Bridging social capital and trust: a research agenda

Marieke Huysentruyt
María de los Ángeles Gutiérrez M.
Yann Algan

January, 2025

Life Is On | Schneider Electric

HEC PARIS | SO SUSTAINABILITY & ORGANIZATIONS institute

About the authors:

- **Marieke Huysentruyt** is an Associate Professor of Strategy & Business Policy at HEC Paris, and academic affiliate at ideas42 (US) and SITE (Sweden). Her current research combines insights from economics, humanities, and behavioral science with causal inference tools – lab, field, and natural experiments- to study how organizations can become more inclusive, foster the creation of social ties, and encourage their employees to take sustainability-actions. In addition to being the Academic Director of the S&O Institute, Marieke is the Academic Director of the Impact Company Lab (cofounded by HEC Paris and Schneider Electric).

- **María de los Ángeles Gutiérrez M.** is a psychologist with a Master of Public Policy from the London School of Economics and Political Science. She began her career in 2017 as Director of Qualitative Research Projects at CADEM Consulting, conducting research on public opinion and evaluating policies across various sectors. In 2019, she joined the Chilean Government as an Advisor for the Ministry of Interior and Public Security, developing and implementing public security policies and advising the Undersecretary of Interior. After completing her master's degree, she led a research project for UNESCO on youth, education, and the global labor market, presenting findings at the II Global Forum Against Racism and Discrimination. In 2023, she worked at the HEC S&O Institute, contributing to the Impact Company Lab.

- **Yann Algan** is the Dean of Pre-experience Programs and Professor of Economics at HEC Paris. His main contributions focus on the role of trust and well-being within organizations and societies, with seminal papers showing the causal impact of trust on economic growth, institutions, populism, and management and organizations. He also focuses on the evaluation of public policy with particular attention to the role of education, management, and employment policies. His work incorporates methods from economics, management, social sciences, psychology, and big data.

This work is the result of a collaboration between the Inclusive Economy Center and the Impact Company Lab of the Sustainability & Organizations Institute at HEC Paris. We acknowledge the financial support of our corporate partner Schneider Electric.

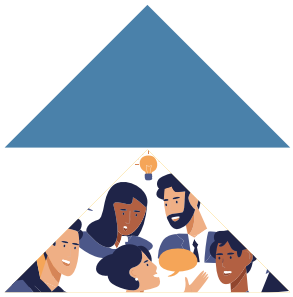
About the HEC Paris Inclusive Economy Center:

The HEC Paris Inclusive Economy Center is dedicated to providing new ideas and insights to help businesses contribute to building an inclusive society with a positive and responsible impact. In a changing world facing a variety of multi-faceted crises, the Center recognizes the continued importance of social cohesion and justice for navigating these crises successfully and robustly. Part of the HEC Sustainability & Organizations Institute, and a pioneer in this space at HEC Paris since 2008, the Center federates expertise on a range of topics, with a focus on two challenges that are particularly relevant today: designing organizational eco-systems that resiliently support the social good, and understanding and enhancing the social cohesion essential for collective and individual well-being. Through its research, teaching, and engagement with businesses and policymakers, it aims to drive meaningful change, equipping organizations with the tools to lead in an increasingly complex world.

About the HEC Paris Impact Company Lab:

Co-founded with Schneider Electric in September 2023, the HEC Paris Impact Company Lab is a leading experimentation platform focused on concretely growing multi-national companies' ability to drive a just transition in a rapidly changing world. It takes an integrated, innovative and future focused approach to the multi-dimensional 'impact' challenges that its' partners are tackling. This interdisciplinary approach enables more holistic understanding of impact driven strategies. This includes: listening to the voices of the places which have most at stake (megacities), leading human-centered engaged research that is both rigorous & relevant, creating experiential learning experiences that harness collective intelligence, focusing on collaboration and systemic value creation. Part the HEC Sustainability & Organizations Institute, the Impact Company Lab thus forges the connections required to push forward new frontier knowledge & practices. As a result, it empowers its partners with thought leadership, tools to scale best "impact" practices, & the ability grow the returns of impact investments.

Table of contents



Prologue

The social bond, described as the cement of our societies by a French newspaper a few years ago, has been noted as crumbling[1].

Despite its acknowledged significance, it is scarcely represented in the key performance indicators of territories, nations, and even companies: Why?

The question arises: is this social bond indeed deteriorating, or could it be possible that amidst the crises we face, people are realizing its vital importance? Consider the solidarity that emerged during the Covid crisis, exemplified by communities applauding healthcare workers every evening in cities like Paris. Could this be a sign of renewal?

However, amid the solidarity, the pandemic also ushered in a wave of individual withdrawal. Individualism, a trend that has been growing in our societies for decades, revolves around material success, productivity, efficiency, and security.

The consequences of this diminishing social cohesion are manifold: diminished well-being, increased insecurity, polarization, and populism. Above all, there is a pervasive sense of loneliness. In France, in 2021, it was reported that 500,000 elderly people experienced a state of social death[2].

Viktor Frankl, the renowned psychiatrist and Holocaust survivor, shared an anecdote. He spent a night talking on the phone with a lady contemplating suicide. By the end of their conversation, she chose life. Why? Because someone was willing to listen to her distress, making life worth living.

In our rapidly changing and increasingly uncertain world, where one crisis follows another, resilience is paramount. Recently, I spoke to a young Nubian/Egyptian who depended on tourism for his livelihood. I asked him how he and his family survived the Arab Spring and the Covid crisis. His response: solidarity within the community.

But how do we thrive when solidarity is lacking? Iranian writer Majid Ranema explored this in his book, 'When Misery Drives Out Poverty,' detailing how poor people find happiness in the presence of social and solidarity ties, and how their reality turns miserable when these ties disappear.

Facing urgent climate and biodiversity issues, along with other planetary boundaries we are exceeding[3], we recognize that ecological transition is a top priority. However, we also understand that people must adapt to the consequences of these major trends. To do so, they need resilience.

To make this transition appealing, we must construct a new narrative. Could it be centered on the quality of relationships we have with others? Not only with like-minded individuals but also with those who are different, who can offer us valuable perspectives if we are open to receiving and giving.

Bénédicte Faivre-Tavignot
Executive Director of the S&O Inclusive Economy Center of HEC Paris

1 https://www.alternatives-economiques.fr/lien-social-ciment-vivre-ensemble/00035583
2 https://www.huffingtonpost.fr/life/article/500-000-francais-en-etat-de-mort-sociale_187156.html
3 https://www.stockholmresilience.org/research/research-news/2023-09-13-all-planetary-boundaries-mapped-out-for-the-first-time-six-of-nine-crossed.html

01 Introduction

Social capital, broadly understood as the set of shared norms and values that contribute to the production of one or more well-being outcomes (OECD, 2013a), has received a huge amount of academic and policy interest in the last quarter-century as a key driver of social progress and well-being. The term social capital conveys the idea that cooperative human relations are crucial for improving various aspects of people's life, and that it consists of a stock that should be preserved and developed for the sustainability of well-being.[1] This is why the influential report of the Commission on the Measurement of Economic Performance and Social Progress made specific recommendations to develop better measures of social connections and social capital (Stiglitz et al., 2009).

Several initiatives since 2009 have advanced our understanding of social capital and of the data resources available to this effort. For example, the OECD has included dimensions of social capital in the framework underpinning its bi-annual report How's Life? (OECD, 2011), while other international task forces have underscored the need to develop better measures of social capital for evaluating the sustainability of well-being over time (UNECE, Eurostat & OECD, 2013).

Today, the increasing availability of digital trace data presents substantial opportunities to better understand the importance of social capital in fostering economic opportunity and (community level) resilience (Kuchler & Stroebel, 2023).

In many ways, social capital exhibits wealth-like characteristics: it underpins future flows of benefits, people can invest in it, it can be more easily destroyed than built (negative shock), it can be degraded and depleted over time, it contributes to production without necessarily being consumed in the process, and it (in particular, bonds of connectedness across diverse social groups) contributes to a community's resilience and post-disaster recovery.[2] However, it is less straightforward to think of growth rates and stock dynamics for social capital than for other components of wealth, and it is particularly difficult to disentangle from human capital and other intangible assets.

1 For individuals, social capital is a resource that encompasses social relationships, civic engagements, and social networks, whereby people access support and opportunities (Agarwala & Zenghelis, 2021) For businesses, social capital relates to trust between firms, employees, investors, and other stakeholders, and can significantly improve firm performance during times of crisis (Lins, Servaes & Tamayo, 2017). For the public, social capital is what enables societies to absorb and respond to shocks, including wars (Guriev & Melnikov, 2016), climate change (Adger, 2009; Semenza et al., 1996), the COVID-19 pandemic (Makridis and Wu, 2021), and financial crises (Helliwell, Huang, and Wang, 2014). As a result, social capital is often referred to as the glue that holds societies together (Grootaert, 1998).

2 Social capital can also reinforce and perpetuate unproductive trends and relationships (Portes, 2014 in Agarwala & Zenghelis, 2021). For example, social capital can be used to reinforce criminal codes of conduct. Tight co-ethnic bonds allow the restriction of the best jobs to members of the in-group. Excessive in-group trust may be felt by the entire society in the form of market errors and bubbles, followed by stampedes (Coleman, 1988). This exemplifies the potential negative consequences of bonding social capital. It is also the reason why in this document, we emphasize the important distinction between bonding and bridging capital.

The main forms of social capital accrue to individuals *(see Box 1),* but they can also be aggregated across individuals (or averaged) to understand how much social capital is possessed by say an organization, a community, a region or even a country. Underscoring the importance of community levels of social capital, a measure of how many links go outward from a community has been found by Bailey et al. (2018) to correlate with important outcomes, such as economic mobility, education rates, and crime. However, there is also a different concept of community capital that differs from an aggregate measure but instead relates to the internal functioning of a community (Jackson, 2020).

For instance, researchers have tended to work with some measure of "trust" to proxy community capital[3], and trust has been found to correlate with various outcomes and measures of societal progress.

A large and robust literature has demonstrated the critical role of bridging social capital[4] and trust[5] to social progress and wellbeing. These two aspects of social capital have been found to be indispensable for upward income mobility (Chetty et al., 2022), economic growth (Beugelsdijk and Sjak, 2003; Algan, 2018), and future economic well-being (Zhang, Anderson, and Zhan, 2011; Algan, 2018).

Despite the measurement challenges, social capital – especially bridging social capital and trust- can have large welfare implications and so is important to better understand. The complexity of the interaction of all the factors that affect how well an organization, community, region, or country functions makes this an ongoing area of research. Bridging social capital and trust at individual, aggregated, organizational, and community levels (community capital) will require further parsing and study. We advance promising directions for future research at the end of this document.

3 Jackson (2020) defines community capital as the ability to sustain cooperative (aggregate social-welfare-maximizing) behavior in transacting, the running of institutions, the provision of public good, the handling of commons and externalities, and/or collective action, within a community.

4 Bridging social capital is defined as the cross-type connectedness. It refers to the extent to which people from different groups -be it different social groups, social class, race, religion or other important socio-demographic or socioeconomic characteristics- are connected. Chetty et al. (2022) focus specifically on cross-class interaction. They measure the share of friends with above-median socio-economic status (SES) among people with below-median SES divided by 50% to quantify the average degree of under-representation of high-SES friends among people of low SES.

5 The OECD defines trust is as a person's belief that another person or institution will act consistently with their expectations of positive behavior (Algan, 2018).

BOX 1. SOCIAL CAPITAL

Social capital has been defined by the OECD as the "networks together with shared norms, values and understandings that facilitate co-operation within or among groups" (OECD, 2001). Despite high level of interest in social capital, there is however little agreement about the best way to define and measure it. This situation has slowed down its incorporation in official statistics and hampered the development of internationally comparable data collection since the Stiglitz-Sen-Fitoussi Commission (2009). Scrivens & Smith (2013) distinguish between four main aspects of social capital:

1. Personal relationships refer to people's networks (i.e., the people they know) and the social behaviours that contribute to establishing and maintaining those networks, such as spending time with others, or exchanging news by telephone or email. This category concerns the extent, structure, density, and components of individuals' social networks. Academics make the distinction between bridging and bonding social capital, to qualify the types of bonds of connectedness. Bridging social capital refers to bonds of connectedness that are formed across diverse social groups, whereas bonding social capital cements only homogeneous groups. Social network scholars have developed a wide-ranging series of measures to characterize the structure of people's networks.

2. Social network supports are a direct outcome of the nature of people's personal relationships and refers to the resources – emotional, material, practical, financial, intellectual, or professional – that are available to each individual through their personal social networks. This dimension, conceptually, captures the variety of mechanisms, or ways via which people's social connections (described above), bring value.

3. Civic engagement measures activities through which people contribute to civic and community life, such as volunteering, political participation, group membership and different forms of community action. High levels of volunteering and civic action can contribute to institutional performance as well as being a driver of levels of trust and cooperation. This aspect of social capital captures behavioral proxies of social capital. Academics have sought to qualify civic engagement further – for instance, distinguishing between civic engagement activities that produce bridging social capital versus strengthen bonding social capital.

4. Trust and cooperation: Following Coleman (1990), "an individual trusts if he or she voluntarily places resources at the disposal of another party without any legal commitment from the latter, but with the expectation that the act of trust will pay off". Trust is best measured at the community level.

In this report, we focus mostly on bridging social capital and trust, as these are the two dimensions of social capital that have been most reliably identified as driving social progress and wellbeing.
At the same time, the role of bridging social capital and trust for organizations remains underexplored. This presents important opportunities for future research.

02 Why do bridging social capital and trust matter?

The academic research on social capital has highlighted a number of relations between social capital and a range of outcomes that matter for the well-being of people and of the country where they live. A recent, growing body of influential studies have underscored the importance of especially bridging social capital and trust, showing that these two aspects (or dimensions) of social capital are indispensable for important economic and social relationships, and subsequently economic, social, and community-level outcomes. Some key findings are described below.

