Help thy neighbor

How neighborhood relations buffered the negative impact of COVID-19 on subjective well-being and trust

Abstract

The importance of neighbors is highlighted in times of crisis, such as the COVID-19 pandemic: They offer support by providing small services and a sense of community. Using panel data from Switzerland, this study investigates how and for whom relations with neighbors changed during the pandemic. In a second step, changes in subjective well-being and trust in other people are linked to changes in neighborly relations. The results show that the negative impact of the pandemic on people's subjective well-being and trust was much less pronounced for those who improved their relations with neighbors. Meanwhile, those with more resources prior to the pandemic were more likely to improve neighborly relations. Consequently, this study finds evidence for a social gradient in subjective well-being and trust that partly works through changes in neighborhood networks. Robustness analyses further show that the documented effects are indeed attributable to changes induced by the pandemic.

Keywords: neighborhood effects, neighborhood relations, subjective well-being, trust, COVID-19, panel data

1 Introduction

Apart from friends and family, neighbors are among the first to provide everyday help and support (LaLone, 2012; Wellman and Wortley, 1990; Zetterberg et al., 2021). More

generally, neighbors and neighborhoods are crucially associated with people's well-being (Ludwig et al., 2012; Sampson et al., 2002). While much research has focused on neighborhood effects on objective measures of well-being, such as educational chances, labor market outcomes, or physical health (Brattbakk and Wessel, 2013; Oakes et al., 2015; Sampson et al., 2002; Zangger, 2019), researchers increasingly investigate the effects of neighborhood environments and networks on people's subjective well-being (Bonomi Bezzo et al., 2021; Farrell et al., 2004; Jaramillo et al., 2020; Wang and Wang, 2016). Following Diener (2009), subjective well-being comprises an overall assessment of one's satisfaction with life as well as of pleasant and unpleasant experiences (positive and negative affect). Given its association with people's physical and mental health (Dong and Qin, 2017; Jaramillo et al., 2020), subjective well-being can also be considered an additional path through which neighborhoods and neighbors affect individual life chances.

Recently, the COVID-19 pandemic and the corresponding social confinement measures have led to a significant decrease in many people's subjective well-being, particularly of those with less socio-economic resources and those in more disadvantaged areas (Bonomi Bezzo et al., 2021; Zacher and Rudolph, 2021). Likewise, the pandemic also led to increasing tensions, uncertainty, and an erosion of trust (Kye and Hwang, 2020; Sibley et al., 2020). At the same time, we witnessed an increase in neighborhood help initiatives in response to the challenges confronting people and especially at-risk groups (Miao et al., 2021; Zetterberg et al., 2021). Against this background, the present contribution investigates to what extent neighborhood relations changed in the course of the COVID-19 pandemic and whether neighborhood networks buffered the negative effects on subjective well-being and trust.

More specifically, the present contribution pursues two goals: First, using longitudinal data from Switzerland, it examines how neighborhood relations changed during the pandemic in different residential contexts and how these changes vary for different social groups. Second, it relates these changes to changes in subjective well-being and generalized trust. Can neighbors buffer the negative effects of the pandemic? Focusing on subjective well-being and generalized trust not only follows from the crucial role of localized social capital (Putnam, 2000; Sampson and Graif, 2009; Zetterberg et al., 2021), but it also allows for an assessment of both individual (well-being) and societal consequences (trust) of neighborhood relations in times of crisis and increased strain.

Consequently, the contribution of this paper is twofold. On the one hand, it provides a comprehensive assessment of how neighborhood relations changed in times of crisis and how localized networks mediated the negative effects of social confinement and isolation. Second, it more generally contributes to the literature on neighborhood effects which is still predominantly concerned with objective measures of people’s well-being, such as neighborhood effects on income, education, or physical health (Ludwig et al., 2012; Sampson, 2019; van Ham and Manley, 2012). Focusing on subjective measures of well-being not only broadens our understanding of neighborhood effects on people’s lives but, given its effects on, for example, labor market or health outcomes (De Neve et al., 2013), also adds an additional path through which neighborhood networks affect objective measures of well-being.

2 Background

2.1 Neighborhoods, neighbors, subjective well-being, and trust

Several mechanisms have been suggested to explain neighborhood effects on subjective well-being. First, existing research suggests effects of the residential environment, such as the share of public green spaces, neighborhood density, or the accessibility of transport and shopping opportunities (Dong and Qin, 2017; Mouratidis, 2020; Wang and Wang, 2016). Meanwhile, rather than a direct effect, such physical neighborhood characteristics affect subjective well-being through residents’ perception of their local surroundings (Jaramillo et al., 2020; Mouratidis, 2020).

Second, neighborhood composition, for example with regard to income, is put forward as another explanation for effects of the residential environment on subjective well-being (Farrell et al., 2004; Ludwig et al., 2012). In this regard, we can think of two different mechanisms. On the one hand, people in one’s vicinity can provide resources and help, especially in times of crisis (Aldrich and Meyer, 2015; LaLone, 2012). This then stresses the importance of neighbors with more resources (e.g., with regard to income, status, or time). Existing research finds effects in line with this argument: Using data from Moving to Opportunity, Ludwig and colleagues (2012) demonstrate that subjective well-being increases if the share of poor neighbors decreases. Studies from other contexts also find a positive association of individual subjective well-being and neighbors’ income

(Brodeur and Flèche, 2019; Kingdon and Knight, 2007). This latter effect, however, is contrasted by a negative effect of the median income at the regional level (Brodeur and Flèche, 2019; Ifcher et al., 2018). This complex pattern then indicates a second mechanism of compositional effects on subjective well-being: People compare themselves to others, which can result in relative deprivation effects (Galster and Santiago, 2006; Howley et al., 2015), that is, a decrease in subjective well-being when the frame of reference is perceived as comprising people that are better-off.

Third, neighborhood social capital and localized networks are put forward to explain how the neighborhood environment might affect individual subjective well-being (Cramm et al., 2013; Farrell et al., 2004; Helliwell and Putnam, 2004; Howley et al., 2015). More generally, neighborhood social capital comes along with social cohesion, an increased sense of community, and trust among neighbors (Middleton et al., 2005; Perkins et al., 2015; Sampson and Graif, 2009), therewith being influential for a range of individual outcomes – from deviant behavior to educational opportunities and labor market participation (e.g., Brattbakk and Wessel, 2013; Vandecasteele and Fasang, 2021). Regarding subjective well-being, the following mechanism can be put forward. Interactions with neighbors result in an increased sense of community and mutual support, and – especially in difficult times – lead to social connections that protect against sadness, loneliness and low self-esteem (Helliwell and Putnam, 2004). Empirical evidence from a variety of contexts supports this assumption. Using data from the World Value Survey, the US Social Capital Benchmark, and two waves of a comparable Canadian Survey, Helliwell and Putnam (2004) show that ties to neighbors are positively associated with subjective well-being. This result is also confirmed by newer studies that use more sophisticated methodologies such as instrumental variables (Cramm et al., 2013; Howley et al., 2015). Of note, Greenfield and Reyes (2015) show that especially changes in the relation with one’s neighbors are associated with individual well-being.

While the outlined mechanisms are addressing subjective well-being, much of the reasoning can also be applied to trust. Starting with the last point, the role of localized social networks and social capital, the resulting sense of community supports the formation of trust at the local as well as the wider, societal level (Delhey et al., 2011; Hays, 2015; Newton, 2001). Consequently, changes in neighborly relations and neighboring likely also affect

trust in other people. Moreover, studies point to the importance of neighborhood (ethnic) composition (e.g., Gereke et al., 2018; Marschall and Stolle, 2004), although this effect is again largely dependent on the amount of interaction with neighbors (Schmid et al., 2014; Stolle et al., 2008). Consequently, interactions with neighbors and the therewith mobilized resources are important factors for people’s subjective well-being and generalized trust.

