** (0.015)	-0.049 (0.042)	-0.069 (0.064)
Private sector	-0.042 (0.029)	-0.123*** (0.017)	-0.079*** (0.013)	-0.073*** (0.027)	-0.156*** (0.032)
Union member	0.055 (0.034)	0.056*** (0.016)	0.019 (0.012)	-0.028 (0.033)	0.054** (0.023)
White col. - supervisor	0.029 (0.021)	-0.035** (0.017)	-0.064*** (0.020)	0.012 (0.029)	-0.093 (0.058)
White col. - leader	-0.003 (0.047)	-0.167*** (0.028)	-0.039 (0.031)	-0.080 (0.053)	-0.129*** (0.044)
Blue col. - worker	-0.054** (0.026)	-0.020 (0.019)	-0.019 (0.014)	-0.012 (0.024)	-0.012 (0.056)
Blue col. - supervisor	0.0002 (0.056)	-0.015 (0.021)	-0.047 (0.033)	0.030 (0.067)	-0.044 (0.045)
Blue col. - other	-0.317* (0.183)	0.152 (0.103)	-0.064 (0.136)	-0.0001 (0.124)	0.134 (0.240)
Self-employed - alone	-0.012 (0.076)	0.121*** (0.028)	0.040 (0.031)	0.043 (0.102)	0.017 (0.078)
Self-empl. - 1-9 empl.	0.022 (0.059)	0.040 (0.042)	-0.097* (0.055)	-0.047 (0.094)	0.135*** (0.049)
Self-empl. - 10+ empl.	-0.079 (0.161)	-0.062 (0.070)	-0.106*** (0.036)	-0.145 (0.098)	-0.135 (0.087)
Subj. class: farmer	-0.071 (0.089)	-0.150*** (0.037)	-0.084 (0.055)	-0.049 (0.088)	-0.047 (0.118)
Subj. class: white col.	0.046 (0.041)	-0.015 (0.017)	0.003 (0.017)	-0.014 (0.022)	0.103*** (0.033)
Subj. class: entrepren.	-0.056* (0.033)	-0.136*** (0.034)	-0.019 (0.025)	-0.023 (0.059)	-0.027 (0.041)
Childh. class: farmer	0.095*** (0.033)	0.038** (0.016)	-0.035 (0.026)	0.048 (0.041)	0.020 (0.026)
Childh. class: white col.	0.006 (0.021)	-0.044 (0.030)	0.010 (0.007)	0.026 (0.027)	0.097*** (0.030)
Childh. class: entrepren.	0.011 (0.037)	-0.060*** (0.019)	-0.038*** (0.013)	0.037 (0.051)	-0.098 (0.065)
Risk preference	-0.029*** (0.010)	-0.016*** (0.002)	-0.019*** (0.004)	-0.014** (0.006)	-0.036*** (0.010)
Village	0.048* (0.027)	-0.001 (0.014)	0.009 (0.021)	0.058* (0.033)	0.185*** (0.043)
Town	0.090*** (0.024)	0.019* (0.011)	0.072*** (0.019)	0.070** (0.031)	0.333*** (0.048)
Stockh./Goth./Malmö	-0.127*** (0.022)	0.065 (0.043)	0.129*** (0.012)	0.088** (0.045)	0.570*** (0.052)
Region FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
p(Trust 10 = Trust 7)	0.139	0.000	0.000	0.011	0.002
BH q-values	0.154	0.000	0.000	0.014	0.003
p(Trust 9 = Trust 6)	0.000	0.000	0.000	0.003	0.000
BH q-values	0.000	0.000	0.000	0.003	0.000
Observations	10,800	25,551	19,443	4,039	9,878
Adjusted R ²	0.087	0.048	0.090	0.047	0.136

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Standard errors clustered at the region level in parentheses. "Sort waste" is the reported frequency of sorting waste for environmental reasons - 1 (never) to 5 (always). "Env. > growth" indicates the degree of agreement that one should strive to an environmentally friendly society even at the cost of economic growth - 1 (very bad proposal) to 5 (very good proposal). "Env. soc. good" asks the same, but without the econ. growth qualification. "Limit HH energy" is the reported importance attached to reducing emissions from household energy consumption - 1 (not at all important) to 4 (very important). "Fav. carb. tax. incr." is the opinion towards proposal to increase the CO₂ tax on petrol - 1 (very bad proposal) to 5 (very good proposal). "p(Trust 10 = Trust 7)" denotes the p-value of an F-test for equality of coefficients for Trust = 7 and Trust = 10, "p(Trust 9 = Trust 6)" is defined analogously. "BH q-values" refer to Benjamini and Hochberg (1995) q-values adjusted for multiple hypothesis testing and are adjusted versions of the p-values of the F-test for equality of coefficients in the respective lines above the q-values.