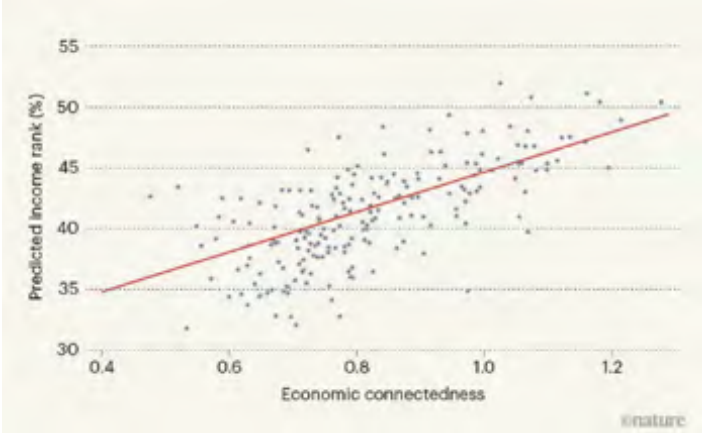
1.1 Why does bridging social capital matter?

Bridging social capital matters for economic mobility

Chetty et al. (2022) investigated the relationship between various measures of social capital and economic mobility (the average income in adulthood of children growing up in low-income families) using data on the social networks of 72.2 million users of Facebook aged between 25 and 44 years to construct new measures of social capital for each ZIP code in the United States.

They found that the degree to which people with low and high socioeconomic status (SES) are friends with each other (which they term economic connectedness) is strongly associated with income mobility, whereas other forms of social capital (social cohesion and civic engagement) are not. Bridging social capital is useful specifically for getting ahead (rather than simply getting by).

Figure 1. Economic connectedness affects future earnings



NOTES

Figure 1 - Economic connectedness affects future earnings. Chetty et al.3 4 analysed the friendships of US facebook users to investigate how various measures of social capital are linked to economic mobility (the average income in adulthood of children growing up in low-income families). They found that one measure — economic connectedness, or the degree to which people of low socio-economic status are friends with people of high socio-economic status in a given area — has a particularly strong association with predicted future income rank. This graph shows the association at county level. (Figure adapted from Fig.4 of ref.3)

Bridging social capital and GDP growth

Many researchers have investigated the relationship between social capital and GDP growth. In a recent study, Muringani, Fitjar & Rodríguez-Pose (2021) explore this relationship with focus on different types of social capital: bonding and bridging social capital. They examine how bonding and bridging social capital impact economic growth. Using data from 190 regions in 21 EU countries and covering eight waves of the European Social Survey from 2002 to 2016, they find important differences between the effects of bonding and bridging social capital on economic growth. The two are highly correlated ***(Figure 1 and 2),*** and individually each is associated with higher levels of growth. However, when both are included in the same model, interesting differences emerge: while bridging social capital has a positive effect on regional economic growth when controlling for bonding, bonding social capital is negative for growth when controlling for the level of bridging in the region.

Furthermore, the findings confirm that human capital moderates the effects of social capital on economic growth. An increase in human capital reduces the negative effects of bonding social capital – i.e., bonding is particularly harmful in low-skilled regions. Meanwhile, bridging social capital works as a substitute for human capital. Specifically, bridging social capital has a stronger effect on growth in regions with lower levels of human capital. Therefore, high levels of bridging social capital can, to some extent, compensate for a lack of human capital in low-skilled regions.

These results suggest that not all types of social capital are the same, and that policymakers are well-advised to focus mainly on promoting bridging social capital as a potential channel to achieve higher levels of development.

Figure 1 and 2. The distribution of bonding and bridging social capital in the EU

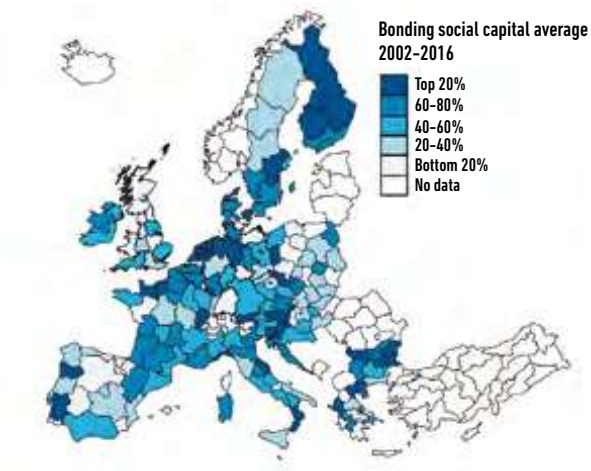


Figure1. Bonding social capital networks, average for 2002-2016

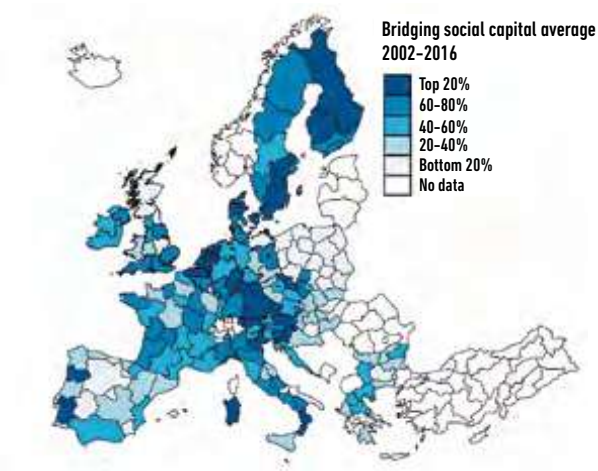


Figure2. Bridging social capital networks, average for 2002-2016

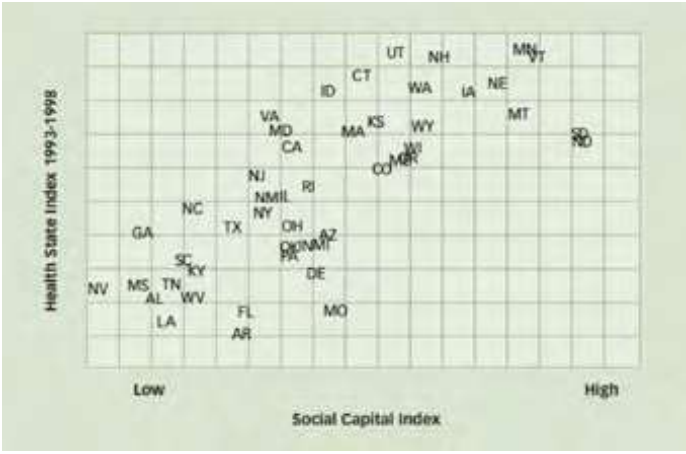
NOTES

The maps in Figure 1 and 2 display the average intensity of bonding and bridging social capital, respectively, in EU regions across the period 2002–2016. Overall, Western Europe has a higher intensity of both types of social capital than Eastern Europe. Nordic countries also show high levels of bridging social capital. Important within-country differences are detected in both bonding and bridging in many countries.

Bridging social capital and health

Bridging social capital has been linked to health outcomes in a number of ways, (1) by improving access valuable resources such as health-relevant information (2) by improving access to instrumental and emotional social support which have been widely reported to affect health behaviors and outcomes; (3) by social reinforcement of identity and mutual influence, and (4) fostering stronger connections across social divisions within the community –and thereby strengthening the collective ability to "voice" their demands or to undertake coordinated actions. However, prior empirical work remains sparse, in part hampered by a lack of reliable measurement (see e.g., meta-review by Villalonga-Olivers and Kawachi, 2015). Among them, Putnam (2001) analyzed long-run trends of social capital in the USA over the course of the twentieth century, developing 13 measures of social capital and later, combining them into a single measure, which considers the degree to which a given state is either high or low in the number of meeting citizens go, the level of social trust its citizens have, the degree to which they spend time visiting one another at home, the frequency with which they go volunteering, among others. Later, he conducted an analysis, employing multivariate regressions, to explore the connections between the social capital index and various significant economic outcomes. His findings provided compelling evidence of the substantial health benefits associated with social connectedness. When controlling for factors like blood chemistry, age, gender, and others, it was observed that joining one group reduced the probability of dying over the next year by half and joining two groups reduced it to a quarter. These consistent results have been reaffirmed by numerous individual-level, longitudinal studies conducted in other countries, including Finland, Japan, among others.

Figure 3. Social capital index and health



Additionally, a study conducted by the World Health Organization (2012) aimed to examine the causal impact on health in 14 European countries. Using data from the European Social Survey and supplemented by regional-level data, the authors studied whether individual (trust) and/or community -level social capital (mean of trust of the residents in the same region) positively affects health. Controlling for other relevant factors that are also expected to affect health, the researchers found a strong causal relationship between social capital and individual health. Community social capital appeared not to affect health once individual-level social capital was controlled for, this is, community social capital does not affect health directly. The results suggest that in terms of policy implications interventions attempting to improve health by building social capital should be targeted at improving primarily individual social capital, because in so doing they would achieve a double effect: on the one hand, they would directly improve individual health; on the other, they would contribute to community social capital, which reinforces the beneficial role of individual social capital. Therefore, an intervention that succeeds in improving the social capital of a large number of individuals in one community would produce a larger health benefit than one that targets the same number of individuals located in a number of different communities.

Social connections and racism

A systematic review was conducted by Ransome et.al. (2023) to investigate the impact of social connections on the relationship between racism and discrimination and its effects on health outcomes. They identified studies conducted in the United States and published between January 1, 2012, and July 30, 2022, in peer-reviewed journals. In 81% of the selected studies, it was found that at least one aspect of social connectedness significantly buffered or mediated the associations between racism and health outcomes, meaning that social connectedness seemed to have a positive effect on people's health when they experienced racism. Notably, negative health effects were often less pronounced among individuals with higher levels of social connectedness. This underscores the importance of social connectedness as a key mechanism in mitigating the adverse health consequences of racial discrimination.

Social capital index and educational performance

According to Putnam (2001) in his analysis of social capital across the United States and its relationships with other variables, he found that the relationship between social capital and educational performance (including SAT scores, test scores, and high school dropout rates) was very strong and consistent.

Furthermore, when controlling for other variables, he noted that this relationship was significantly stronger, by two orders of magnitude, than factors typically associated with enhanced educational performance, such as school spending, teacher-to-pupil ratios, or other commonly considered metrics.

Figure 4. Schools work better in high social capital states

Moreover, a study conducted in the same country by Goddard (2003) examined the effects of social capital on the academic success of elementary school students. The researcher collected data from 2,429 students and 444 teachers in 45 urban elementary schools. They used student achievement data, social capital measures, and school-level variables to test their hypotheses. They found that schools characterized by high levels of social capital had higher pass rates for their students on the high stakes mandated assessments of mathematics and writing.

In the UK, John (2005) investigated the link between social capital and education, analyzing a panel survey of 15–16 and 16–17-year-old students across 27 English schools, testing whether social capital, both at the individual and at the school levels, tends to increase grades and examination performance. The researcher concluded that individual-level trust and voluntary action improve pupil performance, but that the parental networks of some young people, particularly those from low socioeconomic status families, have negative rather than positive consequences in their academic outcomes.

The relationship between education and social capital is often cyclical, implying that basic skills such as reading and writing are necessary to access social capital and that social capital, in turn, helps to drive success. Previous examples illustrate the impact of social capital on education. However, a recent OECD study (2019a) highlights a close link between higher educational attainment and increased social connectedness and social capital. Considering that social cohesion and social capital is often reflected in levels of civic and social engagement, the study found that this connection is most pronounced in cultural and sporting participation, where 90% of adults with tertiary education engage, compared to less than 60% of those with below upper secondary education, on average across OECD countries participating in the European Union Statistics on Income and Living Conditions (EU-SILC).

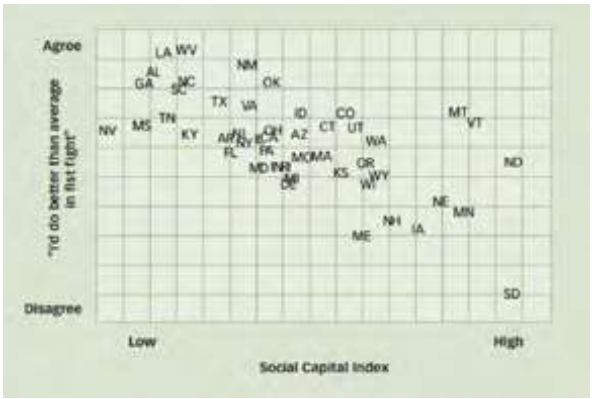
However, the impact of educational attainment on social capital varies across different social activities. While educational attainment strongly affects participation in cultural and sporting activities, the effect is smaller for formal volunteering, with only 7 percentage points of difference between the tertiary-educated and upper secondary-educated adults across OECD countries. Overall, Education is crucial in fostering social and emotional skills that enhance social connections and social engagement, leading to positive social inclusion benefits, including better health and quality of life.

Social capital and crime

Studies consistently demonstrate that lower social cohesion is associated with higher criminal rates. For instance, Putnam's research (2001), which investigated social capital in the United Stated and its interplay with various factors, revealed that crime is strongly negatively predicted by social capital; this trend holds true at the state, community, and neighborhood levels. Again, the strongest predictor of the murder rate is a low level of social capital. This is stronger than poverty and other plausible measures. As depicted in ***Figure 5.1,*** states with higher social capital tend to have lower murder rates, and ***Figure 5.2*** illustrates that areas with greater social capital generally exhibit less pugnacious behavior.

Figure 5.1. Social capital, crime

Figure 5.2. Pugnacious behavior



In a cross-national and multilevel study, Roh and Lee (2013) explore the relationship between social capital and criminal victimization. Social capital, characterized by generalized trust, social norms, and civic engagement, is hypothesized to reduce criminal victimization, beyond individual-level and other country-level factors. Using data from the International Crime Victims Survey (ICVS) across 57 countries, the study finds that higher social capital, particularly trust and social norms, is associated with a reduced likelihood of robbery victimization. With regard to the three dimensions of social capital, generalized trust and social norms exerted significant effects on robbery victimization in the expected direction.

