

The Paradox of Trust: A Micro Analysis of Social Capital and Life Satisfaction in Pakistan

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Abstract

Social capital is recognized as a catalyst of economic growth and wellbeing in economic literature. The current study examined the relationship between social capital, proxied by generalized trust, and individuals' wellbeing in the context of a developing country, specifically Pakistan. Data from the World Values Survey Wave 7 (WVS-7) are used, and an ordered probit model and Average Marginal Effects (AMEs) are employed for estimation. The main contribution and finding of this study is the identification of a “trust paradox” in Pakistan. The ordered probit model and AME results demonstrate that trusting individuals report lower life satisfaction than distrusting individuals. The study confirms that the probability of trusting individuals being in higher life satisfaction outcomes (10 and 9) is significantly lower than the probability of cautious individuals showing distrust. Based on this empirical analysis, it is concluded that in low-trust environments, trust is not rewarding and may lead to negative outcomes (i.e., lower wellbeing). In addition to the main findings, freedom and control over life, health, and financial satisfaction emerged as important predictors of life satisfaction. Moreover, the analysis of the gender variable showed that, on average, male respondents reported lower life satisfaction than their female counterparts. The study recommends devising policies to reduce the vulnerability of trusting people and ensure a safe social environment where the majority can be trusted, and where trust brings positive outcomes rather than negatively impacting one's wellbeing.

Introduction

Social capital is recognized as a catalyst of economic growth and wellbeing in economic literature. Serageldin (1999) elaborated the importance of social capital in the following words: “social capital is the glue that holds societies together, and without it there can be no economic growth or human well-being.” According to him, “social capital refers to the internal social and cultural coherence of society, the norms and values that govern interactions among people and the institutions in which they are embedded”. The foundational work in introducing the concept of social capital into economics is attributed to Coleman (1988) and Putnam et al. (1993). Coleman (1988) conceptualized social capital in terms of its functions, positing that social structures help individuals through information sharing and shared monitoring, thereby reducing transaction costs. Putnam et al. (1993), on the other hand, emphasized the positive externalities of social capital through collective civic virtues such as trust, norms, and networks.

Building on these theoretical foundations, Temple (2002) demonstrated that disparities in trust levels are significantly correlated with economic growth. In the empirical literature, social capital is measured using survey-based indicators of trust. Trust catalyzes economic transactions mainly

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by reducing threats in environments, leading to more positive investment decisions and lower transaction costs. Beyond its direct effect, social capital has an indirect effect through investment channel; high-trust environments reduce the perceived risk of contract default, thereby encouraging capital accumulation. Trust as a source of social capital has three different dimensions: the generalized or interpersonal trust, institutional trust, and thick trust (Putnam, 2000). While generalized trust refers to trust in secondary relations, thick trust refers to family links (Newton, 1997; Williams, 1988). Institutional trust refers to confidence in specific institutions like police, courts, and legislative bodies (Roth, 2022)

The literature not only discusses the role of social capital in promoting economic growth, but its importance in promoting subjective wellbeing is also highlighted. Helliwell (1996, 2003) argues that generalized trust is one of the most robust predictors of life satisfaction, often outweighing the impact of income once basic needs are met. Living in a cooperative environment and trusting the social environment reduces fear, stress, and anxiety, making individuals feel more productive and enabling them to engage in more economic activities (Helliwell & Wang, 2011). Furthermore, as articulated by Leary and Baumeister (1995), generalized trust and social belonging are fundamental to psychological wellbeing and emotional health. Similarly, Helliwell et al. (2012) in the World Happiness Report registered social trust as one of the six main pillars of life satisfaction. In addition to generalized trust as an indicator of social capital, our study uses other control variables from the literature to examine the relationship between generalized trust and life satisfaction. Ngamaba et al. (2020) synthesized the literature and concluded that financial satisfaction is one of the most important determinants of subjective wellbeing. Similarly, education and health status are the most common, agreed-upon, and fundamental variables in the life satisfaction literature. Numerous studies, such as Blanchflower and Oswald (1994), Botha (2014), Appleton and Song (2008), Easterlin (2004), Chen (2012), and Hassan et al. (2020), report that education and health are the main determinants of life satisfaction. In addition freedom of choice is also an important determinant of subjective wellbeing. Verme (2009) and Steckermeier (2021) established that freedom of choice is the most influential factor in affecting life satisfaction. Sen (1999) and Prendergast (2004) demonstrated that freedom of choice is essential for psychological flourishing and leads to social development. Blanchflower & Oswald (2019) suggest a U-shaped relationship between age and life satisfaction in the life satisfaction model and advise using an age and age-squared variable to capture the nonlinear relationship. Marital status is also a frequently used variable in empirical models presenting life satisfaction (Helliwell & Putnam, 2004; Diener et al., 2003; Blanchflower & Oswald, 2004).