C.5 Robustness tests

In this section, we present the battery of robustness tests applied to the SOM data. The corresponding estimates are presented in Figures C.1 and C.2 and Tables C.6 and C.7.

As per standard procedure, we start by presenting the analyses testing the robustness of our findings on the trust-income and trust-well-being relationships to the inclusion of additional controls related to other forms of trust, political and religious attitudes (Figure C.1) as well as social activity and negative affect (Figure C.2). Once more, our results are robust to these sensitivity checks.

As for the ESS and SHP data, our findings are also robust to the use of non-linear models, as shown by Tables C.6 and C.7, which provide ordered probit and logit estimates for trust and life satisfaction. That is, also in the case of the SHP data, the observed positive relationship does not depend on the imposed interval scale of the life satisfaction variable in our baseline regressions. Based on the SOM data, and very much in line with the ESS and SHP data, increasing trust by 1 point is projected to increase the probability of being in the highest life satisfaction category by about 2.2% on average. This estimate is based on a rescaled variable, from 4 to 10 for consistency with ESS and SHP, but rescaling has no impact on the estimates in these ordered specifications. Hence, we conclude that, if anything, the effects are larger in the SOM data, which is to be expected given that the SOM only has 4 answer categories for life satisfaction, compared to the 11 provided in the other datasets.

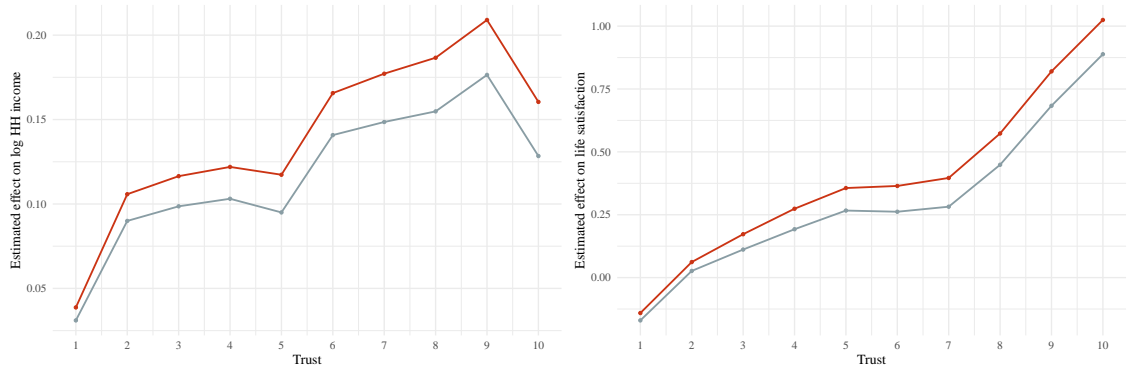


Figure C.1: Trust and income/life satisfaction with (solid) and without (dashed) additional contextual controls in the SOM.

The additional controls include trust in (i) the government, (ii) the police, (iii) parliament, (iv) corporation, (v) political parties, and (vi) courts, as well as the frequency of prayer. The baseline regression specifications is the same as in Table C.3.

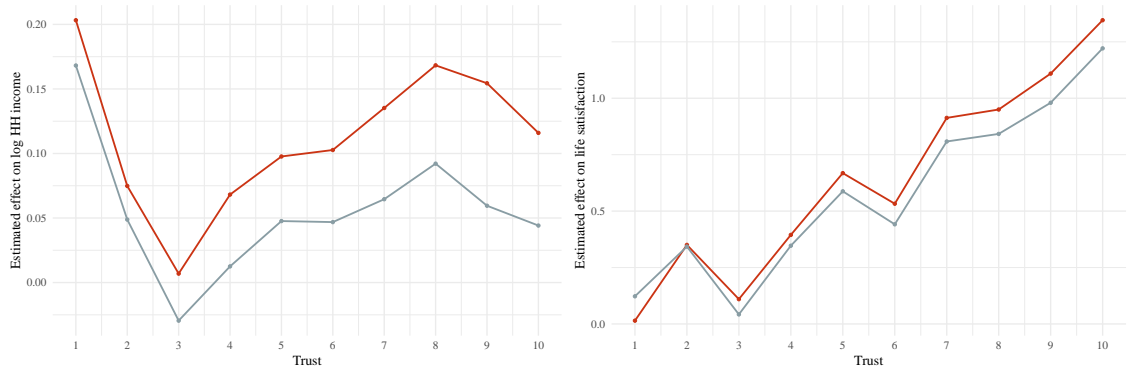


Figure C.2: Trust and income/life satisfaction with (solid) and without (dashed) additional controls for negative affect and social engagement in the SOM.

The additional controls include the degree of anxiety related to (i) pension security, (ii) unemployment, (iii) illness, (iv) crime, how often one performed overtime work, whether the individual is a smoker, and how often the respondent (i) went out and/or (ii) socialized with friends. The baseline regression specifications is the same as in Table C.3.

