

From People to Power:
Examining the Relationship Between Interpersonal and Institutional Trust

Daniel Lovett

Fundamentals of Quantitative Methods

Prof. Kyle A. Joyce

3 December 2025

1. Introduction

Trust in both other individuals and in the public institutions that structure and shape our lives plays a critical role in the functioning of society, underpinning civic activities much as a common currency facilitates economic exchange. Despite the combination of a general belief in this idea, brought into focus in both the academic literature and the mainstream through works such as Putnam (2000), and the generally observed decline in levels of both interpersonal and institutional trust over time (Twenge et al, 2014), a gap in current research continues to exist in understanding the causality and interaction between these two forms of trust.

As such, in this paper I will look to fill this gap, applying multivariate linear regression modeling techniques to data combined from the last three waves of the European Social Survey (ESS), conducted in 2018 (Wave 9), 2020 (Wave 10), and 2023 (Wave 11) respectively, to assess whether variation in interpersonal trust can be observed to have a statistically significant independent causal impact on institutional trust, controlling for several other potential variables such as country, education, income, gender, age, and political ideology.

2. Literature Review

Several studies within the multidisciplinary fields of psychology, management, and political science, among others, have emerged recently that focus on the importance of interpersonal trust in facilitating relationships within complex organizations. At the conceptual level, research published by Simpson (2007) contributed significantly to this literature by evaluating variation in previous scholarly research on interpersonal trust, describing its role as a social lubricant that promotes cooperation and maintains social order, as well as the difficulties

that researchers continue to face in studying the concept due to its multifaceted nature.

Narrowing in on a specific outcome of variation in interpersonal trust, Bjørnskov et al (2013), using data from the World Values Survey from 1980 to 2005, found that increases in interpersonal trust led to higher levels of educational attainment and legal and bureaucratic institutional quality, which in turn fostered growth in per capita GDP. Investigating interpersonal trust as a dependent variable, work performed by Hasche et al (2020) utilized a case study from the Swedish Public Employment Service to assess the determinants of individual-level trust between coworkers, finding that the three primary identified drivers of interpersonal trust - ability, benevolence, and integrity - had varied impacts depending on the nature of the relationship being assessed.

Interest in research on the topic of institutional trust has similarly grown in the last several years. A meta-analysis of existing works conducted by Bornstein (2015) surveyed the current field of research in this area, highlighting its importance to the functioning of democracy, the courts, and businesses, while additionally examining variation in the ways institutional trust has been defined and operationalized in the past. Examining a specific outcome caused by variation in institutional trust, Yuan et al (2022) analyzed data from 44 countries during the COVID-19 pandemic, finding that higher levels of trust in institutions were associated with a greater likelihood of undergoing testing for the virus. Finally, treating institutional trust as a dependent variable, Fuglsang & Jagd (2015) utilized a case study of individuals within a Jordanian textile factory to evaluate how trust in institutions is built, concluding that it is a product of both micro-level interactions and a concept they define as “sensemaking”, in which people engage in continual retrospective rationalization of their environment and relationships.

Finally, narrowing in more on the specific interaction between both interpersonal and institutional trust, as this research will set out to analyze, Brehm & Rahn (1997) were among the first to explicitly examine the link between the multiple dimensions of trust. Using U.S. General Social Survey (GSS) data from 1972 to 1994, their research explored the bidirectional relationships between civic engagement, interpersonal trust, and institutional trust, observing that institutional trust has a strong causal effect on interpersonal trust, and that a weaker, but still significant impact could be found in reverse. Reapplying this research over 20 years later to a new region, Spadaro et al (2020) used data from the ESS across 16 countries to investigate how institutional trust impacts interpersonal trust, finding evidence in support of a link between the two concepts, with confidence in institutions leading to trust in individuals through the mediating influence of feelings of security and protection engendered by such beliefs. Building off of this, employing data from the GSS from 1972 to 2012 and the Monitoring the Future Survey from 1976 to 2012, Twenge et al (2014) explored the relationship between a variety of potential explanatory variables and both interpersonal and institutional trust, observing that the two forms of trust behave differently to variation in a range of factors, with interpersonal trust negatively impacted as income inequality rose and declining institutional trust linked to increases in poverty and violent crime. Replicating this area of focus in a new environment, Evasti et al (2019) similarly explored variations in both interpersonal and institutional trust between Greek and other European participants to the ESS from 2002 to 2011, revealing how the economic and political crisis led to marked declines in institutional trust for Greek respondents compared to other countries, but had a neutral or even slightly positive effect on interpersonal trust, suggesting that when trust in institutions declines, citizens may look to fill this vacuum by