The research conducted by Schober (2022) addresses the issue of youth exposure to violence and its potential link to perpetrating violence. The study employs a panel design to investigate how social support and school social capital can act as protective factors against violence perpetration in violence-exposed youth in the US. The findings reveal that those who witnessed violent acts were at a significantly higher risk of engaging in interpersonal violence. However, when considering protective factors like school social capital, the risk of violence perpetration decreased. This suggests that school-wide policies and programs promoting social capital could play a crucial role in reducing interpersonal violence among adolescents.

Social capital and the worker performance

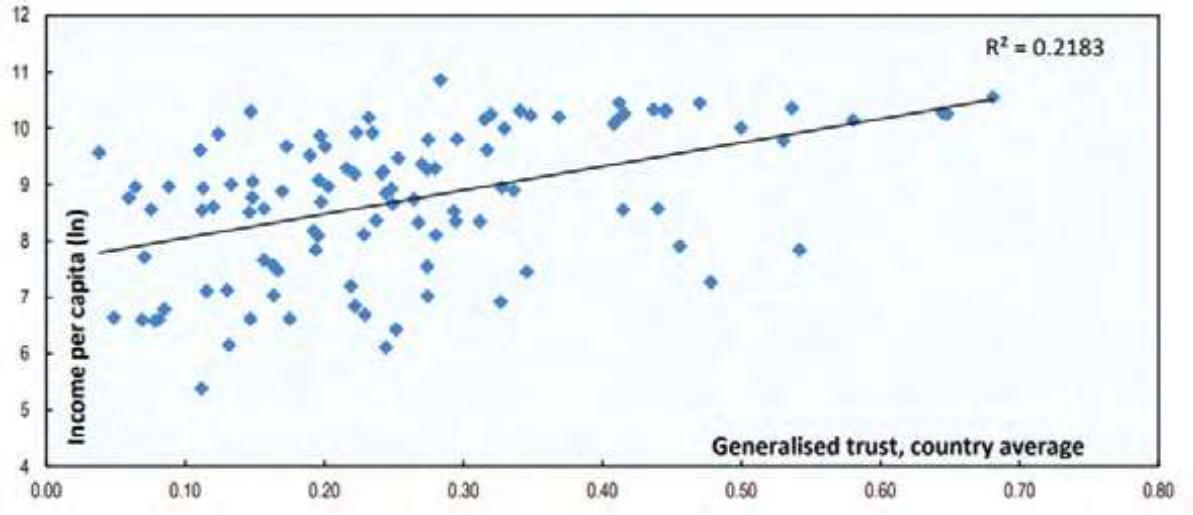
Social networks influence workplace dynamics and outcomes by affecting various aspects of firms and workers behavior, including responses to incentives, compensation structures, and organizational design. A study conducted by Bandiera, Barankay & Rasul (2008) analyzed the formation of social capital in a UK firm to identify causal effects of social ties on worker performance, by exploring friendship ties among co-workers. The analysis revealed that workers are more productive when they have social ties to their managers, particularly when managerial incentives are weak.

2.2 Why does trust matter?

Trust matters for economic activity and GDP growth

According to Algan (2018), countries with higher levels of trust tend to have higher income. The following figure illustrates this relationship by plotting income per capita between 1980 and 2009 against average generalized interpersonal trust (i.e. trust in people in general) between 1981 and 2008 for a sample of 106 countries. The correlation is steady: one fifth of the cross-country variation in income per capita is related to differences in generalized trust. Research carried out since 2009 (Algan & Cahuc, 2010) has shown that this relationship is likely to be causal.

Figure 6. Cross-country correlation between average income per capita and generalized interpersonal trust



NOTES

Average income per capita (1980-2009) has been obtained from the Penn World Tables 7.0. Trust is computed as the country average from responses to the trust question in the five waves of the World Values Survey (1981-2008), the four waves of the European Values Survey (1981-2008) and the third wave of the Afrobarometer (2005). The question asks "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" Trust is equal to 1 if the respondent answers: "Most people can be trusted" and 0 otherwise. Source: Algan and Cahuc (2014).

BOX 2. THE OECD GUIDELINES ON MEASURING TRUST

Modelled after the successful 2013 OECD Guidelines on Subjective Well-being, in 2017 the OECD released a set of Guidelines on Measuring Trust addressed to both producers and users of trust data (OECD, 2017). The Guidelines cover trust in other people, also known as interpersonal trust, and trust in public institutions.

These Guidelines represent the first attempt to provide international recommendations on collecting, publishing, and analysing trust data in order to encourage their use by national statistical offices. They outline why measures of trust are relevant for monitoring and policymaking, and why national statistical agencies have a critical role to play in enhancing the usefulness of existing measures. Besides establishing what is known about the reliability and validity of measures of trust, the OECD Guidelines describe best approaches for measuring it in a reliable and consistent way, and provide guidance for reporting, interpretation and analysis.

The OECD Guidelines also include a number of prototype survey modules on trust that national and international agencies can readily use in their household surveys. Five core measures were selected based on their statistical quality and ability to capture the underlying concepts of trust, building on previous use in household surveys. While this core module is recommended to be used in its entirety, its first question on generalized interpersonal trust is considered as "primary measure", on account of the solid evidence available on its validity:

1. **And now a general question about trust. On a scale from zero to ten, where zero is not at all and ten is completely, in general how much do you trust most people?**
2. **On a scale from zero to ten, where zero is not at all and ten is completely, in general how much do you trust most people you know personally?**

   Using this card, please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust.
3. **(Country's) Parliament?**
4. **The police?**
5. **The civil service?**

As Algan (2018) suggest, early research on the roots of economic development and the origins of income inequality focused on the proximate factors of growth, stressing the role of technological progress and the accumulation of human and physical capital. But since those factors were unable to explain a large share of the cross-country differences in income per capita, the focus has progressively shifted on the role of formal institutions (see the seminal work of North, 1990), considered as factors that support or weaken market institutions (Stiglitz and Arnott, 1991) and that shape the endogenous incentives to accumulate wealth and innovate (Acemoglu et al., 2001, World Development Report, 2002), and to what extent those institutions could be distinguished from factors like human capital (Glaeser et al., 2004). More recently, the attention has been gradually directed towards deeper factors, in particular social capital and trust. Since the path-breaking work of Banfield (1958), Coleman (1974) and Putnam (2000), generalized interpersonal trust – broadly defined as cooperative attitude outside the family circle – has been considered by many social scientists as a key driver of many economic and social outcomes (Knack and Keefer, Dasgupta and Serageldin, 2000; Dasgupta, 2005).

In Algan (2018) analysis, he posits that Arrow (1972) gives one likely explanation for the role of trust in economic development:

"Virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time. It can be plausibly argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence."

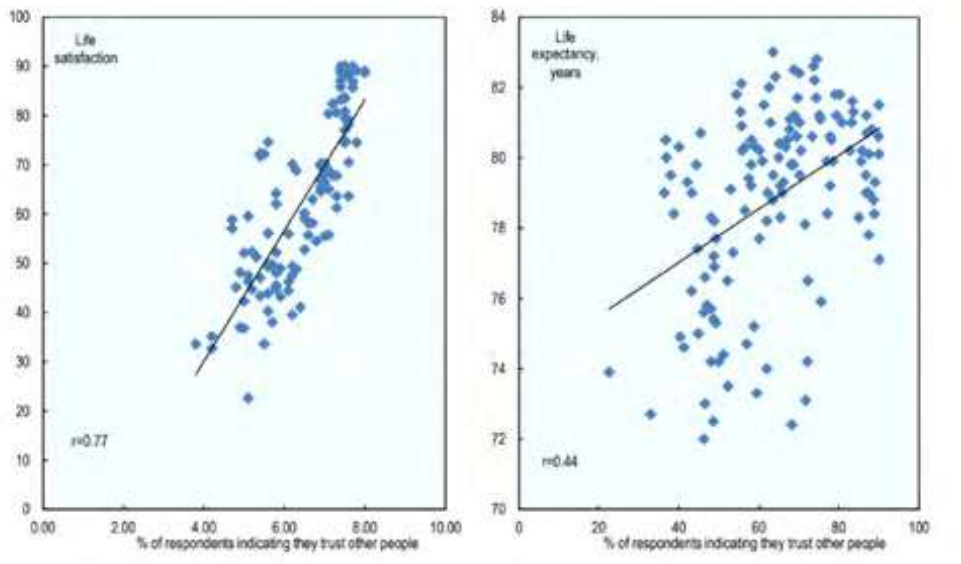
Arrow's intuition was straightforward. In a complex society, it is impossible to write down and enforce detailed contracts that encompass every possible state of the world for economic exchanges. Ultimately, in the absence of informal rules established by trust and trustworthiness, markets are missing, gains from economic exchanges are lost and resources are misallocated. In that respect, trust and the informal rules shaping cooperation could explain differences in economic development. Arrow (1972) considers trust at the core of economic exchange in presence of transactions costs that impede information and contracts. Fundamentally, the economic efficiency of trust flows from the fact that it favors cooperative behavior and thus facilitates mutually advantageous exchanges in presence of incomplete contracts and imperfect information. In Arrow's term, trust in others would act as a lubricant to economic exchange.

Trust is critical to the well-being of citizens

According to Algan (2018), interpersonal trust not only matters for economic outcomes. People seem to have more satisfying lives when they live in an environment of trust and trustworthiness, and when they are more trusting and trustworthy themselves, even controlling for income. It seems that the non-monetary dimension of having cooperative social relationships with others affects health and happiness above and beyond the monetary gains derived from cooperation.

Panel A of Figure 7 illustrates this relationship by using measures of life satisfaction from the World Values Survey question: "All things considered together, how satisfied are you with your life as a whole these days". Life satisfaction ranges from 1 to 10, a higher score indicating a higher life satisfaction. The correlation between life satisfaction and generalized trust is positive: 17 % of the variance in life satisfaction is associated to cross-country differences in generalized trust, with few outliers like Portugal. Panel B of the same Figure also shows a steady positive relationship between generalized trust and life expectancy (OECD, 2016). Similar relationships have been found between generalized trust and different dimensions of health status and health-related behaviour (Lochner et al., 2003; Lindstrom, 2005; Poortinga, 2006; Petrou and Kupek, 2008), and trust and suicide rates (Helliwell, 2007).

Figure 7. Generalized interpersonal trust, life satisfaction and life expectancy, 2002-14



NOTES

Data on generalized trust is sourced from the European Social Survey, data on life satisfaction is sourced from the Gallup World Poll.
Source: OECD (2017), OECD Guidelines on Measuring Trust, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264278219-en.

Trust improves community life and governance

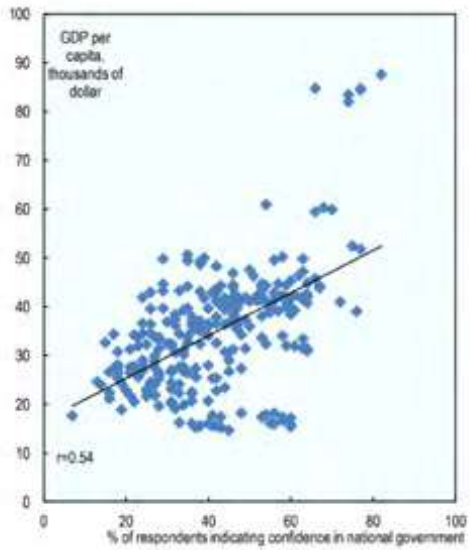
Algan (2018) argues that trust in institutions, or institutional trust, is also a key element of a resilient society and is critical for delivering effective policies, since public programs, regulations and reforms depend on cooperation and compliance of citizens (Blind, 2007; OECD, 2013b). As summarized by different OECD reports (OECD, 2015 and 2016), trust in institutions is a key driver of well-being and economic outcomes.

While interpersonal trust is of primary importance for measuring social capital, institutional trust is most relevant to evaluating the effectiveness of government policies and programs (e.g. Klijn, Edelenbos & Steijn, 2010). When people have a high level of trust in institutions, they are more likely to comply with laws and regulations, and it is easier to implement policies that may involve trade-offs between the short and long term, or between different parts of society, e.g. through taxation or distributive policies (Marien and Hooghe, 2011; OECD, 2013b). Institutional trust is especially important to government activities that address market failures (e.g. health, education and the environment) or where long-term gains require short-term sacrifices (e.g. education and pensions).

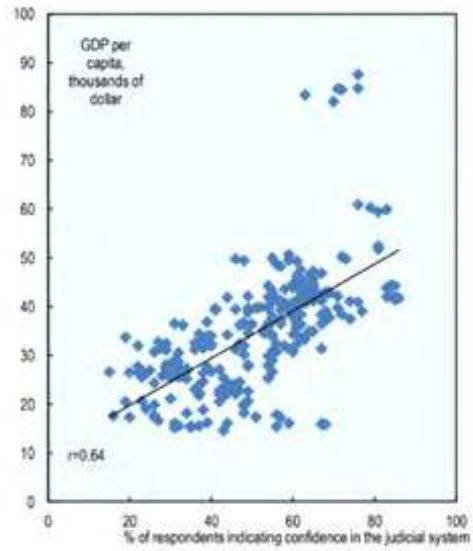
Figure 8, from the OECD Guidelines on Measuring Trust (OECD, 2017), shows the relationship between trust in two institutions – government and the judiciary – and GDP per capita. In both cases there is a strong positive correlation, in particular in the case of the judiciary. This makes intuitive sense, since the key channels through which institutions affect economic outcomes, such as contract enforcement or regulation of the market place, have a more direct link to the judicial system than to the government more generally. It should be stressed that this correlation could also reflect an impact of GDP per capita on institutional trust as discussed in the next sections.

Figure 8. Trust in institutions and GDP per capita in OECD countries, 2006 to 2015

Panel A. Trust in government and GDP per capita



Panel B. Trust in the judicial system and GDP per capita



NOTES

Data on trust in government and on trust in the judicial system are sourced from the Gallup World Poll. Source: OECD (2017), OECD Guidelines on Measuring Trust, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264278219-en.