2.2 Neighborhood networks in times of COVID-19

The importance of neighborhood social capital and neighborhood social networks is emphasized in times of crisis: Neighbors provide shelter and help during natural disasters (Aldrich and Meyer, 2015; LaLone, 2012), they provide support to people suffering from mental distress, and they increase mental well-being (Dong and Qin, 2017; Greenfield, 2016). This fact is then also highlighted by the increase in neighborhood help during the COVID-19 pandemic (Miao et al., 2021; Zetterberg et al., 2021): Locally organized help initiatives were essential in providing support to at-risk groups, especially when severe social confinement measures were in place.

Meanwhile, the COVID-19 pandemic and the measures to combat its spread have had a significant effect on people’s subjective well-being, social cohesion, and trust (Carbone, 2020; Devine et al., 2020; Sibley et al., 2020). Studies from around the world have shown that subjective well-being decreased during lockdowns and social distancing measures (Sibley et al., 2020; Zacher and Rudolph, 2021). Similarly, the pandemic also significantly affected people’s generalized trust (Brück et al., 2020; Kye and Hwang, 2020; Thoresen et al., 2021).

However, the impact on both, trust and well-being, differed among groups of people. While Thoresen and colleagues (2021) report increases in generalized trust for people who had personal experiences with COVID-19, Brück and colleagues (2020) find lower levels of trust for those who had close contact with people who tested positive for COVID-19. Moreover, using longitudinal data from Korea, Kye and Wang (2020) find that the effects also vary by social class and political ideology. Similar individual level differences were found for the pandemic’s impact on subjective well-being. Zacher and Rudolph (2021), for example, show for Germany that the change in life satisfaction varied with education. This finding is also confirmed by Bonomi and colleagues (2021), who use longitudinal data from

the UK. Moreover, they find that the decrease in subjective well-being was particularly pronounced in more deprived areas. This finding is in line with evidence from Wuhan (Miao et al., 2021): The adverse effect on people's mental well-being was less pronounced in areas with more services provided by resident groups and voluntary associations.

The last two studies then highlight an important point: The impact of the pandemic varies not only among larger socio-political contexts (e.g., how the crisis was handled by national governments) but also at the local level. With social distancing and lockdown measures, help from and contact with neighbors became an especially important source for coping with the pandemic. However, the potential impact that neighbors made during that time depends, as Zetterberg and colleagues (2021) show in their study, on the amount of pre-pandemic localized social capital.

Against this background, the following hypotheses are proposed. First, it is expected that people who already have had a larger neighborhood network prior to the crisis – regarding contact and the exchange of mutual support and instrumental help – are more likely to report an improvement in neighborly relations during the pandemic. This can be attributed to several factors. People with a larger pre-pandemic neighborhood network are likely more strongly involved in neighborhood-based coping strategies, such as going shopping for their at-risk neighbors. Moreover, although people with less resources benefit most from neighborhood networks (De Meulenaere et al., 2020), those with more advantageous endowments (e.g., higher educational qualifications) usually mobilize more support through such networks (Seifert and König, 2019). With more resources at their disposal, they are also able to provide more support to neighbors in times of crisis, which can improve the relationship with their neighbors.

Second, since locally organized instrumental and also emotional support were especially important during the pandemic (De Meulenaere et al., 2020; Miao et al., 2021; Zetterberg et al., 2021), changes in one's neighborhood network during that period should be largely independent from the size and amount of interaction in other, geographically more disperse social networks. Thus, while those with a larger neighborhood network are expected to have improved their relation with neighbors in that time, a larger network of friends and colleagues should have played only a minor role.

Third, the decline in people's subjective well-being and generalized trust will likely differ

with individually available resources to cope with the crisis (Banerjee, 2020; Devine et al., 2020). Moreover, an increase in neighboring activities, solidarity, and social capital in the neighborhood strengthens community resilience and fosters trust (Aldrich and Meyer, 2015; LaLone, 2012; Zetterberg et al., 2021). Consequently, people who improved their relation with neighbors in the course of the pandemic are expected to show a smaller decline in generalized trust and subjective well-being. In other words, a COVID-19-induced increase in neighboring, understood as the exchange of social and instrumental support (Farrell et al., 2004), should buffer the negative effects of the pandemic on people’s generalized trust and subjective well-being.

3 Materials and methods

3.1 Data

To test the hypotheses, this study uses data from the Swiss Household Panel (SHP; (Tillmann et al., 2016)). The SHP is a representative annual, longitudinal study comprising somewhat more than 7’000 households. All members of a household aged 14 or older are eligible for participation, resulting in about 12’000 interviews. While data is usually collected at the end of each calendar year, an additional data collection took place between 12th of May and June 26th 2020, right after the end of the first lockdown in Switzerland (Reflé et al., 2020). 67% of all invited respondents from the previous wave (2019) completed a short 15 minutes, self-administered survey, either on paper or online, which corresponds to 5’843 people from 4’053 households.

Compared to standard waves of the SHP, the COVID-19 questionnaire was considerably shorter. It mainly focused on the effects of the pandemic on people’s economic and social life. Nevertheless, there are several measures that allow for a comparison with previous waves, namely people’s subjective well-being, generalized trust, and changes in their neighborhood network. To make use of the longitudinal structure of the SHP, this study uses data from the COVID-19 survey and the previous wave of data, collected by the end of 2019 (wave 21). Restricting the sample to adults and omitting cases with missing values on any of the included variables resulted in 4’530 and 4’276 cases for the models concerned with subjective well-being and trust, respectively. Respondents in the final sample are

between 18 and 99 years old, about one third holds a tertiary degree, and about one in 20 households moved since the last wave of data collection. Additional information about the sample can be found in Table A1 in the appendix.

3.1.1 Measures

This study assesses subjective well-being by means of people's rating of the overall satisfaction with life on an 11 point scale (Diener et al., 1985). Trust is measured through respondents' subjective assessment of whether you cannot be too careful in your encounters with people or whether most people can be trusted on an 11 point scale (Yamagishi and Yamagishi, 1994). While there was, on average, only a small drop in people's life satisfaction after the end of the 41 days of lockdown in Switzerland, their generalized trust decreased considerably (Table A1 in the appendix).

Of primary interest is whether changes in subjective well-being and generalized trust are associated with changes in people's neighborhood network. In the SHP, social networks are inquired only every third year, the last time at the end of 2019. The COVID-19 questionnaire, however, asked to what extent respondents' relation with their neighbors changed since the start of the pandemic. On the 11 point scale, about two thirds chose the middling category, indicating no change, while the rest reported either a deterioration or an improvement of the relations with their neighbors. Other social network measures were not part of the COVID-19 questionnaire. From the previous wave, however, information about the size of people's friendship, neighborhood, and online social networks is included. Given their left-skewed distributions, these variables were log-transformed in the analyses. Likewise, information on their family network is included, namely whether they have a partner and/or children. All other measures, if not explicitly stated otherwise, were collected in spring/summer 2020, that is, after the end of the first lockdown in Switzerland.

Based on self-reports, people's health is measured on a five point scale. Also, an additional indicator captures whether somebody in respondents' household or somebody they know personally were tested positive for COVID-19. Furthermore, people's age is included linearly as well as a quadratic term to account for the fact that the elderly were more affected by the pandemic and that they usually also rely more on locally organized support, such as instrumental help from neighbors (Seifert and König, 2019).