Although there is extensive literature highlighting the importance of social capital and trust in explaining economic outcomes and subjective wellbeing, the following gaps remain. Most existing studies are either macro-level studies focusing on the relationship between social capital and aggregate economic outcomes or cross-country studies that are subject to heterogeneity bias. The limitations of such studies are that they ignore country-specific cultural or institutional factors. An in-depth micro analysis is therefore needed to explore country-specific dynamics of trust and life satisfaction. Moreover, the literature lacks a microanalysis of trust and life satisfaction in a developing country like Pakistan. The current study aims to analyze the relationship between trust and life satisfaction in Pakistan, a developing country.

The primary objective of this study is to perform a micro-level analysis of social capital, proxied by generalized trust, and the wellbeing of individuals living in a developing country like Pakistan. For this purpose, a conceptual model of the relationship is developed by identifying important predictors of life satisfaction as a measure of an individual's wellbeing. In addition to generalized

trust, the model includes variables such as financial satisfaction, health, education, freedom, marital status, gender, age, and age-squared. The data is gathered from World Values Survey (WVS) Wave 7. The ordered probit model and average marginal effects are employed for estimation. The integration of critical control variables and the trust variable, combined with rigorous data cleaning and econometric analysis, provides a robust framework for drawing substantive conclusions.

Conceptual Framework

The conceptual framework of this study is based on concepts derived from the Economics of Happiness and established life-satisfaction models in the field. The present study not only incorporates economic and demographic factors as predictors of life satisfaction but also the social content, represented by general trust, as a social capital factor in the life satisfaction model.

The basic model is based on three primary channels.

The Social Capital Channel

In line with Putnam et al.(1993) the social capital is captured through generalized trust. The standard theory and empirical literature suggest that trust is a catalyst of economic progress and life satisfaction, but this is mainly tested in developed nations. The current model is conceptualized to investigate the relationship between trust and life satisfaction in a developing country context, using micro-level data from Pakistan. The idea is to investigate the role of an individual's ability to trust in his life satisfaction in a developing country.

The Demographic and Economic Drivers

The framework acknowledges the basic drivers of an individual's life satisfaction and includes them in the model. The primary factors that affect life satisfaction are education and health, financial status, age, and marital status. All these are incorporated by selecting the most appropriate definition and categorization for the available data. So not only is the overall model conceptualized properly, but care is taken at the micro level of conceptualization, i.e., in choosing appropriate measures and categories for the included variables.

Control Over Life Channel

Freedom of choice is also included in the theoretical model, tracing its roots to Sen's (1999) capability approach. The relevant literature not only considers freedom as a political right but also as an important predictor of development for individuals, the economy, and society. The empirical literature testifies to the strong positive relationship between freedom of choice and individuals' life satisfaction; furthermore, it serves as a mediator in the path to life satisfaction and as a predictor of life satisfaction, along with education, and the life satisfaction model. For example, the work of Verme (2009), Inglehart et al. (2008), Hassan et al. (2021), Steckermeire (2021), Layard et al. (2013), and many others emphasizes the importance of freedom of choice in life satisfaction models.

Data and Methodology

Data and Data Cleaning

The World Values Survey (WVS) Wave 7 is considered highly suitable for this study. The WVS is a global network aimed at collecting data on values, beliefs, and subjective wellbeing taking into account the demographic and economic conditions of participants. It provides micro-level data and

distinguishes itself by offering reliable data for over 100 countries and by involving a significant number of participants. It is widely used and trusted by social scientists, especially economists, for investigating complex social and psychological phenomena, such as social capital, associated with life satisfaction, the economy, and economic development.