BOX3. TRUST IN FRANCE

According to Edelman's Trust Barometer (2023), trust levels in France are low across key institutions. In France, the government is the most trusted institution, with only a 56% Trust Index. However economic optimism is low, ranking as the least optimistic among 28 countries surveyed, this means, that expectations for the future economic situation, job opportunities, income growth, and overall financial well-being

The French perceive their country as increasingly divided, with blame directed at the rich and powerful, hostile foreign governments, and business leaders. In this scenario, companies and media face high mistrust, with only 39% of individuals expressing trust in the media, while trust in French companies remains steady both domestically and globally. French citizens call on companies to engage more on societal issues, particularly climate and workforce training. In this context, public-private partnerships are seen as a way to restore trust.

Moreover, in terms of interpersonal trust and according to Ipsos Global Survey (2022), in France only 20% of surveyed individuals believe than most people can be trusted, locating the country far below from the Global Country Average (30%).

03 Loneliness Crisis

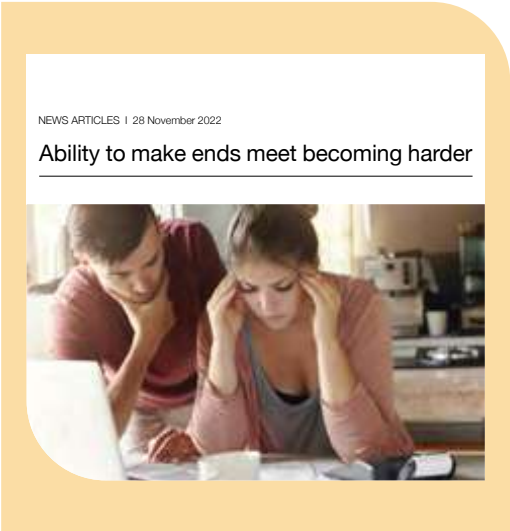
Loneliness is defined as a subjective emotional state, characterized by a longing for human contact. It is the discrepancy between a desired and actual level of contact (Perlman and Peplau, 1982; Weiss, 1973). Loneliness is related to the subjective sense of lack of social connections (Leigh-Hunt et al., 2017). People who feel lonely tend to have not just fewer meaningful relationships, but also lower frequency of contacts (OECD, 2021ab). The high (and growing) prevalence of loneliness is indicative of low (and diminishing) stocks of social capital. In this section, we present the principal facts about loneliness, with a special focus on the unequal distribution of loneliness, and the leading analyses of the impacts of loneliness. Isolation due to the COVID-19 pandemic contributed to an increase in reported loneliness.

Today, in a world where remote work and hybrid work is becoming the new normal, the prevalence of loneliness remains high (see Box 3). Furthermore, demographic trends are expected to aggravate the loneliness problem... unless targeted action is taken. Section 4 discusses the need for targeted action.

3.1 Loneliness in numbers

International surveys and online media data have yielded evidence on the growing trend of loneliness in OECD countries and more recently developing countries as well (Banerjee et al, 2023). There is a sizeable variation in the extent to which people experience loneliness. Whilst loneliness has been found to cut across all ranks within organizations, it has also been found to affect disenfranchised groups more. The spatial distribution of loneliness is thus uneven.

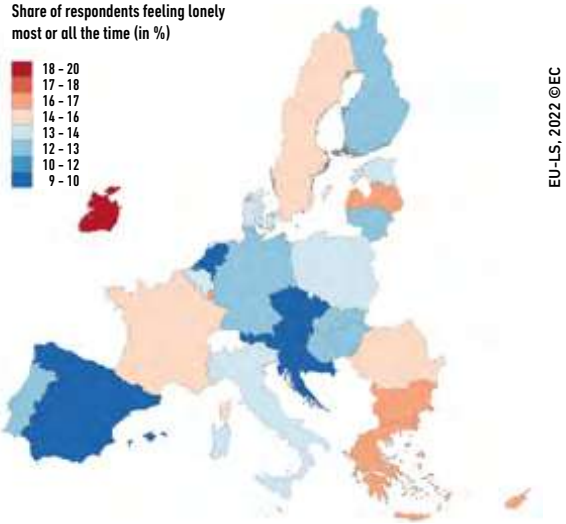
Examples of media coverage on loneliness topic



Prevalence of loneliness in the European OECD countries

In 2021, 1 in 5 people reported feeling lonely in 22 European OECD countries (OECD, 2021a). More recently, the first ever EU-wide survey on loneliness, EU-LS 2022, reveals that on average, 13% of respondents reported feeling lonely most or all the time in the past four weeks, while 35% reported experiencing loneliness at least some of the time. Loneliness prevalence, however, differs across countries as shown in ***Figure 9*** (European Commission, n/d).

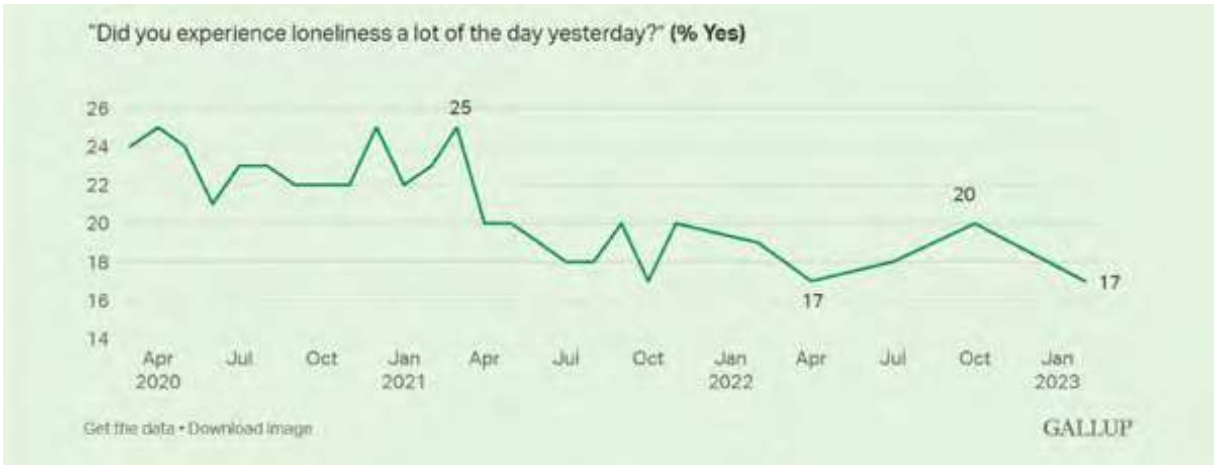
Figure 9. Share of respondents feeling lonely mosy or all of the time over the past four weeks preceding the survey EU-LS 2022 (in%)



Prevalence of loneliness in the US

Similarly in the US, one in 5 people aged 55 and over reported feeling lonely during more than half of the week (New York Post, 2022). In 2023, 17% of U.S. adults report that they felt loneliness 'a lot of the day yesterday, continuing a general decline seen since 2020 and early 2021. Despite the decrease ***(Figure 11),*** 17% represents an estimated 44 million American adults who are experiencing significant loneliness (Gallup, 2023).

Figure 10. Loneliness Among U.S. Adults, Trended (March 2020-February 2023)



BOX4. LONELINESS IN THE WORKPLACE

Feelings of loneliness in the workplace have been reported even before the Covid-19 pandemic and the rise of remote work. Even though, the 'loneliness pandemic' appears to have peaked in 2020, this does not mean that it has disappeared today. In a recent survey conducted by the Society of Human Resource Management (SHRM, 2023), more than 38% of the surveyed US workers reported feeling loneliness at the workplace at least monthly.

The SHRM (2023) survey did not find significant differences in reports of loneliness between onsite versus remote workforces. Nevertheless, during the pandemic, remote workers were more inclined to indicate that their relationships with others lacked depth or meaning. In a survey conducted by Cigna (2020) in the same country, more than half (54%) of remote workers reported always or sometimes feeling this way, compared to 45% of those who work in an in-person office environment. According to the same survey, remote workers were slightly more likely to express feelings of loneliness (57% vs. 52% of non-remote workers), a sense of lack of companionship (53% vs. 49% of non-remote workers) and a belief that they had no one to turn to (46% vs. 43% of non-remote workers).

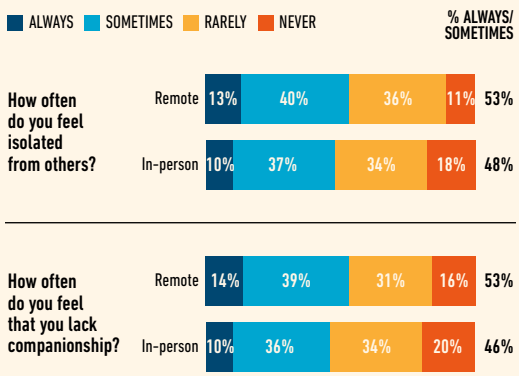
SHRM (2023) found clear generational patterns in loneliness at the workplace, with higher percentage of Millennials (17%) and members of Generation Z (24%) reported feeling lonely at least weekly compared to workers from older generations (13%). In terms of positions / level, entry-level employees reported the highest average loneliness score, which is 48.3, followed by senior executives (46.6). Non-C-suite executives were the least lonely (45) (Cigna, 2020).

Additionally, and according to the research conducted by Cigna (2020) in the United States, 37% of Hispanic workers and 30% of African American workers said they felt abandoned by coworkers when under pressure at work. By contrast, 25% of white workers felt that way. Similarly, 39% of Hispanic workers and 30% of African American workers felt alienated from coworkers, compared to 26% for white workers.

Research has shown correlations between employee loneliness and several factors. For instance, lonely employees demonstrate a decrease in creativity (Peng et al., 2017), in-role and extra-role performance (Lam and Lau, 2012; Ozcelik and Barsade, 2018), affective organizational commitment (Ozcelik and Barsade, 2018), they also show increase in job burnout (Omar et al., 2020; Anand and Mishra, 2021), intention to leave (Chen et al., 2016), and unethical behavior (Gentina et al., 2018). Moreover, workplace loneliness has shown to decrease employee's engagement with their jobs and organizational commitment (Jung et al., 2021).

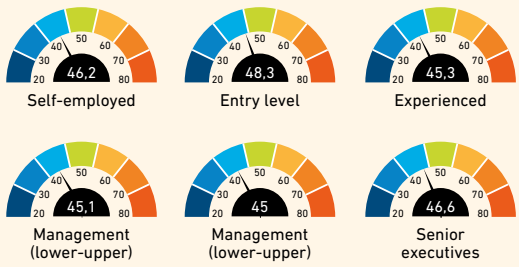
REMOTE VS. IN-PERSON - NEGATIVE STATEMENTS

Remote workers are more likely to feel o-isolated



POSITION/LEVEL

Entry level and senior executives are loneliest by position



Uneven distribution of feeling lonely

Loneliness is most prevalent among adolescents and young adults, among the elderly, and people of lower socio-economic status (OECD, 2021b).

Spatial concentration of loneliness

Chronic loneliness and feelings of neglect often go together, creating 'pockets of emotional despair'. Typically located in post-industrial areas in the East and West midlands and north of England, as well as coastal areas in the Southeast, neighborhoods identified as 'left behind' rank within the top 10 per cent of most deprived areas according to the Index of Multiple Deprivation and the top 10 per cent of areas most in need as measured by the Community Needs Index, meaning they lack places and spaces to meet, digital connectivity and transport and an active and engaged community (All-Party Parliamentary Group for 'left behind' neighbourhoods, 2022). People living in 'left behind' neighborhoods have worse social and economic outcomes than people living in other, similarly deprived areas, experiencing higher unemployment, poor health outcomes, and lower levels of education attainment. This suggests the vital importance of accessible social infrastructure to the health and wellbeing of local communities (All-Party Parliamentary Group for 'left behind' neighbourhoods, 2022). Similarly, in France, many regions have witnessed a deterioration of social bonds and a rise of discontent, fueling the Yellow Vests movement. The loss of places of socialization contributes to the "territorial malaise" in areas where the Yellow Vests movement took hold. Conversely, expressions of discontent were less frequent in places where there is a stronger associative life (Algan et al., 2020).

Figure 11. Pockets of "territorial malaise"

BOX 5. CHRONIC LONELINESS AND DISENFRANCHISEMENT IN FRANCE

Today in France 11 million people feel lonely (Fondation de France, 2023). The social distancing measures implemented to limit the spread of Covid-19 in 2020 significantly weakened social bonds, with many young people reporting feelings of loneliness, abandonment, and exclusion (Crédoc, 2021).

The percentage of socially isolated individuals reached an unprecedented 24% in 2021 due to pandemic-related restrictions, then dropped to 11% in January 2022 as restrictions eased. This reduction may be a short-term rebound from the hardships of the previous years or a genuine shift in people's desire for more social interaction Nevertheless, the connection between insecurity and social isolation persists, with low-income individuals experiencing higher rates of isolation (Fondation de France, 2023).

According to a recent assessment conducted by the OECD (2022), France performs relatively worse than other OECD countries in terms of social interactions and social support[1].

Moreover, there is a lot of inequality, differences between groups, and people falling under a deprivation threshold for this measure of social connections.

1 For social interactions, surveyed individuals indicated time spent interacting with friends and family as primary activity (hours per week). Share of social support indicates the share of people who report having no friends or relatives whom they can count on in times of trouble.

3.2 Why does loneliness matter?

The academic research on chronic loneliness has highlighted a number of relations between chronic loneliness and outcomes that matter for the well-being of people and the country where they live. Some of these findings are highlighted below.

Chronic loneliness matters for everyday decision-making (impedes cognitive function)

Chronic loneliness is a distinct form of scarcity: Loneliness reflects social scarcity, that is, scarcity in terms of social capital. Researchers have found that scarcity, be it social and/or income scarcity, consumes mental bandwidth (Mullainathan and Shafir, 2013). Scarcity leads people to 'tunnel' or overfocus on interactions with others or on insecurity. And this can be costly ('tunneling tax'). To illustrate, lonely people can be so much focused on managing their loneliness that they perform badly in say casual conversations. They would be better off focusing less on their social need. However, the social scarcity prevents that. It draws the mind of the lonely to just the place they need to avoid. This can make people with chronic loneliness less forward looking, less controlled. The effects are large, the equivalent of a sleepless night.