Additionally, all models account for people's socioeconomic situation. To this end, their occupational status differentiates between people who are employed, self-employed, or economically inactive. People's highest education is controlled for and distinguishes between people who completed at most compulsory schooling (up to ISCED 2), upper secondary (ISCED 3 & 4), and tertiary education (ISCED 5 - 8). Finally, all models control for households' financial situation, differentiating between those who can save money, those who just get by, and those who get into debt.

All models further control for prior residential mobility. Since existing research stresses that the average subjective well-being is usually higher in rural areas and small towns (Farrell et al., 2004; Kingdon and Knight, 2007) and because neighboring likely differs among urban, suburban, and rural areas, the community type is controlled for in all analyses. All models further account for respondents' gender and the duration of residence in Switzerland. Finally, an indicator for neighborhood vandalism in 2019 is included to control differences in neighboring according to neighborhood disorder. When modeling generalized trust, people's self-rated religiosity and their civic engagement are also included, since both have been found to be important determinants of trust and social cohesion (Putnam, 2000). Descriptive statistics of all measures used in the analyses can be found in Table A1 in the appendix.

3.2 Methodological Approach

The analyses proceed in two steps. First, it is evaluated whose relations with neighbors changed to the better or worse. This is followed by an examination of the extent to which changes in neighborhood relations buffer the negative impacts of social confinement and the pandemic on subjective well-being and generalized trust.

Although the underlying data is longitudinal, the change in neighborhood relations during the pandemic was collected as perceived changes compared to the last wave. This then asks for an analytical strategy that relates the perceived change to the repeated measurement of other variables. Change score analysis is a framework that enables an integration of these two perspectives (Allison, 1990; Morgan and Winship, 2014). For the first analytical step, we thus estimate the equation

$$\delta\mathbf{Y} = \mathbf{X}\boldsymbol{\beta} + \boldsymbol{\varepsilon}, \quad (1)$$

where $\delta\mathbf{Y}$ is a vector of the perceived difference in neighborhood relations during the pandemic and $\mathbf{X}$ is a $n \times p$ matrix of observed covariates with $\boldsymbol{\beta}$ the corresponding $p \times 1$ coefficient vector. It is important to note that $\delta\mathbf{Y}$ reflects respondent's self-assessed difference of how the relation with their neighbors changed during the pandemic rather than the difference of the same measure at two time points (i.e., $\mathbf{Y}_t - \mathbf{Y}_{t-1}$). Most importantly, using a self-reported measure of change does not come with the advantage of controlling for unobserved heterogeneity by means of differing out the effects of time-constant unobserved influences (Morgan and Winship, 2014). Consequently, the results should only be seen as a description of whose neighborhood relations changed to the better or worse during the pandemic. Since change in neighboring is analyzed as a categorical variable, differentiating between relations that deteriorated, stayed the same, or improved in the course of the pandemic, multinomial logit models with average marginal effects are reported to ease the interpretation of the effects.

In the second step, the longitudinal nature of the data is used more directly: people's satisfaction with life and their generalized trust are measured in the interim COVID-19 questionnaire using the same items as in pre-COVID-19 waves. However, since the key independent variable, the change in relations with neighbors, is directly measured as respondents' assessment of change, random or fixed effects models are not an option. Thus, we are forced to either again follow a change score approach or a lagged dependent variable strategy. While some have argued in favor of the robustness of change scores (Allison, 1990), Morgan and Winship (2014) caution against such premature conclusions. They highlight that the choice between the two approaches follows from the underlying assumption about the evolution of the counterfactual outcome in the treatment and control group: While a change score approach assumes a constant difference, k , between the treated and controls in the absence of the treatment, that is,

$$\mathbb{E}[Y_{it-1}^0 | D_i = 1] - \mathbb{E}[Y_{it-1}^0 | D_i = 0] = k = \mathbb{E}[Y_{it}^0 | D_i = 1] - \mathbb{E}[Y_{it}^0 | D_i = 0], \quad (2)$$

the lagged dependent variable approach, in which the outcome at time t is regressed on the

outcome at time $t - 1$ and the covariates, assumes that, in the absence of the treatment, the difference between the groups shrinks by a multiplicative factor, r ,

$$\begin{aligned}\mathbb{E}[Y_{it-1}^0|D_i = 1] - \mathbb{E}[Y_{it-1}^0|D_i = 0] &= k, \\ \mathbb{E}[Y_{it}^0|D_i = 1] - \mathbb{E}[Y_{it}^0|D_i = 0] &= k \times r,\end{aligned}\tag{3}$$

and that

$$\lim_{t \rightarrow \infty} \mathbb{E}[Y_{it}^0|D_i = 1] = \mathbb{E}[Y_{it}^0|D_i = 0].\tag{4}$$

Given the general importance of neighborhood relations for subjective well-being and the formation of trust in the local context (Farrell et al., 2004; Jaramillo et al., 2020; Sampson and Graif, 2009), there is no reason to assume that trust and subjective well-being would be the same for people whose relation deteriorated and for those whose relations improved if there were no pandemic. However, using panel data from previous waves allows us to test this assumption more explicitly using a placebo regression approach. To this end, the models will be re-estimated using the changes between 2016 and 2019, allowing an assessment of whether the results can truly be attributed to the emphasized importance of localized social capital during COVID-19. Moreover, the two stages of analysis highlight that the change in relations with neighbors is endogenous, which thus needs to be tested in the second step of analysis.

4 Results

4.1 Changing neighborhood relations in the pandemic

To start with, Figure 1 shows that the relation with neighbors did not change much during the pandemic. Nevertheless, about every 5th person states that their relation improved in that time. Unsurprisingly, those who declared that they had no contact to neighbors and those who did not receive any support from neighbors in pre-pandemic times almost never reported that their relations deteriorated (first stacked bar in Figures 1a and 1b). Meanwhile, those with a larger network of neighbors right before the onset of COVID-19 are more likely to have experienced an increase in their neighborly relations. This pattern is even more pronounced in the case of instrumental support received from neighbors (Figure

(a) by network size (b) by instrumental support from neighbors

Figure 1: Change in neighborhood relations

1b). However, this finding likely also reflects that people who received more instrumental support prior to the crisis are those who are more affected by the pandemic and social confinement, such as the elderly.

The differences in the change of neighborly relations likely reflect unequal resources and opportunities for interactions with one's neighbors. For a more complete picture of whose relationship with neighbors changed during the pandemic, Table 1 presents the results (as average marginal effects) of a multinomial logit model. Since the quality of ties has been shown to be more important than the quantity of ties (Ward et al., 1984), the instrumental support from neighbors and the frequency of contact with friends are included. For respondents' online social network, however, the number of ties is the only network information available.

Starting at the top of Table 1, compared to those who hadn't received any instrumental help from their neighbors prior to the pandemic, the probability for an improvement of neighborly relations is 10 percentage points higher for those who had received a lot of support from their neighbors. Likewise, those who indicated moderate support from neighbors are 8.5 percentage points more likely to report an improvement in their relations but also 1.4 percentage points more likely to report a deterioration. Finally, people who received little support have a 3 percentage points higher probability to report a deterioration of their neighborly relations. Once the neighborhood network is accounted for, the effects of other social networks are almost absent. Only respondents who had weekly contact with their friends prior to the pandemic are found to have a 7.6 percentage higher likelihood

for improving their relation with neighbors. Likewise, those who had reported a larger online social network in the previous wave are also more likely to report an improvement of neighboring during the COVID-19 crisis.