For in-depth analysis and country-specific insights, data for Pakistan only is acquired. The WVS specifically deliberates on sampling accuracy and ensures the representation of all provinces, rural and urban areas, and genders. The raw data initially contained 1995 observations, and after meticulous cleaning, the final dataset contained 1943 observations. The data is cleaned for empty cells, not asked entries, and missing information on the respondent's age.

Variable selection and construction

To test the trust-life satisfaction relationship, the variables were carefully selected by comparing and theoretically evaluating their fit with our study, which used multiple questions to measure the same concepts, such as subjective wellbeing and social capital, in the survey. The variables are categorized or transformed to enhance their theoretical and empirical fit to the econometric model and technique. The variable definitions and transformation are discussed as follows.

Life Satisfaction: The Dependent Variable

The dependent variable in the over model was intended to represent an individual's self-reported wellbeing. Q49 of WVS was utilized. It ask the respondents "All things considered, how satisfied are you with your life as a whole are these days?" The answer is obtained by providing options 1-10, where 1 indicates "completely dissatisfied," and 10 represents "most satisfied" or "completely satisfied." In the context of the current study, this question is more appropriate to judge the subjective wellbeing of an individual than the questions where respondents are asked to report how happy they feel, as happiness can vary based on daily circumstances and may even change several times during a day.

Independent variable and control variables

The main variable of interest in the study is generalized trust, serving as a proxy for social capital. Q57 is the relevant question in the WVS for measuring this concept. The survey asks respondents: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" The respondents had two choices 1 "most people can be trusted", 2 " need to be very careful". We have re-coded the data into a binary dummy variable to facilitate clear econometric interpretation and to follow the standard practice. In our analysis, 2 is recoded to 0, such that:

- 0 represents "need to be very careful" (Distrust/ cautiousness)
- 1 represents "most people can be trusted" (Trust)

To model the trust and life satisfaction relationship properly, several control variables named education, health, satisfaction with financial status, freedom of choice and control over life, marital status, gender, age, and age squared are included. After carefully selecting the relevant questions in WVS, the data is recoded according to needs and standard practice. The recoding details and question numbers are illustrated below.

- *Education:* To account for human capital, Q275 of the survey is used. WVS 7 used UNESCO codes and the International Standard Classification of Education (ISCED-2011) for classification. The original classification ranges from 0 to 8; ISCED 0 represents early childhood education, and ISCED 8 represents doctorate or equivalent. The data are recoded

into three distinct categories in our study: lower education comprises ISCED 0-2; middle education comprises ISCED 3 and ISCED 4; and higher education comprises ISCED 5 (short-cycle tertiary education) to ISCED 8 (Doctorate or equivalent).

- *Health*: In WVS, health status is measured by Q47. The original data measure the health variable on a scale of 1 to 5, where 1 indicates very good health, and 5 indicates very poor health. However, to facilitate interpretation, the order is reversed so that 1 indicates very poor health and 5 represents very good health. Hence, this transformation ensures that a positive coefficient indicates that good health is associated with higher life satisfaction.
- *Financial satisfaction*: In order to capture the economic and employment part of life satisfaction, the self-reported financial satisfaction of respondents (Q50) is included in the model. The variable is measured on a scale of 1 to 10. Where 1 represents completely dissatisfied, and 10 represents completely satisfied. The variable is used as it is without any recoding or re-categorization.
- *Freedom*: Freedom of choice and control over life is measured by Q48 of the WVS using a 10-point scale. However, the variable is recoded into two subgroups: 1 representing lower freedom, containing all respondents reporting freedom from 1-5, and 2 representing higher freedom, containing all respondents reporting freedom from 6-10 in the original data.
- *Gender, Age, and Marital Status*
Gender, age, and marital status are important control variables to account for individual heterogeneity in the life satisfaction model, as captured by questions 260, 262, and 263 of the WVS. The age variable didn't need any modification. In addition to the age variable, in order to capture the possible non-linear (U-shaped) relationship between age and life satisfaction, as prescribed by the literature, the age-squared variable is also included. Gender variable is recoded to a 'generally practiced' binary variable, assigning 0 to all female respondents and 1 to male respondents. In WVS, marital status is given in 6 distinct categories. However, the variable is recoded in the current study by assigning 1 to married, 2 to single, and grouping categories 3, 4, and 5 (separated, widowed, or divorced) as 3.