Chronic loneliness matters for subjective wellbeing

Social connections have been found to directly matter for our happiness and health. Social connections are instrumental to prosperity and material wellbeing (Kahneman and Deaton, 2010). Despite the clear link between social connections and (subjective) well-being, more research is needed to understand the causal mechanisms and effect sizes.

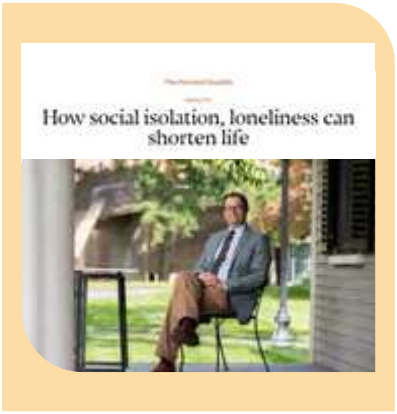
Chronic loneliness causes mental illnesses

The chronically loneliness correlates with rates of physical illness, depression, anxiety, drug abuse and addiction. Feelings of loneliness are strong predictors of depression (Hawkley & Cacioppo, 2010) and compete with smoking as the leading risk factor for premature deaths (Berkmann & Glass, 2000). Long before COVID-19, loneliness and social exclusion have been growing health issues, with real consequences – both mental and physical. Loneliness increases mortality risk by 30% - the same as smoking 15 cigarettes per day (Holt-Lunstad et al., 2015).

According to the French Ministry of Health and Prevention (March 2023 report), with more than €23 billion a year in total, mental suffering and psychiatric illnesses related care are the largest item of expenditure for the 'Assurance Maladie', ahead of cancer and cardiovascular diseases. They represent an overall cost of more than €100 billion, including loss of income and well-being. While the prevalence of mental suffering seems to have mostly affected young adults in recent years, other populations such as women, unemployed people or those living alone also experience an increased risk. In low- and middle-income countries, it is the poor and the elderly who appear to be particularly vulnerable to poor mental health, cumulating a lack of social support, poor physical health, and a lack of resources (Banerjee et al., 2023). Within a given location, those with the lowest incomes are typically 1.5 to 3 times more likely than the rich to experience depression or anxiety.

Mental health research from Deloitte (2022) has revealed that the cost to employers of poor mental health has increased, to up to £56bn in 2020-21 compared to £45bn in 2019. The overall increase in total costs is due to higher staff turnover. Deloitte's survey (2002) found that 28% of UK employees either left their job in 2021 or they are planning to leave it in 2022, with 61% of respondents saying this was due to poor mental health. Young people (18-29 years old) were found to be most likely to have moved jobs or be considering a job move. One in five (21%) young people surveyed said they were planning to leave and one in four (24%) said they had intentionally left their job in the past 12 months. Of those who had intentionally left or planned to leave their job, two in three (65%) said this decision was driven by poor mental health. In sum, neglecting the problems of chronic loneliness and economic insecurity is costly to businesses and society at large.

Examples of media coverage on loneliness topic



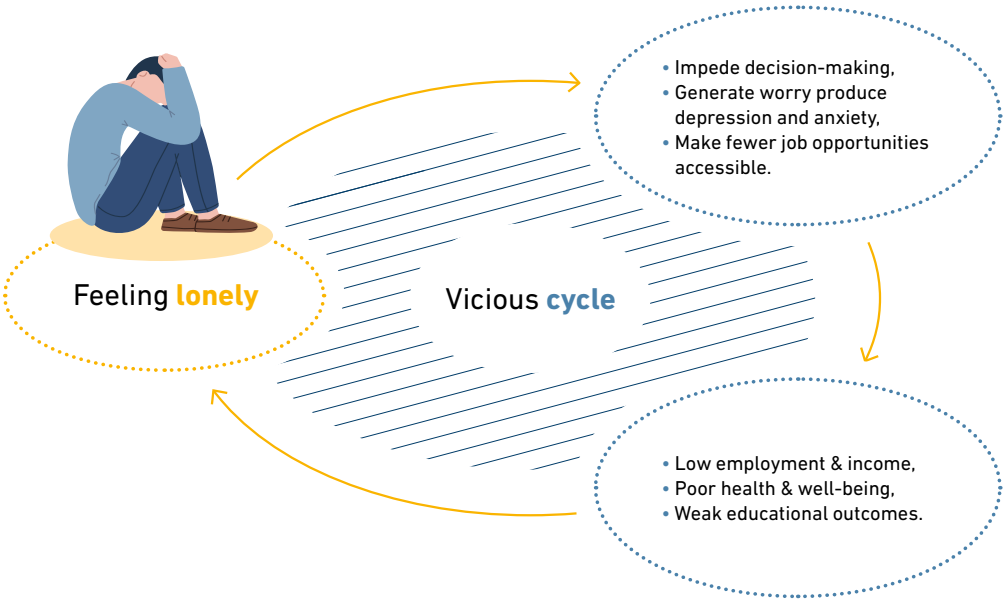
Chronic loneliness is a driver of political polarization

Lonely adults are less likely to vote. Loneliness is contributing to an increasingly tribal politics. The lack of social cohesion breeds resentment, discontent, and anger. Reducing loneliness and social isolation – across and between communities- is one way to reconnect people, to reestablish a meaningful sense of belonging and worth, and in so doing, provide an antidote to hate (Strongin, 2020).

The effects of loneliness perpetuate loneliness

Chronic loneliness leads to outcomes that perpetuate loneliness. Loneliness produces behaviors that contribute to the maintenance of loneliness. This gives rise to what we refer to as the trap of loneliness **(see Figure 12).**

Figure 12. The loneliness trap



IN SUMMARY

1 in 5 people feel lonely.

Loneliness deteriorates social, health and economic outcomes. These outcomes further compound loneliness and social isolation, leaving people trapped in a vicious cycle.

The prevalence of loneliness is unequal.

Loneliness disproportionately affects the young and the old, and the poor and other disenfranchised communities.

People who feel lonely are also concentrated in certain neighborhoods.

There exist territorial pockets, where this problem is much more pronounced.

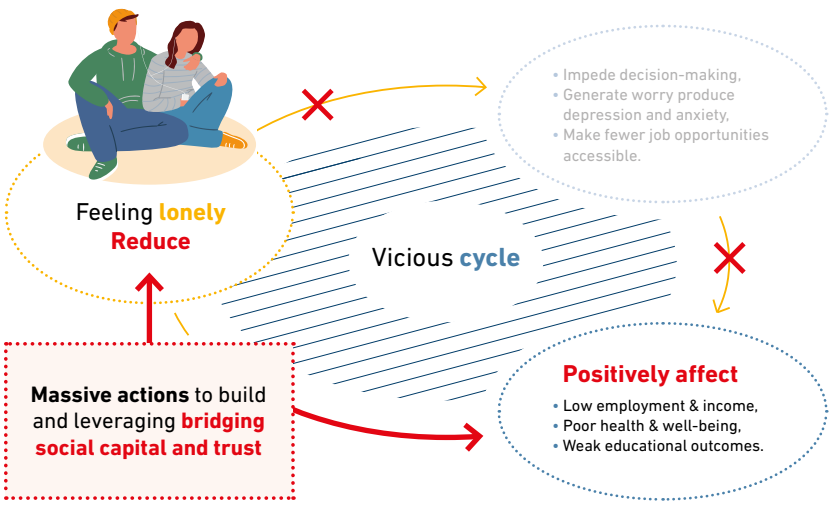
04 Call to action

The looming loneliness crisis suggests that the stock of bridging social capital and trust in many societies today is alarmingly low, and without targeted action, at risk of further decline. The societal costs of neglecting bridging social capital and trust are real – This has slowed down our economy, undermined our democracy, exacerbated fractions, fueled polarization, lowered subjective well-being, diminished employee engagement, and even costed lives. And, more speculatively, this may well pose a huge barrier to our ability to collectively act against climate change (IPCC, 2023).

Despite the societal and economic importance of bridging social capital and trust, these assets commonly fall outside the purview of our leaders. Many leaders across the globe are still primarily focused on assessing measures of economic production, economic growth, inflation, and unemployment to determine whether the citizens and communities they serve are thriving. However, these measures do not fully capture the well-being of, and the value created by individuals and communities. They fail to reflect the non-economic aspects of life, including the bridging social capital and trust that are indispensable (as discussed in the previous sections) to social progress and wellbeing.

Loneliness produces behaviors that contribute to the maintenance of loneliness. One important implication is that without targeted efforts, people will most likely remain trapped, trapped in the vicious cycle of social isolation and despair.

Figure 13. The importance of bridging social capital and trust to break up the vicious cycle



That is why we see an urgent need for actions that seek to strengthen and grow bridging social capital and trust in society. A nation-wide strategy centered on "bridging social capital and trust" holds great promise: Such a strategy could help us build a future that is more inclusive (less polarized and fractionalized), where social support is accessible to all and valorized, and impersonal trust is strong. There is voluminous evidence (correlational and causal) documenting the relationship between inclusion, social support, and impersonal trust, respectively, and economic outcomes, such as economic efficiency, governance quality, economic growth, and investment.

Furthermore, a society that is rich in bridging social capital is also more likely to promote prosperity and social justice.

- **Refocus:** We would need to refocus government and business action on a metric of economic growth and social progress that reflects the value of bridging social capital and trust, with a special focus on the uneven distribution of bridging social capital and trust.

- **Redesign:** We would need to find and test new ways to build up the stock of bridging social capital and trust of individuals, inside businesses, and of communities. To this effect, we could attempt to harness bridging social capital and trust as drivers of innovation: designing new programs (educational interventions, for example), developing new services (platforms to enable access to local household services, for example), creating new jobs (in care, for example), and/or designing new spaces/organizations ('tiers lieux', for example) in ways that explicitly help build up our stock of bridging social capital and trust. Bridging social capital and community-level trust becomes an important source of competitive, environmental, and social advantage.

In the remainder of this subsection, we begin to sketch (at a high level) what such a strategy would look like.

- **Realign:** We would need to realign the skills that we teach to our children or students with those that they need to be able to leverage or exploit bridging social capital and trust, be active 'prosumers' of bridging social capital and trust, be it as future intra- and entrepreneurs. More generally, we would need to invest in human capital, physical capital, and natural capital that is complementary to bridging social capital and trust.

- **Realign:** We would be strengthening the social connections between dissimilar people, and hence generalized trust, and connections between people and institutions, and hence trust in institutions based on a joint understanding of what bridging social capital and trust bring and how it can be improved.

05 Interventions targeting bridging social capital and trust

Academics have leveraged the experimental approach to design, test and evaluate the impacts of approaches designed to foster bridging social capital and trust. These experiments have proven that social connections and social capital matters, that building relationships with others not only brings satisfaction, but also, it has a real impact in many aspects of our lives and communities. A selection of these studies is described below. We selected interventions led by educational institutions, organizations (businesses), and the public sector (including local communities as well national governments), because we believe that we at HEC Paris are best positioned to inform, guide, affect actions and programs of these three organizational types.

5.1 Educational setting

Bridging social capital

In educational settings, bridging social capital through cross-generational, cross-cultural, and social class mixing interventions have demonstrated promising results. These interventions have not only improved academic outcomes but also enhanced social inclusion and positive behavior among students, while reducing impulsivity and incidents of peer violence.

Experience Corps (pioneered in the United States) connects older adults with elementary school children through a volunteer program. The program seeks to harness the time and wisdom of older adults to improve academic outcomes of elementary children. Scientific assessment (RCT) of the program's efficacy found that the program improved student results on standardized reading tests halved the number of classroom misbehavior incidents (Rebok et.al., 2004). Furthermore, the program yielded health benefits for the aging population. By promoting physical and cognitive activity in a social context, this intervention has improved the executive function and memory of the elderly by 44% and 51% relative to the control group. These improvements are crucial for maintaining the functional independence of the aging population (Carlson et. al, 2008).

Finally, the program has also been found to enhance generativity perceptions among older individuals, with a more pronounced effect observed in participants who had greater exposure to the program. This, in turn, reflects a heightened sense of concern for the future, a desire to mentor and support younger generations, and a commitment to contributing to the well-being of the next generation—an aspect consistently associated with both physical and mental health, as demonstrated by various researchers (Gruenewald et. al., 2016).

'The Peer Group Connection - High School' pairs students ninth-grade students with junior and senior peers through a mentoring program. The primary goal of this program is to facilitate a smoother transition for ninth-grade students from middle to high school. Scientific assessment of the program's efficacy found that the program improved the ninth-graders' discipline, school attachment, and their expectations of achieving a degree (Jenner et. al., 2023).

'Understanding Each Other' is a cross-cultural intervention that was tested in Turkey. The program aims to promote the social cohesion between Turkish and Syrian students in school. This intervention involved a change in curriculum featuring interactive perspective-taking activities and games designed to encourage students to contemplate and appreciate each other's viewpoints. The program improved students' perspective-taking abilities (a 0.27 standard deviation increase, relative to students in the control group), reduced impulsivity (a 0.07 standard deviation decrease relative to students in the control group), decreased the incidents of peer violence, with 1.23 fewer violent incidents in a ten-day period following the intervention. Moreover, the program fostered inclusivity and reduced ethnic segregation, with refugee children being more likely to

form friendships with Turkish classmates (7% increase) and receive emotional and academic support from host classmates (12% and 10% increase, respectively). Students also exhibited more socially positive behaviors, such as trust, reciprocity, and altruism, with a 4.4 % increase in willingness to cooperate with classmates. Additionally, the curriculum enhanced the Turkish language skills of refugee children, resulting in a 0.14 standard deviation improvement on Turkish language tests (J-PAL, 2020).