Furthermore, those in better health are less likely to report that their relations with neighbors deteriorated (by 1.3 percentage points). Likewise, compared to respondents who do not know anybody with a positive COVID-19 test result, people who went through a COVID-19 infection themselves or with friends that were tested positive are less likely to report no change in their neighborhood network (by 10.5 and 6.5 percentage points, respectively). Changes in neighborly relations are also related to the resources people possess: If respondents are in a tight financial situation, they have a 2.6 percentage points higher likelihood that the relation with their neighbors deteriorated. At the same time, although only marginally significant at the 10% level, poorer households also seem to be more likely to improve relations with their neighbors. This might also reflect greater needs for help and support in their immediate surroundings in times of crisis. Meanwhile, the higher respondents' education, the more likely they are to improve their relations with neighbors during the pandemic. While people with completed secondary schooling have a 7.7 percentage points higher probability for improving relationships, those with tertiary degrees have a 15.9 percentage points higher likelihood to report an improvement in neighboring compared to those who at most completed compulsory education.

Compared to men, women have a 4.8 percentage points higher probability to report an improvement in neighboring during the pandemic. Finally, compared to people in urban centers, respondents in other regional structures are less likely to report a deterioration or an improvement in neighborly relations. All these effects are additionally controlled for age, age², partnership status, presence of children, occupational status, and residential mobility.

4.2 Neighborhood relations, subjective well-being and trust in times of crisis

For the second part of the analyses, it was expected that improving relations with neighbors buffered the negative effects of the pandemic on subjective well-being and trust. Table 2 depicts the results using the respective change scores as dependent variables.

The first column of Table 2 gives the results for the change in people's life satisfaction.

	deteriorated	stayed the same	improved
Support from neighbors			
a little support	0.030* (0.013)	−0.063* (0.026)	0.033 (0.024)
moderate support	0.014* (0.006)	−0.099*** (0.015)	0.085*** (0.014)
a lot of support	0.003 (0.008)	−0.103*** (0.019)	0.100*** (0.018)
Contact with friends			
less than once a month	−0.030 (0.025)	0.020 (0.045)	0.011 (0.041)
monthly	−0.030 (0.021)	−0.030 (0.036)	0.060 (0.032)
weekly	−0.034 (0.021)	−0.042 (0.035)	0.076* (0.031)
Log(size online social network)	0.000 (0.000)	−0.002* (0.001)	0.002* (0.001)
Health	−0.013** (0.004)	0.015 (0.010)	−0.003 (0.009)
COVID-19 infection			
respondent or someone in household	0.037 (0.028)	−0.105* (0.051)	0.068 (0.048)
someone respondent knows personally	−0.001 (0.006)	−0.065*** (0.013)	0.065*** (0.013)
Household finances			
HH spends what it earns	−0.007 (0.006)	−0.007 (0.015)	0.014 (0.014)
HH eats its assets or gets into debt	0.026* (0.012)	−0.066** (0.024)	0.040 (0.022)
Education			
upper secondary education	−0.006 (0.010)	−0.071*** (0.020)	0.077*** (0.018)
tertiary education	−0.003 (0.011)	−0.157*** (0.022)	0.159*** (0.021)
Gender			
woman	−0.011 (0.006)	−0.037** (0.013)	0.048*** (0.013)
Community typology			
suburban communes	−0.031* (0.013)	0.088*** (0.025)	−0.057* (0.024)
wealthy communes	−0.023 (0.016)	0.060 (0.033)	−0.037 (0.032)
peripheral urban communes	−0.030* (0.013)	0.087** (0.027)	−0.057* (0.025)
tourist communes	−0.023 (0.020)	0.099* (0.042)	−0.076 (0.039)
industrial and tertiary sector communes	−0.025 (0.014)	0.089** (0.028)	−0.064* (0.027)
rural commuter communes	−0.022 (0.013)	0.045 (0.026)	−0.023 (0.025)
mixed agricultural communes	−0.035** (0.013)	0.088** (0.028)	−0.053 (0.027)
peripheral agricultural communes	−0.042** (0.015)	0.081* (0.036)	−0.039 (0.035)
Observations		4'849	
Pseudo-R ²		0.039	

Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; Controlled for relationship status, children, household relocation, occupational status, age, and age²; Reference: No support/no neighbors, no contact/no friends, no infection, household can save money, at most compulsory schooling, man, urban centers

Table 1: Change in neighborhood relation due to the pandemic – AME

	2020 vs. 2019	
	Change score SWB	Change score trust
Change neighborly relations	0.361*** (0.077)	0.288* (0.123)
(Change neighborly relations) ²	-0.026*** (0.006)	-0.018 (0.010)
Log(size neighborhood network)	0.004 (0.004)	-0.012* (0.006)
Log(size friendship network)	-0.004 (0.008)	-0.022 (0.012)
Log(size online social network)	-0.005 (0.003)	-0.006 (0.005)
Days since end of lockdown	0.009*** (0.002)	0.004 (0.003)
Health	0.330*** (0.030)	0.056 (0.047)
COVID-19 infection		
respondent or someone in household	-0.205 (0.154)	0.108 (0.239)
someone respondent knows personally	-0.079 (0.041)	0.049 (0.066)
Household finances		
HH spends what it earns	0.228*** (0.046)	0.158* (0.072)
HH eats its assets or gets into debt	0.243*** (0.070)	0.059 (0.111)
Gender		
woman	-0.117** (0.041)	-0.099 (0.065)
Community typology		
suburban communes	-0.123 (0.076)	-0.066 (0.120)
wealthy communes	-0.161 (0.101)	0.099 (0.159)
peripheral urban communes	-0.124 (0.081)	-0.045 (0.128)
tourist communes	-0.073 (0.130)	0.005 (0.206)
industrial and tertiary sector communes	-0.238** (0.085)	0.042 (0.135)
rural commuter communes	-0.064 (0.078)	-0.035 (0.122)
mixed agricultural communes	-0.054 (0.086)	0.021 (0.135)
peripheral agricultural communes	-0.034 (0.112)	-0.090 (0.177)
Voluntary work		0.034 (0.066)
Feeling of religiosity		0.059* (0.029)
Observations	4530	4276
R^2	0.063	0.016

Standard errors in parentheses, Controlled for household relocation, occupational status, education, relationship status, children, duration of residence in Switzerland, neighborhood vandalism, community typology, age, and age²; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2: Change in subjective well-being and generalized trust during the pandemic

Figure 2: Change of subjective well-being and trust by change in neighborly relations

Positive coefficients imply a higher change score, that is, an improvement (or rather, less deterioration) of people’s subjective well-being compared to pre-COVID-19 times. Regarding the research question at hand, we note that those who report a more positive change in the relation with their neighbors during the pandemic also experienced a more positive change in their subjective well-being. However, this effect is non-linear, indicated by the significant, negative quadratic term. People who improved their relations with neighbors a lot during the pandemic experienced only a very small decline in subjective well-being compared to the pre-COVID-19 time (left panel of Figure 2). This effect is independent of other networks, namely the logarithmic size of respondents’ neighborhood, friendship, and online social network, which have been found to influence the change in neighborly relations in Table 1.

Unsurprisingly, those in better health are more likely to experience a more positive (i.e., less negative) change in subjective well-being during the pandemic. Also, the more days have passed since the end of the lockdown, the more positive (less negative) the change in subjective well-being. The rest of the control variables have only a subordinate or no influence. People with more financial difficulties are more likely to have a positive change score. This might, however, merely reflect that they had lower levels of satisfaction to begin with (floor effect). Compared to men, women seem to experience less positive and more negative changes in their life satisfaction in the course of the pandemic. Meanwhile, there is almost no difference in the change in life satisfaction among different regional structures. Compared to people living in urban centers, those in industrial and tertiary sector communes are found to have lower change scores, that is, they experience a more

pronounced decline in life satisfaction.