Econometric Specification and Technique

Given the nature of the variables identified in the theoretical model and the data gathered from the WVS for analysing the relationship between trust and life satisfaction among individuals in a developing country like Pakistan, the ordered probit model is employed to estimate the econometric model defined below.

$$y_i^* = \beta_1 \text{Trust}_i + \beta_2 \text{Freedom}_i + \beta_3 \text{EDU}_i + \beta_4 \text{Health}_i + \beta_5 \text{FinStatus}_i + \beta_6 \text{Gender}_i + \beta_7 \text{Marital_Status}_i + \beta_8 \text{Age}_i + \beta_9 \text{Age}_i^2 + \epsilon_i.$$

Where

- y_i^* is the dependent variable representing the categorical life satisfaction variable for individuals measured on 10 point scale.
- Trust_i is the variable of interest to proxy social capital and is in binary form (0=Distrust, 1=Trust)
- FinStatus_i is the self-reported financial satisfaction of individuals.
- Freedom_i represents respondent's self-reported freedom of choice and control over life
- Education, Health, marital status, gender, age and age square are important economic, psychological and demographic factors necessary to be included in the life satisfaction model.
- ϵ_i is the random error term.

Thresholds and observed Responses

The above model requires to be estimated through ordered probit model. Therefore, the relationship between the observed survey responses (y_i) and unobserved latent variable (y_i^*) is found by unknown threshold parameters, known as “cut points” (μ). As the life satisfaction variable is measured on 10-point scale, therefore there will be 9 such cut points:

$$y_i = \begin{cases} 1 & \text{if } y_i^* \leq \mu_1 \\ 2 & \text{if } y_i^* \leq \mu_2 \\ \vdots & \vdots \\ \vdots & \vdots \\ 10 & \text{if } y_i^* > \mu_9 \end{cases}$$

The ordered probit model utilizes Maximum Likelihood Estimation for estimation of coefficients (β) and cut-points (μ), both are estimated simultaneously.

Rationale behind using Ordered Probit model

The dependent variable used in our study to account for wellbeing of an individual is categorical variable; not only it is categorical, but the categories have meaningful order. Therefore, ordered probit model is the appropriate technique for estimating the relationship between trust (social capital) and wellbeing of an individual. Other techniques like OLS, logit or even the standard probit model are not appropriate or are less preferable in this particular situation. Moreover, the ordered probit model not only has the ability to show the direction of relationship between the dependent and all independent variables but also allows for calculations of ‘marginal effects’. The calculation of marginal effects will allow to calculate the probability of an individual being in higher satisfaction level if they move from “distrust” to “trust”.

Results and Discussion

This section is designed to present and discuss the empirical analysis conducted to find the relationship between generalized trust as a measure of social capital, and life satisfaction in Pakistan. The results are composed of three subsections. The first sub-section summarizes the sample characteristics by means of descriptive statistics. The second and third subsections report the ordered probit model results and average marginal effects respectively. These two subsections are the core of the study to draw main conclusions.

Descriptive Statistics

In order to examine the demographic and psychological profile of the respondents, the descriptive statistics table is developed for the key variables used in this study. The results are summarized in Table 1. It helps to overview the sample characteristics of 1943 respondents from Pakistan surveyed in the seventh wave of World Values Survey. The respondents reported on average higher life satisfaction, on 10 point scale the reported average is 7.67 signifying higher sense of wellbeing among the respondents. The trust variable, the main variable of interest, measured as binary variable has an average of 0.235. It means that in overall sample only 23.5% of the respondents report that “most people can be trusted”. It reflects relatively low levels of generalized trust in the society. Furthermore, the table helps to grasp the lower and upper limits of each variable used in the study and by reporting measures of central tendency and dispersion provides important information to understand the sample characteristics.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Life Satisfaction	7.672131	2.399189	1	10
Most people can be trusted	.2351434	.4241971	0	1
Financial satisfaction	7.299693	2.543489	1	10
Education	1.556696	.6747823	1	3
freedom	1.762807	.4254704	1	2
health	3.949795	.9243779	1	5
Marital status	1.197746	.4604669	1	3
gender	0.518955	.4997686	0	1
Age	35.66701	11.40084	18	85

Trust and Life Satisfaction Results: Ordered Probit Analysis

The impact of generalized trust as a measure of social capital on wellbeing of an individual is analyzed through a well conceptualized theoretical model and with a sophisticated ordered probit model. The selected econometric technique considers the specific categorization of the dependent variable. The estimated ordered probit model presented in Table 2 demonstrates a good fit with Likelihood Ratio Chi-Square of 697.26 and its p-value of less than 0.0001.