In Delhi, India, a social class mixing policy mandated elite private schools to offer free places to disadvantaged students. This intervention demonstrated that the presence of economically disadvantaged classmates positively influenced affluent students, making them more prosocial, generous, and egalitarian, leading to a 55% increase in volunteering and a 45% increase in sharing with poor recipients compared to control classrooms. Additionally, rich students were less likely to discriminate against poor classmates and more willing to socialize with them, reducing discrimination by 12%. Moreover, there were mixed but overall modest impacts on affluent student's academic achievement (Rao, 2019).

5.2 Organizational setting

Bridging social capital

In Uganda, the "Meet Your Future" program addressed youth unemployment by connecting vocational training students with successful vocational training graduates as mentors. The mentoring program had significant positive impacts: mentored students were more likely to enter the job market, lowered their wage expectations, and had shorter unemployment periods. They also demonstrated increased willingness to accept positions and earned 18% more than non-mentored students one year after graduation. The program's low cost and positive outcomes suggest it can complement vocational training in addressing youth unemployment and correcting labor market expectations (Alfonsi, Namubiru & Spaziani, 2022).

The research conducted by Burt & Ronchi (2007) explores the benefits of teaching executives about the network structure of social capital. The study found that executives who were educated in understanding social capital's network structure showed significant performance improvements compared to their untrained peers. Program graduates were 36–42% more likely to receive top performance evaluations, 43–72% more likely to be promoted (with effects lasting up to 2 years after the program), and 42–74% more likely to be retained by their companies. Active participation in the program was crucial, as executives who were passive spectators did not exhibit these advantages. This research underscores the importance of social capital and how educating executives about it can lead to enhanced performance and career advancement.

Trust

Diversity in societies can spur more innovation, creativity, and economic growth, but some argue that it can also lead to less social trust and more tension and conflicts. Therefore, is crucial to understand the effects of diversity on trust. Research conducted by Finseraas (2019) employed a unique field experiment involving soldiers in the Norwegian Armed Forces, where individuals are randomly assigned to live with roommates from either the majority or minority ethnic group. The researchers find that close personal contact with minority individuals increases trust among the majority group members, as evidenced by their willingness to send money to someone with a minority name in a trust game. This finding suggests that fostering social contact between different ethnic groups may help mitigate tensions and build trust.

An investigation led by Zak (2017) found that the key to employee engagement is building a culture of trust. By measuring people's oxytocin levels in response to various situations—first in the lab and later in the workplace—Zak (2017) identified eight key management behaviors that stimulate oxytocin production and generate trust within organizations: (1) Recognize excellence. (2) Induce "challenge stress." (3) Give people discretion in how they do their work. (4) Enable job crafting. (5) Share information broadly. (6) Intentionally build relationships. (7) Facilitate whole-person growth. (8) Show vulnerability. The researcher concluded that that managers have the capacity to foster trust by establishing a well-defined organizational direction, providing individuals with the necessary resources to execute tasks, and subsequently affording them the autonomy to operate independently. This often results in higher productivity, increased energy, better collaboration, and greater employee loyalty, among other benefits.

Psychological safety is a shared belief that a team is safe for interpersonal risk taking, it is an important driver of team's performance and organizations are keen to foster it. However, there is little causal evidence on what drives it and how. In their paper, Castro, Englmaier & Guadalupe (2022) implemented a RCT with more than 1000 teams (over 7000 employees) in a global healthcare company to evaluate the impact of

individualized attention of the manager to each team member as a driver of psychological safety, by encouraging them to hold individual meetings. Results showed that the behavior of managers changed as their increased the number of meetings. Moreover, psychological safety also increased as sis the relationship to and perceptions of the manager, especially, when the meetings focused on the employee's individual needs.

5.3 Public sector setting

Bridging social capital

Bridging social capital through interactions across social classes and through programs that connect individuals with diverse experiences and educational backgrounds has demonstrated positive effects on employment and wages, suggesting the potential to alleviate poverty:

In the United States, the Moving to Opportunity Program, a well-known intervention that relocated low-income families to neighborhoods with lower poverty levels, yielded interesting results. While adults did not experience economic improvements in terms of education, employment, or income with increased time spent in the new neighborhoods, they did report better overall health and greater happiness. In contrast, children who moved before adolescence exhibited notable positive outcomes. By their mid-twenties, they had incomes that were 31% higher than the control group. Additionally, these children were less likely to become single parents, more likely to attend college, and ended up residing in better neighborhoods as adults. This suggests that housing mobility might be an effective long-term anti-poverty strategy, particularly for households with children under the age of 13 (J-PAL, 2015).

The Moving to Opportunity Program has also found that low-income families who relocated to neighborhoods with lower poverty rates reported enhanced subjective well-being. The new neighborhoods were safer, and the residents felt more secure and happier. For adults, moving to a low-poverty area resulted in a 50% reduction in the likelihood of developing diabetes and approximately a 40% decrease in the rate of extreme obesity. Additionally, mental health improved for both adults and female children, who were less likely to experience psychological distress, including depression and anxiety, in their new neighborhood (J-PAL, 2015).

Connections and interactions among individuals and communities are crucial for preventing and controlling violence and crime. Interacting with others is key to developing trust and becoming more willing to intervene or cooperate when social order is threatened, as the following examples demonstrate.

In Colombia, the construction of cable car transportation systems, aimed at improving the integration of isolated low-income neighborhoods with the city's urban center, along with infrastructure improvements designed to encourage greater social interaction within these marginalized communities—such as the establishment of parks, police stations, and improved public lighting—has shown a 66% reduction in homicide rates and a 75% decrease in reports of violence. By improving public infrastructure, these initiatives create more opportunities for community members to interact, fostering trust among neighbors and a greater willingness to intervene when social order is threatened (Cerdá et. al., 2012).

In the United States, the implementation of a community-oriented policing (COP), involving non-enforcement interactions between neighbors and uniformed police officers, has evidenced that even a single instance of positive interaction with a uniformed police officer can significantly enhance public attitudes toward police (by 7%), including perceptions of legitimacy and willingness to cooperate (by 9.5%), at least in the short term (Peyton, Siera-Arévalo & Rand, 2019).

Trust

The Wageningen Trust Experiment was a RCT on welfare conducted in the Netherlands and aimed to explore alternative approaches to supporting individuals in social assistance or welfare. The experiment included 410 participants, representing over 50% of the city's social assistance beneficiaries. It featured four distinct treatments: 1) self-reliance and exemption from obligations, 2) intensive mediation or tailored support, 3) earnings release with an additional 50% of earnings, and 4) a control group.

Results showed positive effects on transitioning to full-time paid work compared to non-participating beneficiaries but not significantly different from the randomized control group. Other outcomes, including well-being, health, freedom of choice, social participation, and self-reliance, yielded mixed results. Some positive treatment effects were observed in subjective health and mental health. However, there was a negative effect on the number of hours spent on volunteering and informal care, primarily due to increased hours in paid work. Overall, the experiment contributed to narrowing the distance to the labor market and increasing social participation (Muffels, Blom-Stam & Van Wanrooij, 2020).

BOX 6. RCTS AND LONELINESS

RCT 1 Loneliness and social isolation are among the most robust known risk factors for poor health and accelerated mortality. The experimental study conducted by Lindsay et al. (2019) explores the impact of a 2-week smartphone-based mindfulness program, emphasizing acceptance, in mitigating loneliness and increasing social interactions. Acceptance is a core mindfulness element, that fosters openness, receptivity, and equanimity towards present experiences, encouraging individuals to accept their experiences without judgment or resistance, which can help them manage and navigate challenging emotions in a more constructive way.

Participants in the treatment group trained in both attention monitoring (practice of being aware of one's present-moment experiences, thoughts, and emotions) and acceptance reported significantly reduced loneliness and increased social interactions compared to a monitoring-only group and an active control group.

The results suggest that acceptance training is a crucial component of mindfulness interventions, as it reduces social distress, facilitates flexible responses to social interactions, and encourages greater social engagement. This study highlights the potential of mindfulness interventions to address both loneliness and isolation, ultimately promoting better health and well-being.

RCT 2 The mental health of the elderly in low- and middle-income countries (LMICs) has been an underemphasized area in policy and research. The study combines data from the health and retirement family of surveys across seven LMICs and the United States, revealing that depressive symptoms are more prevalent in LMICs and increase significantly with age. Depressive symptoms are linked to a greater decline in functional abilities and an increased risk of mortality and are highly associated with loneliness in both rich and poor countries.

The study focuses on a panel survey conducted in Tamil Nadu, highlighting the prominent correlations of social isolation, poverty, and health challenges with depression. It proposes potential policy interventions across these domains drawing from results of randomized control trials in the Tamil Nadu sample. Among these policies, the authors mention targeted interventions to reduce loneliness and strengthening social connections with family and friends. Creating opportunities for socialization through senior citizen clubs and activities can be effective, as well as providing access to communication tools like phones to foster interactions.

Concluding that, combining efforts to boost the supply of social interactions and the demand for them, along with mental health support, can be beneficial (Banerjee et al., 2022).

06 Future research agenda

Collaborative approach

With our research, we would like to partner with schools, organizations (large businesses and SMEs; social enterprises), and public sector actors. This focus is motivated by our strengths: our existing contacts (some have already expressed interest to collaborate with us), our unique expertise (at the intersection of behavioral economics, strategy and organizational economics), our resources (opportunity to mobilize and connect business school professors and researchers to the different research projects), and our infrastructure (the opportunity to leverage the Impact Company Lab, the Inclusive Economy Centre, and the Centre for Entrepreneurship and Innovation at HEC Paris).

Linking our research initiative to the call of action

For decision-makers to be able to step up and respond to our call of action, more research is needed. Below, we highlight the major gaps in the literature that we wish to address going forward.

- **Refocus:** We need better measures of bridging social capital and trust, at higher frequencies and with higher geographic coverage, based on more representative samples, to analyze how bridging social capital and trust are affected by shocks, how they can be preserved and how relevant polices can restore and expand them (refocus). Prior research has measured bridging social capital and trust at individual level mainly and aggregated these measures to represent value at a higher level. However, more research should be done on measuring (and tracking) bridging social capital and trust in schools, businesses, and communities. These are the levels of organizing especially well-positioned to help rebuild bridging social capital and trust, and at the same time where the value-added of bridging social capital and trust is immediate.

- **Redesign:** The problems of loneliness and social isolation present serious challenges (and costs) to work and well-being. Not surprisingly, many (social) enterprises and community initiatives have already developed innovative business and organizing models to address these problems, directly or indirectly. However, without a reliable measurement of the 'social' value that they produce, these initiatives remain fragile. More research should be done to measure and valorize the bridging social capital and trust that such ventures create (positive externalities). Such data would allow these ventures to mobilize patterns willing and able to pay for these benefits, rendering their own business model more sustainable.

- **Realign:** More research should be done to understand which skills or resources are necessary for our economy to better leverage our stock of bridging social capital and trust. Today, we lack an empirical and deep theoretical understanding of the factors that allow organizations and communities to increase the returns to bridging social capital and trust. Such insights would allow organizations and communities to strengthen their competitive advantage and resilience.

- **Reconnect:** In this report we have reviewed several interventions designed to build bridging social capital and trust. However, we lack evidence on what organizations and communities can do. We need more large-scale ambitious experimentation.

Three research foci

We identify three strands of scientific research that we wish to develop in parallel (as they are mutually reinforcing). Below we present a selection of key research questions and approaches for each.

1. Educational setting

We wish to collaborate with primary schools to assess the stock of bridging social capital and trust at the school-level (baseline) and develop and test the efficacy of low-cost and scalable interventions designed to foster bridging social capital and trust. We wish to evaluate whether such interventions can improve student achievement and school performance. We would also like to use HEC Paris as a test-case. In partnership with HEC Talent and colleagues at the Management and Human resources department, we wish to do research on which skills and capabilities should we teach at HEC Paris to make our students effective prosumers of bridging social capital and trust.

2. Business and entrepreneurship setting

We wish to collaborate with a series of social enterprises, large-scale associations, and community initiatives, like Action Tank Social Business, Programme Malin, Croix Rouge française, Lulu dans ma rue/Entourage, Alenvi, Kawaa, to map and monetize the 'social' value streams they create, and potentially stage interventions designed to amplify these impacts. These ventures have already expressed interest to work with us.

We also wish to approach Orange, Maif, Aema (Macif), Groupe La Poste, Crédit Mutuel and ask whether they would be interested in partnering with us, allowing us to leverage the high frequency data to identify pockets of high loneliness and social exclusion in France. Such information could also allow these companies to develop and propose targeted support services. Finally, we wish to collaborate with BPI France to launch a survey for their SME community on the topic of loneliness at work, bridging social capital and trust.

3. Public sector setting

We would like to develop an observatory on bridging social capital and trust in communities in France (first use case) and explore how such an observatory should be adapted to other country settings. In the Table 1 below, we list some of the community-level measures that a dashboard managed by the observatory might include. We would also like to study how bridging social capital and trust, and its geographic distribution, interacts with the concept of a just ecological transition. To make progress, we will need to deepen our theoretical understanding bridging social capital and trust, and link this with theories of collective action in the face of uncertainty. Finally, we would like to approach a particular division of government (policy, health, ...) in France to explore interests to collaborate, test low-cost interventions designed to rebuild bridging social capital and trust.