Table C.6: Ordered probit estimates for trust and life satisfaction in the SOM data

	Coef. (1)	ME on p(y=10) at mean (2)	Avg. ME on p(y=10) (3)
Trust	0.0704*** (0.0026)	0.0250*** (0.0009)	0.0221*** (0.0008)
ln(HH inc.)	0.1260*** (0.0084)	0.0448*** (0.0030)	0.0396*** (0.0026)
Age	-0.5006*** (0.0421)	-0.1781*** (0.0150)	-0.1574*** (0.0132)
Age ²	0.5068*** (0.0445)	0.1803*** (0.0158)	0.1593*** (0.0140)
Male	-0.1240*** (0.0115)	-0.0441*** (0.0041)	-0.0390*** (0.0036)
Unemployed	-0.3280*** (0.0270)	-0.1167*** (0.0096)	-0.1031*** (0.0085)
Married	0.2179*** (0.0131)	0.0775*** (0.0047)	0.0685*** (0.0041)
Educ. = medium	-0.1405*** (0.0163)	-0.0500*** (0.0058)	-0.0442*** (0.0051)
Educ. = high	-0.1675*** (0.0196)	-0.0596*** (0.0070)	-0.0526*** (0.0061)
Single HH	-0.2162*** (0.0174)	-0.0769*** (0.0062)	-0.0680*** (0.0055)
HH with kids	-0.0659*** (0.0131)	-0.0234*** (0.0047)	-0.0207*** (0.0041)
Foreigner	-0.1607*** (0.0318)	-0.0572*** (0.0113)	-0.0505*** (0.0100)
Dual citizen	-0.1136*** (0.0353)	-0.0404*** (0.0126)	-0.0357*** (0.0111)
State empl.	0.0084 (0.0189)	0.0030 (0.0067)	0.0026 (0.0060)
Private sector	-0.0299** (0.0134)	-0.0106** (0.0048)	-0.0094** (0.0042)
Union member	-0.0279** (0.0125)	-0.0099** (0.0045)	-0.0088** (0.0039)
White col. - supervisor	0.0954*** (0.0177)	0.0339*** (0.0063)	0.0300*** (0.0056)
White col. - leader	0.1658*** (0.0279)	0.0590*** (0.0099)	0.0521*** (0.0087)
Blue col. - worker	0.0091 (0.0169)	0.0032 (0.0060)	0.0029 (0.0053)
Blue col. - supervisor	0.0323 (0.0252)	0.0115 (0.0090)	0.0102 (0.0079)
Blue col. - other	0.1033 (0.0737)	0.0368 (0.0262)	0.0325 (0.0232)
Self-employed - alone	0.0560* (0.0317)	0.0199* (0.0113)	0.0176* (0.0100)
Self-empl. - 1-9 empl.	0.0468 (0.0352)	0.0167 (0.0125)	0.0147 (0.0111)
Self-empl. - 10+ empl.	0.1126** (0.0527)	0.0401** (0.0187)	0.0354** (0.0166)
Subj. class: farmer	0.0574 (0.0419)	0.0204 (0.0149)	0.0181 (0.0132)
Subj. class: white col.	0.0574*** (0.0166)	0.0204*** (0.0059)	0.0180*** (0.0052)
Subj. class: entrepren.	0.1070*** (0.0264)	0.0381*** (0.0094)	0.0336*** (0.0083)
Childh. class: farmer	-0.0215 (0.0184)	-0.0076 (0.0065)	-0.0068 (0.0058)
Childh. class: white col.	-0.0081 (0.0141)	-0.0029 (0.0050)	-0.0025 (0.0044)
Childh. class: entrepren.	0.0179 (0.0209)	0.0064 (0.0074)	0.0056 (0.0066)
Risk preference	-0.0030 (0.0026)	-0.0011 (0.0009)	-0.0010 (0.0008)
Village	-0.0573*** (0.0186)	-0.0204*** (0.0066)	-0.0180*** (0.0058)
Town	-0.1090*** (0.0169)	-0.0388*** (0.0060)	-0.0343*** (0.0053)
Stockh./Goth./Malmö	-0.1227*** (0.0218)	-0.0437*** (0.0077)	-0.0386*** (0.0068)
Threshold 1 (SE)	-2.5619	(0.0554)	
Threshold 2 (SE)	-1.341	(0.0518)	
Threshold 3 (SE)	0.9526	(0.0515)	
N	53986		
Region dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Heteroskedasticity robust standard errors in parentheses. Age, age squared, and log household income have been standardized (mean 0 and standard deviation of 1) before estimation. The thresholds refer to the values of the latent variable at which the outcome changes according to the fitted model (3 thresholds separating 4 ordered response categories).