The second column of Table 2 reveals a similar pattern for the change in generalized trust. Again, people who improved their relations with neighbors have a more positive change score, that is, their trust in others was less affected by the pandemic (see Figure 2b). Indicated by the insignificant effect for the quadratic term, this effect appears to be linear. Moreover, from the right panel of Figure 2, we infer that people who improved their relations with neighbors a lot during the pandemic report only a small decline in trust compared to pre-COVID-19 times. In line with the expectation, most of the other network measures (e.g., friends, online network) again have no additional effect.

Indicated by the insignificant effect of the number of days since the end of the first lockdown, the negative impact of the pandemic seems to be longer lasting in the case of generalized trust than in the case of subjective well-being. Moreover, there is no effect of a COVID-19 infection. Compared to households who can save money, those in a tighter financial situation are somewhat more likely to report more positive and less negative change. This again likely reflects the aforementioned floor effect. In contrast to the change in subjective well-being, there are no differences between men and women, and among regions. While civic engagement prior to the pandemic has no effect, more religious people experienced more positive and thus less negative change in generalized trust. With respect for the additional control variables that are not reported in Table 2, only respondents' age has a significant nonlinear effect: Older people generally report less negative changes, although this effect is inversely U-shaped. There are no differences in the change of trust during the pandemic regarding people's education, occupational status, residential mobility, partnership status, neighborhood vandalism, migration history, or whether they have children.

4.3 Robustness

Table 1 demonstrates that the change in neighboring is endogenous. If the covariates in Table 2 do not account for this endogeneity, results are likely biased (Wooldridge, 2010). As a first test, we thus check whether the change in neighboring can be treated as exogenous in the second part of the analyses. To do so, the residuals of a regression of the change scores on all the covariates from both models in Tables 1 and 2 are included in the second

	500 bootstrapped samples	
	χ^2 (1)	p - value
Change score subjective well-being	0.063	0.802
Change score generalized trust	3.177	0.075

Table 3: Testing endogeneity

step of analysis (Durbin–Wu–Hausman test).

For the sake of robust inference, the test-statistics in Table 3 are based on 500 bootstrap samples. While we clearly fail to reject the null-hypothesis of an exogenous influence of the change in neighborhood relation on the change in subjective well-being ($\chi^2(1) = 0.063$, $p = 0.802$), the situation is less clear in the case of generalized trust. The χ^2 value of 3.177 and the corresponding p -value of 0.075 indicate that the change in neighboring behavior might be endogenous when modeling the change in generalized trust between 2019 and 2020. However, given the 500 bootstrap replications and the difficulties in finding adequate instruments to account for the potential endogeneity (IV-estimation), we are confident that at most only minor bias is introduced. Nevertheless, one should be cautious when interpreting the positive effect of changes in neighborly relations on the change in generalized trust during COVID-19.

As a second, more general test of the models presented thus far, a placebo regression approach is followed. It was argued that the social distancing and lockdown measures to counteract the spread of COVID-19 made localized social capital to a primary source of help and contact during the crisis. Compared to pre-pandemic times, changes in neighborly relations should thus be of special importance for people’s well-being and trust. Consequently, applying the models to the pre-crisis period should not result in the documented strong association with changes in neighborly relations. Since people’s networks are only inquired every third year, the models are re-estimated for the time between 2016 and 2019. Unlike in the main analyses, the change in neighborly relations has to be constructed. To this end, the difference in self-reported frequency of contact with neighbors is used. Moreover, the other network variables (size of one’s neighborhood, friendship, and online social network) are assessed by means of the 2016 measures. All the other variables are the same as in the main analyses.

	2019 vs. 2016			
	Change score SWB		Change score trust	
Change neighborly relations 2019 vs. 2016	0.009	(0.016)	0.042	(0.022)
(Change neighborly relations) ² 2019 vs. 2016	-0.005	(0.006)	-0.014	(0.008)
Log(size neighborhood network) 2016	-0.003	(0.004)	0.000	(0.006)
Log(size friendship network) 2016	0.005	(0.007)	0.021*	(0.010)
Log(size online social network) 2016	0.006*	(0.003)	-0.001	(0.004)
Observations	4177		4164	
R^2	0.017		0.013	

Standard errors in parentheses; Controlled for all the covariates in the original models.

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

Table 4: Placebo regression: Changes between 2019 and 2016

From Table 4 we infer that the change in neighborly relations between 2016 and 2019 has no significant influence on the change in subjective well-being and trust in other people during that period. Other network measures have only a minor influence. All the additional model variables are included, but are not reported, and are mostly insignificant (since, for example, having went through a COVID-19 infection in 2020 can by no means influence the change in subjective well-being or trust between 2016 and 2019 – see Table A2 in the appendix for the complete list of results). The absence of an effect of the change in neighborly relations highlights that the pattern found before can indeed be attributed to the experiences made during the COVID-19 crisis. Thus, the pandemic not only led to overall lower subjective well-being and trust in other people, but it also changed the interaction with neighbors. Most importantly, having made positive experiences with neighbors during the crisis increased individual and community resilience, and buffered the negative impacts of the pandemic on subjective well-being and generalized trust.

5 Discussion

This paper pursued two interdependent goals. First, using panel data from Switzerland, it investigated for whom relations with neighbors changed during the COVID-19 pandemic. Second, and more importantly, the paper made an assessment of how improving neighborly relations buffered the negative effects of the pandemic on people’s subjective well-being and

trust. Against the more general background of the importance of neighbors in times of crisis (Aldrich and Meyer, 2015; LaLone, 2012), it was argued that, compared to other networks, neighbors were especially important during the pandemic since help and social contacts had to be organized locally due to social distancing and lockdown measures.

In line with a previous study that found a buffering effect of neighborhood infrastructure and services against the adverse effects of COVID-19 on people’s mental health (Miao et al., 2021), this study demonstrated that an improvement in neighborly relations significantly reduced the negative impact of the crisis on people’s subjective well-being and trust, although in a nonlinear fashion. This finding is also in line with work that more generally stresses the importance of perceived changes for individual subjective well-being (Greenfield and Reyes, 2015). In magnitude, the documented effects are comparable to the one of individual health and are considerably stronger than other network influences.

However, not everybody was equally likely to improve their relations with neighbors during the pandemic. In line with recent evidence from Sweden (Zetterberg et al., 2021), people who had received a lot of practical support from neighbors, those with more frequent contact with friends, and people with a larger online social network prior to the pandemic were more likely to improve their neighborly relations. Moreover, people who had more resources to cope with the pandemic (e.g., those in better health, with higher educational degrees, less financial problems) were more likely to improve their relations with neighbors and their subjective well-being and trust was thus less impacted by the pandemic. Consequently, a social gradient in the psychological impact of the COVID-19 pandemic on people’s subjective well-being and trusts exists (Zacher and Rudolph, 2021), and partly works through changes induced in the neighborhood social network.

5.1 Limitations

There are several aspects to keep in mind when thinking about the consequences of the presented findings. First, while this study broadened the scope of recent research (Miao et al., 2021; Zetterberg et al., 2021), and covered not only urban but also suburban and rural settings, the point in time and the specific national context limit the generalizability of the results. Collection of data took place about one month after the end of the first lockdown in Switzerland. Compared to other countries, this lockdown was not as strict

(there were, for example, no curfews) and lasted only 41 days. Consequently, the impact on people's subjective well-being might have been less pronounced than in other countries – an assumption that is supported by the observation in this study that satisfaction with life quickly returned to pre-COVID-19 levels as the days passed since the end of the lockdown. At the same time, however, the negative impact of the crisis on people's trust was found to be more enduring and thus might also relate more generally to other national contexts.