increasing their trust in each other. Reversing the causality to assess the impact of variation in different forms of trust on other variables, Cho & Park (2019) utilized survey data from employees at the US Federal Aviation Administration (FAA) in 2003 to investigate the effects of interpersonal and institutional trust on employee satisfaction and organizational commitment, suggesting that institutional trust had a more significant impact on organizational commitment than interpersonal trust. Assessing the role of interpersonal trust as a mediator, Kim & Park (2019) evaluated how trust between individuals within an institution acts as a vector between leadership and member behavior, using data from a survey of employees at a manufacturing company in South Korea to demonstrate how interpersonal trust is both impacted by institutional leaders and itself affects how members of that institution perceive and behave within it. Examining institutional trust as a mediator, in contrast, Baek & Jung (2015) utilized survey data from the Korean government as well as blue-collar workers in the United Kingdom to analyze how institutional trust acts as a mediating variable between interpersonal trust and organizational commitment, arguing that individuals develop broad-level trust through specific interactions with other individuals who incarnate the norms of an institution. Finally, taking a different methodological approach, Cassar et al (2014) used a trust experiment involving 350 participants from Italy and Kosovo in 2011 to measure trust levels both before and after exposure to varied levels of institutional quality and strength, finding that stronger institutions increased interpersonal trust among participants.

As the existing literature therefore illustrates, current research primarily focuses on the drivers and outcomes of variation in either interpersonal or institutional trust. The limited number of studies that have examined the link between the two forms of trust have primarily

centered around how institutional trust impacts interpersonal trust, the role of institutional trust as a mediating variable between interpersonal trust and another factor, or how a range of factors variably impact and are affected by both types of trust.

As these studies indicate, a substantial gap in the current body of research exists pertaining to whether interpersonal trust impacts institutional trust. This research will thus look to fill this gap, exploring the degree to which a statistically significant causal relationship can be observed between interpersonal trust, which will be treated as the independent variable, and institutional trust, which will act as the dependent variable.

3. Explanation of Hypothesized Causal Relationship Between Variables

Before measuring and analyzing the degree to which such a relationship exists, however, it is necessary first to describe the logic and theory behind why any causal link may be reasonably expected to exist in the first place. A relatively more significant amount of scholarly attention (Herreros, 2008; Fuglsang & Jagd, 2015) has been devoted to explaining how higher levels of trust in political institutions facilitate stronger bonds and connections between individuals, with trusted institutions acting as third-party mediators of sorts between individual-level interactions, as well as creating environments that are more conducive to interpersonal trust by successfully fostering security, legal regulations, community norms and procedures.

The reverse causal theory, which this proposed research will focus on, has been much less explored. Among the few works that have examined the directional relationship between interpersonal trust (as the explanatory variable) and institutional trust (as the dependent variable), the previously described research of Baek and Jung (2015) and Brehm and Rahn (1995) will serve as the theoretical models for this analysis. In their explanations, Baek and Jung posit that

interpersonal trust influences institutional trust as people make concrete their beliefs and confidence in more abstract institutions through their previous experiences with specific individuals who incarnate the norms of an institution. Brehm and Rahn further contribute to this conceptual link by similarly arguing that, as specific individuals are treated as the ultimate actors who realize the norms of behavior that institutions create and enforce, greater trust in other people will therefore facilitate a stronger belief that institutional rules will be reciprocated and followed, contributing to higher levels of institutional confidence as a result.

It is these two interrelated causal pathways - specific individuals embodying the norms of institutions, and belief in such individuals therefore contributing to greater confidence in institutional reciprocity and effectiveness - that will underlie the rationale for measuring the relationship between both forms of trust in the sections that follow.

4. Description of the Dataset and Measurement of Primary Variables

To conduct such an analysis, this research will leverage data from the three most recent iterations (Waves 9-11) of the European Social Survey, conducted from 2018 through 2023. Across these three waves, which have been combined into a single dataset, are individual-level data from over 90,000 respondents and 15 countries on a wide range of themes and topics, including politics, socioeconomic indicators, media use, well-being, personal and household characteristics, and human values. This survey was selected because of its use in existing scholarly research on trust (Evasti et al, 2019), as well as its wording of questions using a numerical scale, facilitating more granular and detailed analysis. Furthermore, the decision to combine data from the three different waves of the survey into a single dataset was made to

increase the sample size of the population used in the regression model and to explore whether there were any observed temporal differences in either form of trust, as will be explored later.