The estimated model shows that among all the included variables, trust, freedom, health, financial satisfaction and gender turns out to be the significant variables affecting life satisfaction/ wellbeing of an individual. These results signifies that financial stability, physical wellbeing and personal agency are fundamental for individual's wellbeing and life satisfaction in Pakistan. On the other hand, Education, marital status and age variable doesn't qualify as significant predictors in the model.

Table 2: Ordered Probit Results of Life Satisfaction and Trust Model

Variables	Coefficient	S.E	Z	P>z
Trust	-0.1328325***	.058088	-2.29	0.022
Freedom	0.4685974***	.0593953	7.89	0.000
Education				
2	.0178361	.0551624	0.32	0.746
3	-.0450467	.0846598	-0.53	0.595
health	.1202573***	.0279831	4.30	0.000
Financial Satisfaction	.2381929***	.0107535	22.15	0.000
gender	-.0927696*	.0519308	-1.79	0.074
Marital Status				
2	-.1316566	.0871626	-1.51	0.131
3	-.1335571	.1562688	-0.85	0.393
Age	-.0086843	.0126244	-0.69	0.492
Age2	.0000848	.0001483	0.57	0.567
Number of observation= 1943				
Log likelihood = -3330.6266		Pseudo R2	=	0.0948
LR $\chi^2(11)$ = 697.26		Prob > χ^2	=	0.0000
Note: *** p<0.01, ** p<0.05, * p<0.10. Reference groups: Education (Lower), Marital Status (Married)				

In contrast to general findings in the literature, where generalized trust and social capital are considered as having positive impact on individuals wellbeing, the current study has significant negative coefficient ($\beta = -0.133$, $p=0.022$). This negative and significant coefficient implies that individuals who report “most people can be trusted” turns out to be at lower level of life satisfaction as compared to the individuals that show cautiousness in trusting others. This “Trust Paradox” found in estimated econometric model suggests that in case of Pakistan, high level of trust makes the person vulnerable and results in lower levels of life satisfaction. When these estimation results are combined with the descriptive statistics, the picture becomes clearer. In a society where most people do not trust (only 23.5% reported that most of people can be trusted), the ability to trust makes the person prone to have lower levels of life satisfaction. These results provide an additional aspect to the literature by identifying that the trust is rewarding in the societies where the social environment has high trust levels, but is detrimental in a society where the general trend is not to trust or threshold level of trust is low.

In addition to the trust variable, freedom, financial satisfaction and health also appear to be significant even at 1% level of significance while gender variable is found significant at 10% . The coefficient of freedom and control over life is positive ($\beta=0.469$) and highly significant ($p<0.01$). These results suggest that individuals in Pakistan consider freedom as an important determinant of their life satisfaction. Similarly, the economic wellbeing of an individual, proxied by self-reported financial satisfaction, also has a positive coefficient ($\beta=0.238$) and is highly significant ($p<0.01$), and implies its fundamentality in achieving higher life satisfaction. The health coefficient is also positive and highly significant, and suggest the importance of physical wellbeing in defining one’s happiness or life satisfaction in the estimated model. The significant and positive coefficients of financial satisfaction and health over insignificant education coefficient implies that in a developing economy, immediate material gains (financial satisfaction) and physical security are more critical determinants of life satisfaction than the long run human capital gains through education. Finally, the gender variable was included in its binary form (female=0, male=1) and was found to be negative ($\beta = -.093$) and significant at the 10% level of significance ($p=0.074$). This result shows that, on average, men in the sample report lower life satisfaction as compared to women.