Table 1. Illustration of measure of bridging social capital and trust at the community level

Measure	Description	Source
Racial similarity of next-door neighbors	In order to measure segregation in a new way and overcome shortcomings of traditional segregations indices, researchers used census data to develop a new measure of segregation based on the racial similarity of next-door neighbors	**Logan & Parman (2014)**
Dissimilarity Index: distribution of students across schools by socio-economic status and ability	Segregation usually involves multiple indicators. One way to analyze school segregation is to see the extent to which students are evenly (or unevely) distributed across schools, considering socio economic status and ability	**OECD (2019b)**
Share o police staff that lives in the local community / cities they serve	This data is mainly available at a national level. For example, census of state and local law enforcement agencies done periodically by the US government, provides information about the demographics of law enforcement agencies	**U.S. Department of Justice & Equal Employment Opportunity Commission (2016)**
Percentage share of NEETS	Youth not in employment, education, or training. This measurement is calculated continuously by international organizations such as ILO, UN, OECD.	**OECD (2023)**
Prison population rate	The index is based on the total number of persons – and juveniles aged under 18 – brought into formal contact with the police and/ or criminal justice system, all crimes taken together, per 100 000 population. Data may include persons suspected, or arrested or cautioned	**OECD (2016)**
Unemployment rate	The unemployed are people of working age who are without work, are available for work, and have taken specific steps to find work. This indicator is measured in numbers of unemployed people as a percentage of the labour force and it is seasonally adjusted. The labour force is defined as the total number of unemployed people plus those in employment.	**OECD Data (n/d.a)**
Density of housing overburden rate	Households where total housing costs represent more than 40% of the disposable income)	**European Commission (2019)**
Number of stores opening and closures by year	This data is primary available at a national or local level, mostly reported by consultants, local data companies or research firms. The results provide quantification of the number of stores opened and closed in a certain period and in a certain location.	**Price Waterhouse Cooper (n/d.)**
Uptake of ICT: Access to internet	Internet access is defined as the percentage of households who reported that they had access to the Internet. In almost all cases this access is via a personal computer either using a dial-up, ADSL or cable broadband access. This indicator is measured in percentage of all households	**OECD Data (n/d.b)**

Références

REFERENCES

- **Acemoglu, D., J. Robinson and S. Johnson (2001). "The Colonial origins of comparative development: An empirical investigation".** *The American Economic Review, Vol. 91, pp. 1369-1401.*
- **Adger, W. N. (2009). Social Capital, Collective Action, and Adaptation to Climate Change.** *Economic Geography, 79(4), 387-404.* https://doi.org/10.1111/j.1944-8287.2003.tb00220.x
- **Agarwala, M., & Zenghelis, D. (2021). Social Capital and the Changing Wealth of Nations.** *In World Bank Group eLibrary.* https://doi.org/10.1596/978-1-4648-1590-4_ch15
- **Alfonsi, L., Namubiru, M., & Spaziani, S. (2022). Meet Your Future: Experimental Evidence on the Labor Market Effects of Mentors** *Working Paper.*
- **Algan, Y., & Cahuc, P. (2010). Inherited Trust and Growth.** *American Economic Review, 100(5), 2060-2092.* https://doi.org/10.1257/aer.100.5.2060
- **Algan, Y. & P. Cahuc (2014). "Trust, growth and well-being: New evidence and policy implications".** *In Aghion, P. and S. Durlauf (eds.). Handbook of Economic Growth. Vol. 2. Elsevier, North Holland, Amsterdam, pp. 49-120*
- **Algan, Y. (2018). Trust and Social Capital. In For Good Measure: Advancing Research on Well-being Metrics Beyond GDP** *(pp. 283-320). Éditions OCDE. ISBN: 9789264307278.*
- **Algan, Y., Malgouyres, C., & Senik, C. (2020). Territories, Well-being and Public Policy** *Les notes du conseil d'analyse économique, no. 55.*
- **All-Party Parliamentary Group for 'left behind' neighbourhoods. (2022).** *Residents in "left behind" neighbourhoods uniquely vulnerable to rising cost of living.* **Retrieved from:** https://www.appg-leftbehindneighbourhoods.org.uk/news/residents-in-left-behind-neighbourhoods-uniquely-vulnerable-to-rising-cost-of-living/
- **Anand P., Mishra S. K. (2021). Linking core self-evaluation and emotional exhaustion with workplace loneliness: does high LMX make the consequence worse?** *Int. J. Hum. Resour. Manag. 32, 2124–2149. doi: 10.1080/09585192.2019.1570308*
- **Arrow, K.J. (1972). "Gifts and Exchanges".** *Philosophy & Public Affairs. Vol. 1(4), pp. 343-362.*
- **Bailey, M., Cao, R., Kuchler, T., Stroebel, J., & Wong, A. (2018). Social Connectedness: Measurement, Determinants, and Effects.** *Journal of Economic Perspectives, 32(3), 259-280.* https://doi.org/10.1257/jep.32.3.259
- **Bandiera, O., Barankay, I., & Rasul, I. (2008). Social capital in the workplace: Evidence on its formation and consequences.** *Labour Economics, 15(4), 724-748.* https://doi.org/10.1016/j.labeco.2007.07.006
- **Banerjee, A., Duflo, E., Grela, E., McKelway, M., Schilbach, F., Sharma, G., & Vaidyanathan, G. (2022). "Depression and Loneliness Among the Elderly Poor".** *Working Paper No. 30330. National Bureau of Economic Research.* **Retrieved from:** https://www.nber.org/papers/w30330
- **Banerjee, A., Duflo, E., Grela, E., McKelway, M., Schilbach, F., Sharma, G., & Vaidyanathan, G. (2023). "Depression and Loneliness among the Elderly in Low- and Middle-Income Countries".** *Journal of Economic Perspectives, 37(2), 179-202.*
- **Banfield, E. (1958). "The Moral Basis of a Backward Society".** *Free Press, New York*
- **Berkman L., Glass T. (2000). Social integration, social networks, social support, and health. In: Berkman L, Kawachi I, editors. "Social Epidemiology".** *New York, NY: Oxford University Press.*
- **Beugelsdijk, S., & Smulders, S. (2003). Bridging and Bonding Social Capital: Which Type is Good for Economic Growth?** *ERSA conference papers ersa03p517, European Regional Science Association.* **Retrieved from:** https://ideas.repec.org/p/wiw/wiwrsa/ersa03p517.html

- Blind, P.K. (2007). "Building trust in government in the twenty-first century: Review of literature and emerging issues". *7th Global Forum on Reinventing Government – Building Trust in Government, pp. 26-29.*
- Burt, R. S., & Ronchi, D. (2007). Teaching executives to see social capital: Results from a field experiment. *Social Science Research, 36(3), 1156-1183.* https://doi.org/10.1016/j.ssresearch.2006.09.005
- Carlson, M. C., Saczynski, J. S., Rebok, G. W., Seeman, T., Glass, T. A., McGill, S., Tielsch, J., Frick, K. D., Hill, J., & Fried, L. P. (2008). Exploring the effects of an "everyday" activity program on executive function and memory in older adults: Experience Corps. *The Gerontologist, 48(6), 793–801.* https://doi.org/10.1093/geront/48.6.793
- Castro, S., Englmaier, F., Guadalupe, M., & Guadalupe, M. (2022). Fostering Psychological Safety in Teams: Evidence from an RCT. Available at SSRN: https://ssrn.com/abstract=4141538 or http://dx.doi.org/10.2139/ssrn.4141538
- Cerdá, M., Morenoff, J. D., Hansen, B. B., Tessari Hicks, K. J., Duque, L. F., Restrepo, A., & Diez-Roux, A. V. (2012). Reducing Violence by Transforming Neighborhoods: A Natural Experiment in Medellín, Colombia. *American Journal of Epidemiology, 175(10), 1045–1053.* https://doi.org/10.1093/aje/kwr428
- Chen J.-Q., Hou Z.-J., Li X., Lovelace K. J., Liu Y.-L., Wang Z.-L. (2016). The role of career growth in Chinese new employee's turnover process. *J. Career Dev. 43, 11–25. doi: 10.1177/0894845315571412*
- Chetty, R., Jackson, M. O., Kuchler, T., et al. (2022). Social capital I: Measurement and associations with economic mobility. *Nature, 608, 108-121.* https://doi.org/10.1038/s41586-022-04996-4
- Cigna (2020). Loneliness and the Workplace: 2020 US Report. https://www.cigna.com/static/www-cigna-com/docs/about-us/newsroom/studies-and-reports/combatting-loneliness/cigna-2020-loneliness-report.pdf
- Crédoc (2021). Loneliness in France – A social fabric weakened by the pandemic. *Report 2021.* Retrieved from: https://www.credoc.fr/publications/les-solitudes-en-france-un-tissu-social-fragilise-par-la-pandemie-rapport-2021
- Coleman, J.S. (1974). "Power and the Structure of Society". *Norton, New York.*
- Coleman, J.S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology, 94, S95–S120.* http://www.jstor.org/stable/2780243
- Coleman, J.S. (1990). "Foundations of Social Theory". *The Belknap Press of Harvard University Press, Cambridge, MA.*
- Dasgupta, P. (2005). "The economics of social capital". *Economic Record. Vol. 81, Issue supplement S1, pp. S2-S21.*
- Dasgupta, P. and I. Serageldin (eds.) (2000). Social Capital: A Multifaceted Perspective. World Bank, Washington D.C
- Deloitte (2022). Mental health and employers: The case for investment - pandemic and beyond. Retrieved from: https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/consultancy/deloitte-uk-mental-health-report-2022.pdf
- Edelman (2023). 2023 Edelman Trust Barometer: Navigating a Polarized World. Retrieved from: 2023 Edelman Trust Barometer | Edelman

- European Commission (n.d.). Loneliness prevalence in the European Union. Retrieved from: https://joint-research-centre.ec.europa.eu/scientific-activities-z/loneliness/loneliness-prevalence-eu_en
- European Commission (2019). Urban Data Platform Plus: Social Segregation. https://urban.jrc.ec.europa.eu/urban?lng=en&ctx=urban
- Finseraas, H., Hanson, T., Johnsen, Å. A., Kotsadam, A., & Torsvik, G. (2019). Trust, ethnic diversity, and personal contact: A field experiment. *Journal of Public Economics, 173, 72-84.* https://doi.org/10.1016/j.jpubeco.2019.02.002
- Fondation de France (2023). Les solitudes en France: En France, 11 million de personnes se sentent seules. Retrieved from: https://www.fondationdefrance.org/fr/les-solitudes-en-france/solitudes-2023
- Gallup (2023). Loneliness in U.S. Subsides from Pandemic High. https://news.gallup.com/poll/473057/loneliness-subsides-pandemic-high.aspx
- Gentina E., Shrum L., Lowrey T. M. (2018). Coping with loneliness through materialism: strategies matter for adolescent development of unethical behaviors. *J. Bus. Ethics 152, 103–122. doi: 10.1007/s10551-016-3329-x*
- Goddard, R. D. (2003). Relational Networks, Social Trust, and Norms: A Social Capital Perspective on Students Chances of Academic Success. *Educational Evaluation and Policy Analysis, 25(1), 59-74. American Educational Research Association.* https://www.jstor.org/stable/3699517
- Grootaert, C. (1998). Social Capital: The Missing Link? *Social Capital Initiative Working Paper No. 3, World Bank, Washington, DC.* Retrieved from: https://documents1.worldbank.org/curated/en/902971468764409654/pdf/multi0page.pdf
- Gruenewald, T. L., Tanner, E. K., Fried, L. P., Carlson, M. C., Xue, Q. L., Parisi, J. M., Rebok, G. W., Yarnell, L. M., & Seeman, T. E. (2016). The Baltimore Experience Corps Trial: Enhancing Generativity via Intergenerational Activity Engagement in Later Life. *The journals of gerontology. Series B, Psychological sciences and social sciences, 71(4), 661–670.* https://doi.org/10.1093/geronb/gbv005
- Glaeser, E.L. et al. (2004). "Do institutions cause growth?". *The Journal of Economic Growth. Vol. 9, pp. 271-303.*
- Guriev, S & Ananyev, M. (2019). Effect of Income on Trust: Evidence from the 2009 Economic Crisis in Russia. *The Economic Journal, 129(619), 1082-1118.* https://doi.org/10.1111/ecoj.12612
- Hawkley, L. C., & Cacioppo, J. T. (2010). Loneliness Matters: A Theoretical and Empirical Review of Consequences and Mechanisms. *Annals of Behavioral Medicine, 40(2), 218-227.*
- Helliwell, J. (2007). "Well-Being and Social Capital: Does Suicide pose a puzzle?". *Social Indicators Research. Vol. 81, No. 3 (May), pp. 455-496.*
- Helliwell, J. F., Huang, H., & Wang, S. (2014). Social Capital and Well-Being in Times of Crisis. *Journal of Happiness Studies, 15(1), 145-162.* https://doi.org/10.1007/s10902-013-9441-z
- Holt-Lunstad, J., Smith, T. B., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and Social Isolation as Risk Factors for Mortality: *A Meta-Analytic Review. Volume 10, Issue 2.* https://doi.org/10.1177/1745691614568352
- Intergovernmental Panel on Climate Change (IPCC) (2023). *AR6 Synthesis Report: Climate Change 2023.* Retrieved from: https://www.ipcc.ch/report/ar6/syr/