Using this dataset, beginning with the primary explanatory variable of interest, this paper will define interpersonal trust as the degree to which individuals perceive others to be fair, reciprocal, and helpful towards each other, capturing multiple dimensions of trust and mirroring the conceptualization put forth by Brehm and Rahn (1995). It will be operationalized using a simple additive index comprised of three different questions from the ESS, which asks respondents to rate on a scale from 0 to 10 (0 being the lowest and 10 being the highest) the degree to which most people can be viewed as trustworthy, helpful, and fair. The additive index will sum the scores from the three survey questions and then calculate the average. The survey questions and the equation used for the additive index are further outlined in Figure 1 below.

Figure 1: Survey Questions and Additive Index Equation Used for Interpersonal Trust

Variable	Question / Equation
People Trustworthy	Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?
People Fair	Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?
People Helpful	Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?
Interpersonal Trust Index	$(\text{People Trustworthy} + \text{People Fair} + \text{People Helpful}) / 3$

Institutional trust, the dependent variable of interest, will be conceptually defined as the degree to which individuals have confidence in the broad political institutions that orient and structure society. It will be measured using a similar additive index that sums up and averages

three variables from the ESS, which asked participants to rate on a scale from 0 to 10 (0 again the lowest and 10 the highest) how much they trust legal institutions, their country's parliament, and political parties. The survey questions and the index equation used for the dependent variable are similarly described in Figure 2 below.

Figure 2: Survey Questions and Additive Index Equation Used for Institutional Trust

Dependent Variable	Question / Equation
Trust Legal System	Please tell me how much you personally trust each of the institutions I read out the legal system?
Trust Parliament	Please tell me how much you personally trust each of the institutions I read out ... [country]'s parliament?
Trust Political Parties	Please tell me how much you personally trust each of the institutions I read out ... political parties?
Institutional Trust Index	$(\text{Trust Legal System} + \text{Trust Parliament} + \text{Trust Political Parties}) / 3$

Using these two operationalizations of the primary variables of interest from the European Social Survey, this study will employ a range of statistical methods, as described in the following section, to assess whether a causal relationship can be observed.

5. Proposed Statistical Approach

The evaluation will begin with an exploratory analysis of the data related to interpersonal and institutional trust. This will include the calculation of several descriptive statistics for both forms of trust to communicate the central tendency (mean and median) and dispersion of the data (standard deviation and skewness), as well as the creation of histograms for each index to visualize the distribution of values. Additionally, the internal validity of both additive indexes used to operationalize trust will be determined by calculating the Cronbach's Alpha score for

each, a measure that quantifies the relationship between multiple scale items to ensure they are internally directionally consistent. Following this, the change across the three different survey waves will be assessed, and the correlation between the two variables of interest will be examined and visualized using a scatterplot.

Finally, this research will utilize multivariate linear regression modelling to estimate the independent causal relationship between interpersonal trust and institutional trust, controlling for several other potential explanatory factors such as income, education, gender, age, and nationality, commonly included in previous research in this field (Brehm & Rahn, 1997). Mirroring generally accepted academic standards, a p-value of 0.05 will be used as the threshold to denote statistical significance and to determine if the null hypothesis, that no causal relationship exists, can be rejected. Using these regression coefficients and associated p-values, the predicted level of institutional trust based on variation in interpersonal trust will be visualized to more effectively communicate the research's ultimate findings.

6. Results

As outlined above, the evaluation began with an exploratory analysis of the indices used to operationalize the primary variables of interest, as well as the component questions in the ESS survey that comprised them. Figure 3 below summarizes the findings, displaying descriptive measures of central tendency and dispersion, as well as internal validity for each additive index.

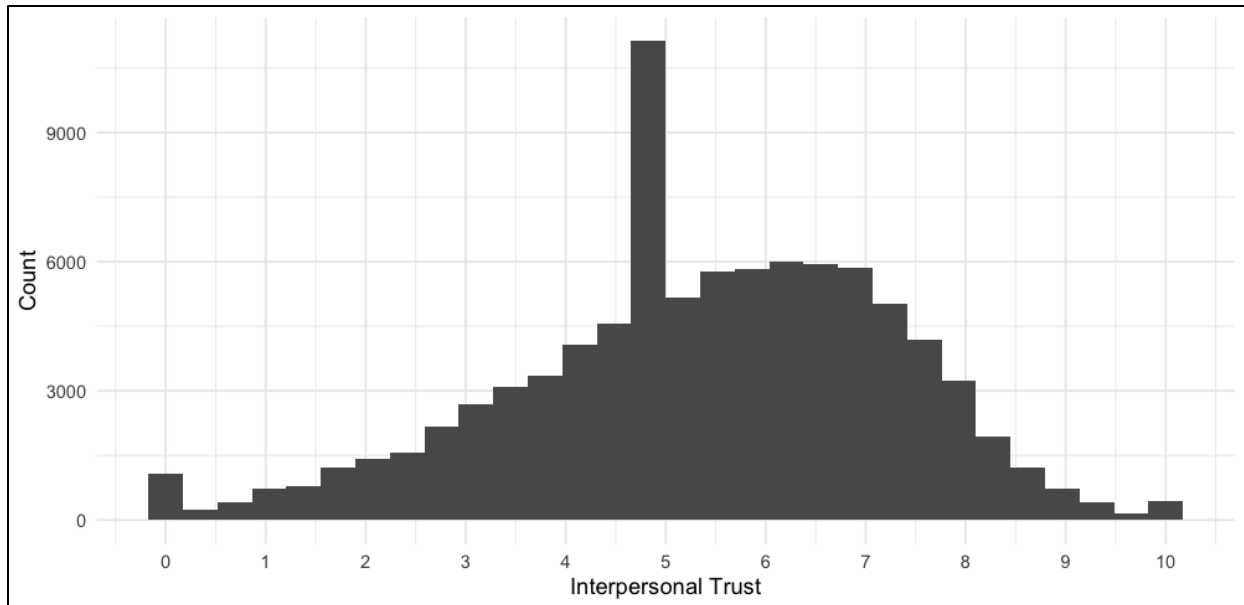
Figure 3: Descriptive Statistics for Primary Variables of Interest