The Average Marginal Effects (AME) of Trust on Life Satisfaction

The calculations of AMEs in addition to probit model coefficients helps to make coefficients interpretable. While ordered probit model has the ability to show the direction and significance of the impact, the coefficient magnitudes are not directly interpretable and needs calculations of average marginal effects for the purpose. Table 3 reports the AMEs calculated for the relationship between trust and life satisfaction for each outcome category. These calculations provide with further evidence for the relationship. For outcome 10, the marginal effect is -0.041 ($p=0.02$). The negative sign and the coefficient value suggest that an individual that report “most people can be trusted” is 4.1% less likely of being “completely satisfied” as compared to the individuals that report cautiousness in trusting people. Similarly, the coefficient of trust for outcome 9 is also significant and negative, suggesting that the probability of individuals reporting trust being in this high outcome category is lesser than distrusting individuals. On the other hand, the positive sign and significance of coefficients at lower outcomes of life satisfaction confirms that the probability of trusting individuals being at lower outcome is higher than the individuals that do not trust. For example at outcome 5, the probability of trusting individual is 1.3% more than the distrusting individual. Hence, the AME results confirm that the probability of trusting individual being at

higher life satisfaction is lower (negative sign), while the probability of being at lower life satisfaction is higher, as compared to distrusting individuals.

Table 3: Average Marginal Effects of Trust on Life Satisfaction

Life Satisfaction Outcome	dy/dx	Delta-method S.E	z	P>z
10	-.0413225	.0178843	-2.31	0.021
9	-.0016775	.000889	-1.89	0.059
8	.0010385	.0004308	2.41	0.016
7	.0042511	.0017754	2.39	0.017
6	.0061757	.0026671	2.32	0.021
5	.0132089	.0058197	2.27	0.023
4	.0068393	.0031113	2.20	0.028
3	.0036202	.0017114	2.12	0.034
2	.001077	.0005803	1.86	0.063
1	.0067892	.0032049	2.12	0.034

Note: dy/dx for factor levels is the discrete change from the base level.

Conclusion and Policy Implications

This study examined the relationship between social capital, proxied by generalized trust, and individuals' wellbeing, as measured by self-reported life satisfaction, in the context of a developing country, specifically Pakistan. The World Values Survey Wave 7 (WVS-7) data is used, and the ordered probit model is employed for estimation. The study yielded very insightful results and brought the Trust Paradox to the surface.

The main conclusion and finding of this study is the identification of a “Trust Paradox” in Pakistan. The ordered probit model and AME results both demonstrate that trusting individuals report lower life satisfaction than distrusting individuals. The study confirms that the probability of trusting individuals achieving higher life satisfaction outcomes (10 and 9) is significantly lower than the probability of cautious individuals showing distrust. The in-depth analysis shows that in a low-trust environment, where only 23.5% of participants exhibit trusting behavior, the trust trait makes individuals vulnerable and negatively affects their wellbeing. Based on empirical analysis, it can be concluded that in low-trust environments, trust is not rewarding and may lead to negative outcomes (i.e., lower wellbeing).

Moreover, in addition to the main findings regarding the trust paradox, the study examined other important determinants of life satisfaction. Freedom and control over life turn out to be the most powerful and significant determinants of life satisfaction. Similarly, the estimation results show that financial satisfaction and physical wellbeing or health are fundamental determinants in defining life satisfaction. The gender variable, significant at the 10% level, shows that, on average, men report lower life satisfaction than women. All these results lead us to conclude that freedom, health, and financial satisfaction are primary predictors of life satisfaction in Pakistan.

The empirical findings of the current study and the identification of a trust paradox provide the basis for important policy recommendations for Pakistan, in particular, and for developing countries in general. The empirical analysis suggests that trusting individuals are unable to reap the rewards of social capital and are even penalized by lower life satisfaction; therefore, explicit policies are required to address this. The fact that the majority of respondents reported a lack of generalized trust signifies the need for effective policies. To address the trust paradox, policies must ensure the rule of law, effective contract enforcement, and stronger consumer protection.

Policies, institutions, and environments should be put in place to penalize those who breach trust and cause negative outcomes for others. Ultimately, measures should be taken to reduce the vulnerability of trusting people and ensure a safe social environment where the majority can be trusted, and where trust brings positive outcomes rather than negatively impacting one's wellbeing.