Second, this study cannot use the full potential of longitudinal data to assess causal effects. In the data, changes in neighborly relations during the pandemic were directly obtained through a subjective assessment rather than a repeated measurement of neighborly relations. The change score of neighborly relations in this study thus differs methodologically from “traditional” change score analysis, where the score is constructed as the difference of two subsequent measures (Allison, 1990; Morgan and Winship, 2014). Consequently, the analyses might still be subject to unobserved heterogeneity. Meanwhile, this is less of a problem when analyzing how improving relations with neighbors buffered the negative impact of the pandemic on people's subjective well-being and trust, since the dependent variables are constructed by differing the values of subsequent waves. Moreover, the placebo regressions, applying the models to pre-COVID-19 waves of the data, reinforce the interpretation of a pandemic-induced change in neighborly relations and their buffering effect on subjective well-being and trust. Nevertheless, the results of this study should be seen as a description rather than a causal analysis of how the pandemic changed people's relation with neighbors and how this in turn is associated with the changes in subjective well-being and trust.

Finally, although testing for endogeneity (Wooldridge, 2010) clearly showed that the change in neighborly relations during the pandemic had an exogenous effect on people's subjective well-being, the result for respondents' trust in other people, the second dependent variable, was more ambiguous. Although the null-hypothesis of an exogenous influence cannot be ruled out when using 500 bootstrap samples, the corresponding p -value is nevertheless rather small and endogeneity might thus be an issue. Against the outlined dependence of changes in neighborly relations on people's pre-pandemic socio-economic endowments, the results might thus overestimate the impact of the neighborhood network on people's generalized trust.

5.2 Conclusion

Neighbors are an important source of everyday help and support (Greenfield, 2016; LaLone, 2012; Zetterberg et al., 2021). This is especially true in times of crisis, such as the COVID-19 pandemic, when social distancing and social confinement measures limit people's scope of action, contacts and support to the local context.

The results of this study come with several implications for both research and policy. First, this study stressed the importance of investigating neighborhood effects not only on objective but also on subjective measures of well-being (Ludwig et al., 2012; van Ham and Manley, 2012; Wang and Wang, 2016). Second, not everybody was equally likely to improve relations with neighbors during the crisis. In this regard, especially those with more resources in terms of education, finances, and social networks – as well as women – were more likely to report an increase in neighboring. Consequently, future research as well as public policy should carefully consider the socially unequal impact of initiatives that aim at promoting local social networks and neighborhood social capital. Third, supporting community resilience can be a powerful approach to help people, especially the elderly and at-risk groups, to get through times of crisis (LaLone, 2012). In the present case, the effects of improving neighborly relations outweigh many of the individual-level effects. Targeted neighborhood initiatives might therefore not only provide everyday support to neighbors but they are likely especially suited to protect against the negative impacts of social confinement and social isolation which restrict people's scope of action and contacts to the more local level. Finally, given the positive association of improving neighborly relations with generalized trust, such neighborhood initiatives bear the potential to strengthen social cohesion beyond their local scope. Consequently, local interventions that foster contact, exchange, and interactions among neighbors are of value for the functioning of the whole society.

References

Aldrich DP and Meyer MA (2015) Social Capital and Community Resilience. *American Behavioral Scientist* 59(2): 254–269. DOI:10.1177/0002764214550299.

- Allison PD (1990) Change Scores as Dependent Variables in Regression Analysis. *Sociological Methodology* 20: 93–114.
- Banerjee D (2020) The impact of Covid-19 pandemic on elderly mental health. *International Journal of Geriatric Psychiatry* 35(12): 1466–1467. DOI:10.1002/gps.5320.
- Bonomi Bezzo F, Silva L and van Ham M (2021) The combined effect of Covid-19 and neighbourhood deprivation on two dimensions of subjective well-being: Empirical evidence from England. *PLOS ONE* 16(7): e0255156. DOI:10.1371/journal.pone.0255156.
- Brattbakk I and Wessel T (2013) Long-term Neighbourhood Effects on Education, Income and Employment among Adolescents in Oslo. *Urban Studies* 50(2): 391–406.
- Brück T, Ferguson NTN, Justino P and Stojetz W (2020) Trust in the time of corona. Technical Report 2020/82, UNU-WIDER. DOI:10.35188/UNU-WIDER/2020/839-9.
- Brodeur A and Flèche S (2019) Neighbors’ Income, Public Goods, and Well-Being. *Review of Income and Wealth* 65(2): 217–238. DOI:10.1111/roiw.12367.
- Carbone SR (2020) Flattening the curve of mental ill-health: the importance of primary prevention in managing the mental health impacts of COVID-19. *Mental Health & Prevention* 19: 1–3. DOI:10.1016/j.mhp.2020.200185.
- Cramm JM, van Dijk HM and Nieboer AP (2013) The Importance of Neighborhood Social Cohesion and Social Capital for the Well Being of Older Adults in the Community. *The Gerontologist* 53(1): 142–152. DOI:10.1093/geront/gns052.
- De Meulenaere J, Baccarne B, Courtois C and Ponnet K (2020) Disentangling social support mobilization via online neighborhood networks. *Journal of Community Psychology* Online First: 1–18. DOI:10.1002/jcop.22474.
- De Neve J, Diener E, Tay L and Xuereb C (2013) The objective benefits of subjective well-being. In: Helliwell J, Layard R and Sachs J (eds.) *World happiness report 2013*. New York: UN Sustainable Development Solutions Network, pp. 54–79.
- Delhey J, Newton K and Welzel C (2011) How General Is Trust in “Most People”? Solving the Radius of Trust Problem. *American Sociological Review* 76(5): 786–807.

- Devine D, Gaskell J, Jennings W and Stoker G (2020) Trust and the Coronavirus Pandemic: What are the Consequences of and for Trust? An Early Review of the Literature. *Political Studies Review* Online First: 147892992094868. DOI:10.1177/1478929920948684.
- Diener E (2009) Subjective Well-Being. In: Diener E (ed.) *The Science of Well-Being*, number 37 in Social Indicators Research Series. Dordrecht: Springer Netherlands, pp. 11–58.
- Diener E, Emmons RA, Larsen RJ and Griffin S (1985) The Satisfaction With Life Scale. *Journal of Personality Assessment* 49(1): 71–75.
- Dong H and Qin B (2017) Exploring the link between neighborhood environment and mental wellbeing: A case study in Beijing, China. *Landscape and Urban Planning* 164: 71–80. DOI:10.1016/j.landurbplan.2017.04.005.
- Farrell SJ, Aubry T and Coulombe D (2004) Neighborhoods and neighbors: Do they contribute to personal well-being? *Journal of Community Psychology* 32(1): 9–25. DOI:10.1002/jcop.10082.
- Galster GC and Santiago AM (2006) What’s the Hood got to do with it? Parental perceptions about how neighborhood mechanisms affect their children. *Journal of Urban Affairs* 28(3): 201–226.
- Gereke J, Schaub M and Baldassarri D (2018) Ethnic diversity, poverty and social trust in Germany: Evidence from a behavioral measure of trust. *PLOS ONE* 13(7): e0199834. DOI:10.1371/journal.pone.0199834.
- Greenfield EA (2016) Support from Neighbors and Aging in Place: Can NORC Programs Make a Difference? *The Gerontologist* 56(4): 651–659. DOI:10.1093/geront/gnu162.
- Greenfield EA and Reyes L (2015) Continuity and Change in Relationships with Neighbors: Implications for Psychological Well-being in Middle and Later Life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 70(4): 607–618. DOI: 10.1093/geronb/gbu084.
- Hays RA (2015) Neighborhood Networks, Social Capital, and Political Participation: The