- **IPSOS (2022). Interpersonal Trust Across the World.** *A 30 Country Global Advisor Survey.* **Retrieved from: https://www.ipsos.com/sites/default/files/ct/news/documents/2022-03/Global%20Advisor%20-%20Interpersonal%20Trust%202022%20-%20Graphic%20Report_0.pdf**
- **Jackson, M. O. (2020). A typology of social capital and associated network measures.** *Social Choice and Welfare, 54, 311-336.*
- **John, P. C. (2005). The Contribution of Volunteering, Trust, and Networks to Educational Performance.** *Policy Studies Journal, 33(4), 635-656. DOI:10.1111/j.1541-0072.2005.00136.x*
- **J-PAL Policy Briefcase. (2015). Moving to Opportunity.** *Abdul Latif Jameel Poverty Action Lab. Cambridge, MA.*
- **J-PAL Policy Briefcase. (2020). Understanding Each Other: Improving Inter-Ethnic Cohesion in Schools in Turkey.** *Cambridge, MA: Abdul Latif Jameel Poverty Action Lab.*
- **Jung, H. S., Song, M. K., & Yoon, H. H. (2021). The Effects of Workplace Loneliness on Work Engagement and Organizational Commitment: Moderating Roles of Leader-Member Exchange and Coworker Exchange.** *Sustainability, 13(2), 948.* **https://doi.org/10.3390/su13020948**
- **Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being.** *Proceedings of the National Academy of Sciences of the United States of America, 107(38), 16489–16493.* **https://doi.org/10.1073/pnas.1011492107**
- **Klijn, E.H., J. Edelenbos and B. Steijn (2010). "Trust in governance networks; its impact and outcomes".** *Administration and Society. Vol. 42(2), pp. 193-221.*
- **Knack, S. and P. Keefer (1997). "Does social capital have an economic payoff? A cross-country investigation".** *The Quarterly Journal of Economics. Vol. 112(4), pp. 1252-88.*
- **Kuchler, T., & Stroebel, J. (2023). Social Interactions, Resilience, and Access to Economic Opportunity: A Research Agenda for the Field of Computational Social Science. In E. Bertoni, M. Fontana, L. Gabrielli, S. Signorelli, & M. Vespe (Eds.),** *Handbook of Computational Social Science for Policy. Springer, Cham.* **https://doi.org/10.1007/978-3-031-16624-2_21**
- **Lam L. W., Lau D. C. (2012). Feeling lonely at work: investigating the consequences of unsatisfactory workplace relationships.** *Int. J. Hum. Resour. Manag. 23, 4265–4282. doi: 10.1080/09585192.2012.665070*
- **Leigh-Hunt, N., Bagguley, D., Bash, K., Turner, V., Turnbull, S., Valtorta, N., & Caan, W. (2017). An overview of systematic reviews on the public health consequences of social isolation and loneliness.** *Public Health, 152, 157-171.* **https://doi.org/10.1016/j.puhe.2017.07.035**
- **Lindsay, E. K., Young, S., Brown, K. W., & Creswell, J. D. (2019). Mindfulness training reduces loneliness and increases social contact in a randomized controlled trial.** *Proceedings of the National Academy of Sciences, 116(9), 3488-3493.* **https://doi.org/10.1073/pnas.1813588116**
- **Lindström, M. (2005). "Social capital, the miniaturization of community and high alcohol consumption: A population-based study".** *Alcohol and Alcoholism. Vol. 40(6), pp. 556-562.*
- **Lins, K V, Servaes, H. & Tamayo, A. (2017). "Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis."** *Journal of Finance 72 (4): 1785–1824*
- **Lochner, K.A. et al. (2003). "Social capital and neighborhood mortality rates in Chicago".** *Social Science & Medicine. Vol. 56(8), pp. 1797-1805.*

- Logan, T. D., & Parman, J. M. (2014). Measuring Residential Segregation. https://economics.yale.edu/sites/default/files/segregation-measures_03-24-14.pdf
- Makridis, C. A., & Wu, C. (2021). How Social Capital Helps Communities Weather the COVID-19 Pandemic. *PloS One, 16(1), e0245135.*
- Marien, S. and M. Hooghe (2011). "Does political trust matter? An empirical investigation into the relation between political trust and support for law compliance". *The European Journal of Political Research. Vol. 50(2), pp. 267-291.*
- Ministère de la Santé et de la Prévention. (Mars 2023). Synthèse du bilan de la feuille de route - santé mentale et psychiatrie, *dossier de presse*
- Muffels, R., Blom-Stam, K., & van Wanrooij, S. (2020). Vertrouwensexperiment Wageningen: Werkt het en waarom wel of niet? *Eindverslag. Tilburg University/ReflecT/Tranzo.*
- Mullainathan, S., & Shafir, E. (2013). Scarcity: Why having too little means so much. *Times Books/Henry Holt and Co*
- Muringani, J., Fitjar, D. & Rodríguez-Pose, A. (2021). Social Capital and Economic Growth in the Regions of Europe. *CEPR Discussion Paper No. DP15871.* Retrieved from SSRN: https://ssrn.com/abstract=3805286
- New York Post (2022). Most Americans over 55 have just 4 friends – but would like more: *poll.* https://nypost.com/2022/09/07/average-americans-55-have-just-four-friends-but-would-like-more/amp/
- North, D.C. (1990), Institutions, Institutional Change and Economic Performance, *Cambridge University Press, Cambridge, MA.*
- OECD (2001). The Well-being of Nations: The Role of Human and Social Capital. *OECD Publishing, Paris.* https://doi.org/10.1787/9789264189515-en
- OECD (2011). How's Life?: Measuring Well-being. *OECD Publishing, Paris,* https://doi.org/10.1787/9789264121164-en
- OECD (2013a). "Four Interpretations of Social Capital: An Agenda for Measurement", *OECD Statistics Working Papers, No. 2013/06, OECD Publishing, Paris.* https://doi.org/10.1787/5jzbcx010wmt-en
- OECD (2013b). "Trust in government". in Government at a Glance 2013. *OECD Publishing, Paris.* https://doi.org/10.1787/gov_glance-2013-7-en
- OECD (2015). "Trust in government". in Government at a Glance 2015. *OECD Publishing, Paris.* https://doi.org/10.1787/gov_glance-2015-50-en
- OECD (2016). Society at a Glance 2016: OECD Social Indicators. *OECD Publishing, Paris.* https://doi.org/10.1787/9789264261488-en
- OECD (2017). OECD Guidelines on Measuring Trust. *OECD Publishing. Paris.* https://doi.org/10.1787/9789264278219-en
- OECD (2019a). Education at a Glance 2019: OECD Indicators. *OECD Publishing, Paris.* https://doi.org/10.1787/f8d7880d-en
- OECD (2019b). Chapter 3. The level of social and academic segregation across schools. In Balancing School Choice and Equity: An International Perspective Based on PISA. https://doi.org/10.1787/2592c974-en
- OECD (2021a). COVID-19 and Well-being: Life in the Pandemic. *OECD Publishing. [Online]. Paris.* https://doi.org/10.1787/1e1ecb53-en
- OECD (2021b). "All the lonely people: Education and loneliness", *Trends Shaping Education Spotlights, No. 23, OECD Publishing, Paris.* https://doi.org/10.1787/23ac0e25-en

- OECD (2022). How's Life? 2022 Country Profiles: France. Retrieved from: https://www.oecd.org/wise/Hows-Life-2022-country-profile-France.pdf
- OECD (2023). Youth not in employment, education or training (NEET) (indicator). *doi: 10.1787/72d1033a-en*
- OECD Data. (n/d.a). Unemployment rate. Retrieved from: https://data.oecd.org/unemp/unemployment-rate.html
- OECD Data. (n/d.b). Internet Access. Retrieved from: https://data.oecd.org/ict/internet-access.html
- Omar M. K., Aluwi A. H., Hussein N., Mohd I. H., Rusdi S. D. (2020). Workload, job control, work relationship, and work-related stress among employees in Sungai Buloh, *Malaysia. Insight J. 6, 168–176*
- Ozcelik H., Barsade S. G. (2018). No employee an island: workplace loneliness and job performance. *Acad. Manag. J. 61, 2343–2366. doi: 10.5465/amj.2015.1066*
- Peng J., Chen Y., Xia Y., Ran Y. (2017). Workplace loneliness, leader-member exchange and creativity: the cross-level moderating role of leader compassion. *Personal. Individ. Differ. 104, 510–515. doi: 10.1016/j. paid.2016.09.020*
- Perlman, D. & Peplau, L. A.(1982). Perspectives on loneliness. In L. A. Peplau and D. Perlman (Eds.), Loneliness: *A sourcebook of current theory, research and therapy (pp. 1-18). New York: John Wiley & Sons.*
- Petrou, S. and E. Kupek (2008). "Social capital and its relationship with measures of health status: Evidence from the Health Survey for England 2003". *Health Economics. Vol. 17(1), pp. 127-43.*
- Peyton, K., Sierra-Arévalo, M., & Rand, D. G. (2019). A field experiment on community policing and police legitimacy. *Proceedings of the National Academy of Sciences of the United States of America, 116(40), 19894–19898.* https://doi.org/10.1073/pnas.1910157116
- Portes, A. (2014). Downsides of Social Capital. *Proceedings of the National Academy of Sciences, 111(52), 18407-18408.* https://doi.org/10.1073/pnas.1421888112
- Poortinga, W. (2006). "Social relations or social capital? Individual and community health effects of bonding social capital". *Social Science & Medicine. Vol. 63(1), pp. 255-70.*
- Price Waterhouse Cooper [PWC]. (n.d.). Industry in focus: Store openings and closures 2022. https://www.pwc.co.uk/industries/retail-consumer/insights/store-openings-and-closures.html
- Putnam, R. D. (2000). Bowling alone: The collapse and revival of American community. *Touchstone Books/Simon & Schuster.* https://doi.org/10.1145/358916.361990
- Putnam, R. D. (2001). Social capital: Measurement and consequences. *Canadian Journal of Policy Research, 2, 41-51.*
- Ransome, Y., Valido, A. D., Espelage, D. L., Clements, G. L., Harrell, C., Eckel, C., Price, N., Nassau, R., Nyhan, K., & Taggart, T. L. (2023). A systematic review of how social connectedness impacts associations between racism and discrimination on health outcomes. *Epidemiologic reviews, mxad009. Advance online publication.* https://doi.org/10.1093/epirev/mxad009
- Rao, G. (2019). Familiarity Does Not Breed Contempt: Generosity, Discrimination, and Diversity in Delhi Schools. *American Economic Review, 109(3), 774-809. DOI: 10.1257/ aer.20180044.*
- Rebok, G. W., Carlson, M. C., Glass, T. A., McGill, S., Hill, J., Wasik, B. A., Ialongo, N., Frick, K. D., Fried, L. P., & Rasmussen, M. D. (2004). Short-term impact of Experience Corps participation on children and schools: *results from a pilot randomized trial. Journal of urban health : bulletin of the New York Academy of Medicine, 81(1), 79–93.* https://doi.org/10.1093/jurban/jth095

- **Roh, S., & Lee, J.-L. (2013). Social capital and crime:** *A cross-national multilevel study. International Journal of Law, Crime and Justice, 41(1), 58-80.* https://doi.org/10.1016/j.ijlcj.2012.11.004
- **Schober, D. J. (2022). Examining the protective effects of social capital and social support on the perpetration of violence among a national sample of adolescents.** *Injury Prevention, 28, 533-538.*
- **Scrivens, K. & C. Smith (2013). "Four interpretations of social capital: An agenda for measurement".** *OECD Statistics Working Papers. No. 2013/06. OECD Publishing, Paris.* https://doi.org/10.1787/5jzbcx010wmt-en
- **Semenza, J. C., Rubin, C. H., Falter, K. H., Selanikio, J. D., Flanders, W. D., Howe, H. L., & Wilhelm, J. L. (1996). Heat-Related Deaths during the July 1995 Heat Wave in Chicago.** *New England Journal of Medicine, 335(2), 84-90.*
- **Society of Human Resource Management (2023). The Next Pandemic: Loneliness and the Power of Casual Collisions.** Retrieved from: https://www.shrm.org/hr-today/news/hr-news/pages/workplace-loneliness-has-broad-implications-for-mental-health.aspx
- **Stiglitz, J. E., Sen, A., & Fitoussi, J.-P. (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress.** Retrieved from: https://ec.europa.eu/eurostat/documents/8131721/8131772/Stiglitz-Sen-Fitoussi-Commission-report.pdf
- **Stiglitz, J.E. and R. Arnott (1991). "Moral hazard and non-market institutions: Dysfunctional crowding out or peer monitoring".** *The American Economic Review. Vol. 81(1). pp. 179-190.*
- **Strongin, R. (2020). Election 2020: Loneliness, the Art of Healing and our Democracy.** *Harvard Advanced Leadership Initiative, Social Impact Review.* Retrieved from: https://www.sir.advancedleadership.harvard.edu/articles/election-2020-loneliness-the-art-of-healing-and-our-democracy
- **UNECE, Eurostat & OECD Task Force on Measuring Sustainable Development (2013).** *Framework and Suggested Indicators to Measure Sustainable Development.* Retrieved from: https://unece.org/fileadmin/DAM/stats/documents/ece/ces/2013/SD_framework_and_indicators_final.pdf
- **United Nations Sustainable Development Group (n/d.). Leaving no one behind.** Retrieved from: https://unsdg.un.org/fr/2030-agenda/universal-values/leave-no-one-behind
- **U.S. Department of Justice & Equal Employment Opportunity Commission. (2016). Advancing Diversity in Law Enforcement.** https://www.eeoc.gov/advancing-diversity-law-enforcement#_Toc463016098
- **Weiss, R. S. (1973). Loneliness: The experience of emotional and social isolation.** *The MIT Press.*
- **World Development Report (2002). Building Institutions for Markets.** *Oxford University Press, New York.*
- **World Health Organization (2012). Is social capital good for health? A European perspective.** *Copenhagen, WHO Regional Office for Europe.* Retrieved from: https://iris.who.int/bitstream/handle/10665/352821/9789289002738-eng.pdf?sequence=1
- **Zak, P. J. (2017). Neuroscience of Trust: Setting Leaders Up for Success.** *Harvard Business Review.* Retrieved from: https://hbr.org/webinar/2016/11/neuroscience-of-trust-setting-leaders-up-for-success
- **Zhang, S., Anderson, S. G., & Zhan, M. (2011). The Differentiated Impact of Bridging and Bonding Social Capital on Economic Well-Being: An Individual Level Perspective.** *The Journal of Sociology & Social Welfare, 38(1), Article 7.* https://doi.org/10.15453/0191-5096.3587

Produced by the S&O Inclusive Economy and the S&O Impact Company Lab of HEC Paris.
Authors and Editorial Committee:
Marieke Huysentruyt, Maria de los Angeles Gutiérrez M., Yann Algan, Bénédicte Faivre-Tavignot
Editorial Project Manager : Laurianne Thoury
Design and Content Creator: Elise Bulard - Quarante-six
Credits : iStock

HEC Paris Sustainability and Organizations Institute
1, rue de la libération – 78350 Jouy-en-Josas
so-institute@hec.fr – Tel : 01.39.67.94.20

www.hec.edu/en
Follow us on Linkedin