Table C.7: Ordered logit estimates for trust and life satisfaction in the SOM data

	Coef.	ME on p(y=10) at mean	Avg. ME on p(y=10)
	(1)	(2)	(3)
Trust	0.1228*** (0.0046)	0.0257*** (0.0010)	0.0226*** (0.0008)
ln(HH inc.)	0.2215*** (0.0149)	0.0464*** (0.0031)	0.0407*** (0.0027)
Age	-0.9615*** (0.0746)	-0.2015*** (0.0156)	-0.1769*** (0.0137)
Age ²	0.9740*** (0.0788)	0.2042*** (0.0165)	0.1792*** (0.0145)
Male	-0.2143*** (0.0201)	-0.0449*** (0.0042)	-0.0394*** (0.0037)
Unemployed	-0.6021*** (0.0498)	-0.1262*** (0.0104)	-0.1108*** (0.0092)
Married	0.3693*** (0.0228)	0.0774*** (0.0048)	0.0679*** (0.0042)
Educ. = medium	-0.2448*** (0.0287)	-0.0513*** (0.0060)	-0.0450*** (0.0053)
Educ. = high	-0.2802*** (0.0343)	-0.0587*** (0.0072)	-0.0515*** (0.0063)
Single HH	-0.3971*** (0.0310)	-0.0832*** (0.0065)	-0.0730*** (0.0057)
HH with kids	-0.1154*** (0.0228)	-0.0242*** (0.0048)	-0.0212*** (0.0042)
Foreigner	-0.2653*** (0.0571)	-0.0556*** (0.0120)	-0.0488*** (0.0105)
Dual citizen	-0.2020*** (0.0634)	-0.0423*** (0.0133)	-0.0372*** (0.0117)
State empl.	0.0227 (0.0330)	0.0048 (0.0069)	0.0042 (0.0061)
Private sector	-0.0484** (0.0234)	-0.0101** (0.0049)	-0.0089** (0.0043)
Union member	-0.0505** (0.0219)	-0.0106** (0.0046)	-0.0093** (0.0040)
White col. - supervisor	0.1539*** (0.0305)	0.0323*** (0.0064)	0.0283*** (0.0056)
White col. - leader	0.2696*** (0.0476)	0.0565*** (0.0100)	0.0496*** (0.0087)
Blue col. - worker	0.0092 (0.0296)	0.0019 (0.0062)	0.0017 (0.0055)
Blue col. - supervisor	0.0514 (0.0440)	0.0108 (0.0092)	0.0095 (0.0081)
Blue col. - other	0.1986 (0.1293)	0.0416 (0.0271)	0.0365 (0.0238)
Self-employed - alone	0.1037* (0.0552)	0.0217* (0.0116)	0.0191* (0.0102)
Self-empl. - 1-9 empl.	0.0780 (0.0611)	0.0163 (0.0128)	0.0143 (0.0112)
Self-empl. - 10+ empl.	0.2161** (0.0914)	0.0453** (0.0192)	0.0398** (0.0168)
Subj. class: farmer	0.1005 (0.0726)	0.0211 (0.0152)	0.0185 (0.0133)
Subj. class: white col.	0.0959*** (0.0291)	0.0201*** (0.0061)	0.0176*** (0.0054)
Subj. class: entrepren.	0.1830*** (0.0459)	0.0384*** (0.0096)	0.0337*** (0.0084)
Childh. class: farmer	-0.0484 (0.0321)	-0.0101 (0.0067)	-0.0089 (0.0059)
Childh. class: white col.	-0.0157 (0.0245)	-0.0033 (0.0051)	-0.0029 (0.0045)
Childh. class: entrepren.	0.0244 (0.0361)	0.0051 (0.0076)	0.0045 (0.0066)
Risk preference	-0.0060 (0.0046)	-0.0013 (0.0010)	-0.0011 (0.0008)
Village	-0.1015*** (0.0323)	-0.0213*** (0.0068)	-0.0187*** (0.0059)
Town	-0.1937*** (0.0295)	-0.0406*** (0.0062)	-0.0356*** (0.0054)
Stockh./Goth./Malmö	-0.2158*** (0.0380)	-0.0452*** (0.0080)	-0.0397*** (0.0070)
Threshold 1 (SE)	-4.9059	(0.1028)	
Threshold 2 (SE)	-2.4285	(0.0921)	
Threshold 3 (SE)	1.6614	(0.0911)	
N	53986		
Region dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes

(***, **, *) \Leftrightarrow significant at the 1%, 5%, and 10%-level, respectively. Heteroskedasticity robust standard errors in parentheses. Age, age squared, and log household income have been standardized (mean 0 and standard deviation of 1) before estimation. The thresholds refer to the values of the latent variable at which the outcome changes according to the fitted model (3 thresholds separating 4 ordered response categories).