References

- Appleton, S., & Song, L. (2008). Life satisfaction in urban China: Components and determinants. *World development*, 36(11), 2325-2340.
- Blanchflower, D. G., & Oswald, A. J. (1994). Estimating a wage curve for Britain 1973-90. *The Economic Journal*, 104(426), 1025-1043.
- Blanchflower, D. G., & Oswald, A. J. (2004). Well-being over time in Britain and the USA. *Journal of public economics*, 88(7-8), 1359-1386.
- Blanchflower, D. G., & Oswald, A. J. (2019). Do humans suffer a psychological low in midlife? Two approaches (with and without controls) in seven data sets. In *The economics of happiness: How the Easterlin paradox transformed our understanding of well-being and progress* (pp. 439-453). Cham: Springer International Publishing.
- Botha, F. (2014). Life satisfaction and education in South Africa: Investigating the role of attainment and the likelihood of education as a positional good. *Social Indicators Research*, 118(2), 555-578.
- Chen, W. C. (2012). How education enhances happiness: Comparison of mediating factors in four East Asian countries. *Social indicators research*, 106(1), 117-131.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American journal of sociology*, 94, S95-S120.
- Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual review of psychology*, 54(1), 403-425.
- Easterlin, R. A. (2004). Life Satisfaction: Can We Produce It?. In *Challenges for Quality of Life in the Contemporary World: Advances in quality-of-life studies, theory and research* (pp. 347-357). Dordrecht: Springer Netherlands.
- Hassan, F., Hina, H., & Qayyum, A. (2020). Education and life satisfaction: A marginal mediation analysis. *Business Review*, 15(2), 1-26. <https://doi.org/10.54784/1990-6587.1058>
- Helliwell, J. (1996). Economic growth and social capital in Asia, NBER working paper 5470. National Bur
- Helliwell, J. F. (2003). How's life? Combining individual and national variables to explain subjective well-being. *Economic modelling*, 20(2), 331-360. *Journal of Economic Research*.
- Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, 359(1449), 1435-1446.
- Helliwell, J. F., & Wang, S. (2011). Trust and Well-being. *International Journal of Wellbeing*, 1(1), 42-78.
- Helliwell, J. F., Layard, R., & Sachs, J. (Eds.). (2012). *World Happiness Report*. New York: The Earth Institute, Columbia University.
- Inglehart, R., Foa, R., Peterson, C., & Welzel, C. (2008). Development, freedom, and rising happiness: A global perspective (1981–2007). *Perspectives on psychological science*, 3(4), 264-285.

- Leary, M. R., & Baumeister, R. F. (1995). The need to belong. *Psychological bulletin*, 117(3), 497-529.
- Newton, K. (1997). Social capital and democracy. *American behavioral scientist*, 40(5), 575-586.
- Ngamaba, K. H., Armitage, C., Panagioti, M., & Hodkinson, A. (2020). How closely related are financial satisfaction and subjective well-being? Systematic review and meta-analysis. *Journal of Behavioral and Experimental Economics*, 85, 101522.
- Prendergast, R. (2004). Development and freedom. *Journal of Economic Studies*, 31(1), 39-56.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon and schuster.
- Putnam, R. D., Leonardi, R., & Nanetti, R. Y. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton University Press.
- Roth, F. (2022). Social capital, trust, and economic growth. In *Intangible Capital and Growth: Essays on Labor Productivity, Monetary Economics, and Political Economy*, Vol. 1 (pp. 167-185). Cham: Springer International Publishing.
- Sen, A. (1999). The perspective on freedom. *Development as Freedom*, Oxford University Press, Oxford.
- Serageldin, I. (1999). Social capital, Growth and Poverty: A survey of Cross country evidence by Stephan Knack. Social capital Initiative Working Paper, 7.
- Steckermeier, L. C. (2021). The value of autonomy for the good life. An empirical investigation of autonomy and life satisfaction in Europe. *Social Indicators Research*, 154(2), 693-723.
- Temple, J. (2002). Growth effects of education and social capital in the OECD countries. *Historical Social Research*, 27(4), 5-46.
- Verme, P. (2009). Happiness, freedom and control. *Journal of Economic Behavior & Organization*, 71(2), 146-161.
- Williams, B. (1988). Formal structures and social reality. In D. Gambetta (Ed.), *Trust: Making and breaking cooperative relations*. Oxford University Press.