- Relationships Revisited. *Journal of Urban Affairs* 37(2): 122–143. DOI:10.1111/juaf.12137.
- Helliwell JF and Putnam RD (2004) The social context of well-being. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences* 359: 1435–1446.
- Howley P, Neill SO and Atkinson R (2015) Who Needs Good Neighbors? *Environment and Planning A: Economy and Space* 47(4): 939–956. DOI:10.1068/a140214p.
- Ifcher J, Zarghamee H and Graham C (2018) Local neighbors as positives, regional neighbors as negatives: Competing channels in the relationship between others' income, health, and happiness. *Journal of Health Economics* 57: 263–276. DOI: 10.1016/j.jhealeco.2017.08.003.
- Jaramillo A, Rohe WM and Webb MD (2020) Neighborhood Opportunity and Satisfaction Among Housing Choice Voucher Recipients: A Subjective Well-Being Perspective. *Housing Policy Debate* 30(5): 703–717. DOI:10.1080/10511482.2020.1737830.
- Kingdon GG and Knight J (2007) Community, comparisons and subjective well-being in a divided society. *Journal of Economic Behavior & Organization* 64(1): 69–90. DOI: 10.1016/j.jebo.2007.03.004.
- Kye B and Hwang SJ (2020) Social trust in the midst of pandemic crisis: Implications from COVID-19 of South Korea. *Research in Social Stratification and Mobility* 68: 100523. DOI:10.1016/j.rssm.2020.100523.
- LaLone MB (2012) Neighbors Helping Neighbors: An Examination of the Social Capital Mobilization Process for Community Resilience to Environmental Disasters. *Journal of Applied Social Science* 6(2): 209–237. DOI:10.1177/1936724412458483.
- Ludwig J, Duncan GJ, Gennetian LA, Katz LF, Kessler RC, Kling JR and Sanbonmatsu L (2012) Neighborhood effects on the long-term well-being of low-income adults. *Science* 337(6101): 1505–1510.
- Marschall MJ and Stolle D (2004) Race and the City: Neighborhood Context and the Development of Generalized Trust. *Political Behavior* 26(2): 125–153. DOI:10.1023/B:POBE.0000035960.73204.64.

- Miao J, Zeng D and Shi Z (2021) Can neighborhoods protect residents from mental distress during the COVID-19 pandemic? Evidence from Wuhan. *Chinese Sociological Review* 53(1): 1–26. DOI:10.1080/21620555.2020.1820860.
- Middleton A, Murie A and Groves R (2005) Social capital and neighbourhoods that work. *Urban Studies* 42(10): 1711–1738.
- Morgan SL and Winship C (2014) *Counterfactuals and Causal Inference: Methods and Principles for Social Research*. 2nd edition. Cambridge: Cambridge University Press.
- Mouratidis K (2020) Neighborhood characteristics, neighborhood satisfaction, and well-being: The links with neighborhood deprivation. *Land Use Policy* 99: 104886. DOI: 10.1016/j.landusepol.2020.104886.
- Newton K (2001) Trust, Social Capital, Civil Society, and Democracy. *International Political Science Review / Revue internationale de science politique* 22(2): 201–214.
- Oakes JM, Andrade KE, Biyoow IM and Cowan LT (2015) Twenty Years of Neighborhood Effect Research: An Assessment. *Current Epidemiology Reports* 2(1): 80–87.
- Perkins JM, Subramanian S and Christakis NA (2015) Social networks and health: A systematic review of sociocentric network studies in low- and middle-income countries. *Social Science & Medicine* 125: 60–78. DOI:10.1016/j.socscimed.2014.08.019.
- Putnam RD (2000) *Bowling Alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Refle JE, Voorpostel M, Lebert F, Kuhn U, Klaas HS, Ryser VA, Dasoki N, Monsch GA, Antal E and Tillman R (2020) First results of the Swiss Household Panel – Covid-19 Study. Technical Report 2021-1, FORS, Lausanne. Publisher: FORS.
- Sampson RJ (2019) Neighbourhood effects and beyond: Explaining the paradoxes of inequality in the changing American metropolis. *Urban Studies* 56(1): 3–32. DOI: 10.1177/0042098018795363.
- Sampson RJ and Graif C (2009) Neighborhood Social Capital as Differential Social Orga-

- nization: Resident and Leadership Dimensions. *American Behavioral Scientist* 52(11): 1579–1605.
- Sampson RJ, Morenoff JD and Gannon-Rowley T (2002) Assessing "Neighborhood Effects": Social Processes and New Directions in Research. *Annual Review of Sociology* 28: 443–478.
- Schmid K, Ramiah AA and Hewstone M (2014) Neighborhood Ethnic Diversity and Trust: The Role of Intergroup Contact and Perceived Threat. *Psychological Science* 25(3): 665–674. DOI:10.1177/0956797613508956.
- Seifert A and König R (2019) Help From and Help to Neighbors Among Older Adults in Europe. *Frontiers in Sociology* 4(46): 1–13. DOI:10.3389/fsoc.2019.00046.
- Sibley CG, Greaves LM, Satherley N, Wilson MS, Overall NC, Lee CHJ, Milojev P, Bulbulia J, Osborne D, Milfont TL, Houkamau CA, Duck IM, Vickers-Jones R and Barlow FK (2020) Effects of the COVID-19 pandemic and nationwide lockdown on trust, attitudes toward government, and well-being. *American Psychologist* 75(5): 618–630. DOI:10.1037/amp0000662.
- Stolle D, Soroka S and Johnston R (2008) When Does Diversity Erode Trust? Neighborhood Diversity, Interpersonal Trust and the Mediating Effect of Social Interactions. *Political Studies* 56(1): 57–75. DOI:10.1111/j.1467-9248.2007.00717.x.
- Thoresen S, Blix I, Wentzel-Larsen T and Birkeland MS (2021) Trust and social relationships in times of the COVID-19 pandemic. *European Journal of Psychotraumatology* 12(sup1): 1866418. DOI:10.1080/20008198.2020.1866418.
- Tillmann R, Voorpostel M, Antal E, Kuhn U, Lebert F, Ryser VA, Lipps O and Wernli B (2016) The Swiss Household Panel Study: Observing social change since 1999. *Longitudinal and Life Course Studies* 7(1): 64–78. DOI:10.14301/llcs.v7i1.360.
- van Ham M and Manley D (2012) Neighbourhood effects research at a crossroads. Ten challenges for future research. *Environment and Planning A* 44(12): 2787–2793.
- Vandecasteele L and Fasang AE (2021) Neighbourhoods, networks and unemployment:

- The role of neighbourhood disadvantage and local networks in taking up work. *Urban Studies* 58(4): 696–714. DOI:10.1177/0042098020925374.
- Wang F and Wang D (2016) Place, Geographical Context and Subjective Well-being: State of Art and Future Directions. In: Wang D and He S (eds.) *Mobility, Sociability and Well-being of Urban Living*. Berlin: Springer, pp. 189–230.
- Ward RA, Sherman SR and LaGory M (1984) Subjective Network Assessments and Subjective Well-Being. *Journal of Gerontology* 39(1): 93–101. DOI:10.1093/geronj/39.1.93.
- Wellman B and Wortley S (1990) Different Strokes from Different Folks: Community Ties and Social Support. *American Journal of Sociology* 96(3): 558–588. DOI:10.1086/229572.
- Wooldridge JM (2010) *Econometric Analysis of Cross Section and Panel Data*. Cambridge MA: The MIT Press.
- Yamagishi T and Yamagishi M (1994) Trust and commitment in the United States and Japan. *Motivation and Emotion* 18(2): 129–166. DOI:10.1007/BF02249397.
- Zacher H and Rudolph CW (2021) Individual differences and changes in subjective well-being during the early stages of the COVID-19 pandemic. *American Psychologist* 76(1): 50–62. DOI:10.1037/amp0000702.
- Zangger C (2019) Making a place for space: Using spatial econometrics to model neighborhood effects. *Journal of Urban Affairs* 41(8): 1055–1080.
- Zetterberg L, Santosa A, Ng N, Karlsson M and Eriksson M (2021) Impact of COVID-19 on Neighborhood Social Support and Social Interactions in Umeå Municipality, Sweden. *Frontiers in Sustainable Cities* 3(685737): 1–6. DOI:10.3389/frsc.2021.685737.

Appendix

	mean	sd	min	max
Dependent variables				
Change relation with neighbors 2020 vs. 2019 (categorized)	0.207	0.490	−1.000	1.000
Change life satisfaction 2020 vs. 2019	−0.109	1.360	−10.000	8.000
Change trust 2020 vs. 2019	−0.596	2.052	−10.000	10.000
Independent variables				
Change relation with neighbors 2020 vs. 2019	5.439	1.189	0.000	10.000
log(size neighborhood network) 2019	−2.562	5.735	−11.513	2.708
log(size friendship network) 2019	0.876	2.636	−11.513	2.708
log(size online network) 2019	−4.262	8.154	−11.513	6.908
Practical support from neighbors 2019	1.506	1.126	0.000	3.000
Frequency of contact with friends 2019	2.485	0.762	0.000	3.000
Has partner				
No	0.200	0.400	0.000	1.000
Yes, in same household	0.709	0.454	0.000	1.000
Yes, in another household	0.090	0.286	0.000	1.000
Has children				
No	0.781	0.413	0.000	1.000
Yes	0.219	0.413	0.000	1.000
Voluntary work in 2019	0.393	0.488	0.000	1.000
Household moved since last wave	0.047	0.213	0.000	1.000
Days since the end of lockdown	26.652	11.796	16.000	64.000
COVID-19 infection				
No	0.539	0.499	0.000	1.000
Respondent or someone in HH	0.017	0.129	0.000	1.000
Someone respondent knows personally	0.444	0.497	0.000	1.000
Subjective health	4.308	0.672	1.000	5.000
Labor market status				
Employed	0.498	0.500	0.000	1.000
Self-employed	0.066	0.249	0.000	1.000
Inactive	0.436	0.496	0.000	1.000
Age	55.666	17.209	18.000	99.000
Household financial situation				
HH can save money	0.598	0.490	0.000	1.000
HH spends what it earns	0.301	0.459	0.000	1.000
HH eats its assets or gets into debt	0.101	0.301	0.000	1.000
Highest completed education				
At most compulsory (ISCED 2)	0.084	0.278	0.000	1.000
Upper secondary, non-tertiary (ISCED 3–4)	0.595	0.491	0.000	1.000
Tertiary (ISCED 5–8)	0.321	0.467	0.000	1.000
Neighborhood vandalism	0.047	0.213	0.000	1.000

Gender				
Man	0.458	0.498	0.000	1.000
Woman	0.542	0.498	0.000	1.000
Duration residence in Switzerland				
Since birth	0.768	0.422	0.000	1.000
Up to 10 years	0.010	0.098	0.000	1.000
More than 10 years	0.222	0.416	0.000	1.000
Religiosity	2.326	1.147	1.000	5.000
Community typology				
Centers	0.100	0.300	0.000	1.000
Suburban communes	0.204	0.403	0.000	1.000
Wealthy communes	0.062	0.241	0.000	1.000
Peripheral urban communes	0.148	0.355	0.000	1.000
Tourist communes	0.030	0.171	0.000	1.000
Industrial and tertiary sector communes	0.116	0.320	0.000	1.000
Rural commuter communes	0.181	0.385	0.000	1.000
Mixed agricultural communes	0.114	0.318	0.000	1.000
Peripheral agricultural communes	0.046	0.209	0.000	1.000
<i>N</i>	4530			

Table A1. Descriptive statistics

	2019 vs. 2016			
	Change score SWB		Change score trust	
Change neighborly relations 2019 vs. 2016	0.009	(0.016)	0.042	(0.022)
(Change neighborly relations 2019 vs. 2016) ²	-0.005	(0.006)	-0.014	(0.008)
Log(size neighborhood network) 2016	-0.003	(0.004)	0.000	(0.006)
Log(size friendship network) 2016	0.005	(0.007)	0.021*	(0.010)
Log(size online social network) 2016	0.006*	(0.003)	-0.001	(0.004)
Days since end of lockdown	-0.002	(0.002)	-0.001	(0.002)
Health	0.077**	(0.028)	-0.001	(0.039)
COVID-19 infection				
respondent or someone in household	-0.023	(0.146)	-0.081	(0.204)
someone respondent knows personally	-0.026	(0.040)	0.037	(0.056)
Age	0.022**	(0.007)	0.004	(0.010)
Age ²	-0.000*	(0.000)	-0.000	(0.000)
Household finances				
HH spends what it earns	-0.028	(0.044)	-0.239***	(0.061)
HH eats its assets or gets into debt	-0.141*	(0.067)	-0.219*	(0.093)
Education				
upper secondary schooling	-0.027	(0.072)	0.135	(0.100)
tertiary schooling	-0.047	(0.078)	0.027	(0.109)
Gender				
woman	0.039	(0.039)	-0.017	(0.055)
Feeling of religiosity	0.017	(0.017)	-0.021	(0.024)
Community typology				
suburban communes	0.040	(0.073)	0.079	(0.102)
wealthy communes	0.074	(0.097)	0.252	(0.136)
peripheral urban communes	0.034	(0.078)	0.104	(0.109)
tourist communes	0.135	(0.123)	0.138	(0.173)
industrial and tertiary sector communes	-0.007	(0.083)	0.016	(0.116)
rural commuter communes	-0.035	(0.075)	0.083	(0.105)
mixed agricultural communes	-0.038	(0.083)	0.115	(0.116)
peripheral agricultural communes	0.061	(0.107)	0.199	(0.150)
Partner				
yes, in same household	0.073	(0.052)	0.087	(0.072)
yes, in another household	0.129	(0.077)	0.072	(0.109)
Children in HH	-0.094	(0.052)	0.044	(0.073)
Occupational status				
self-employed	0.119	(0.079)	0.124	(0.110)
inactive	-0.027	(0.054)	0.023	(0.076)
Duration residence in CH				
up to 10 years	-0.491*	(0.201)	-0.041	(0.281)
more than 10 years	0.042	(0.046)	0.031	(0.064)
Voluntary work	0.028	(0.040)	0.041	(0.056)
Problems with vandalism in neighborhood	-0.064	(0.090)	-0.018	(0.126)
Household moved since last wave	0.113	(0.103)	0.136	(0.144)
Observations	4'177		4'164	
R ²	0.017		0.013	

Standard errors in parentheses

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

Table A2. Placebo regressions, full results