Variable	Mean	Median	SD	Skewness	Cronbach's Alpha
Interpersonal Trust Index	5.40	5.67	1.95	-0.43	0.79
People Fair	5.81	6.00	2.24	-0.53	--

People Helpful	5.14	5.00	2.30	-0.29	--
People Trustworthy	5.27	5.00	2.43	-0.41	--
Institutional Trust Index	4.72	5.00	2.24	-0.22	0.85
Trust Legal System	5.56	6.00	2.68	-0.45	--
Trust Parliament	4.74	5.00	2.61	-0.18	--
Trust Political Parties	3.85	4.00	2.39	0.02	--

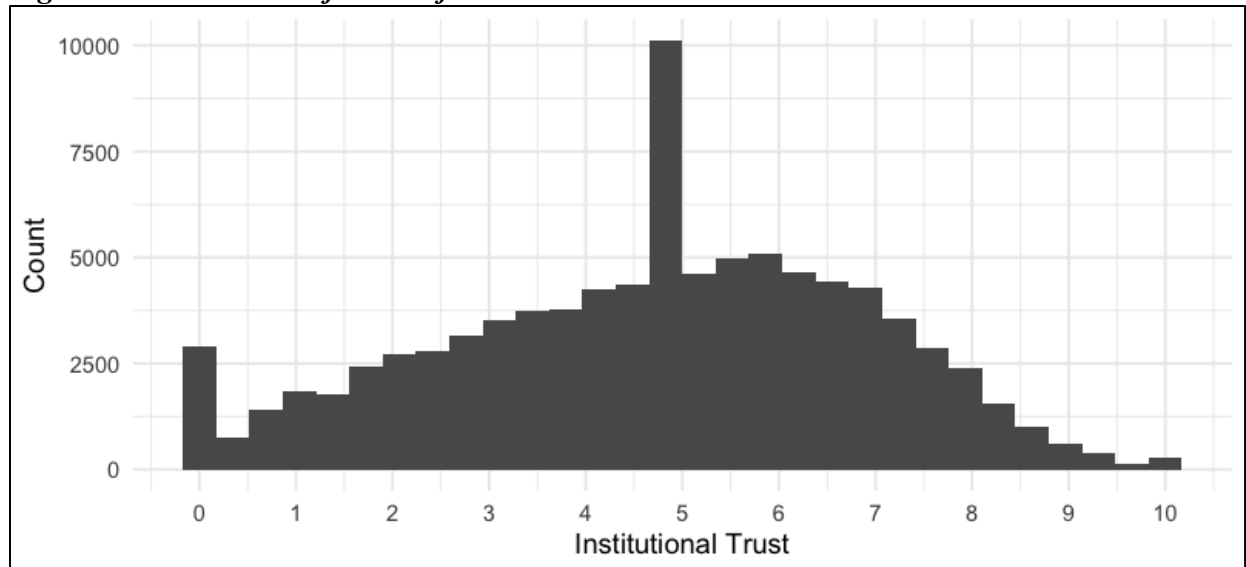
The interpersonal trust index had a mean score of 5.40 (out of a maximum potential score of 10.00) and a median of 5.67, indicating it was negatively skewed, as well as a standard deviation of 1.95. These findings are further visualized in the histogram in Figure 4 below, which highlights the longer tail on the left indicating a negative skew, as well as identifies the finding that a disproportionately high number of respondents are clustered around an average value of 5.0, likely indicating the propensity of participants to respond exactly in the middle (a response of 5) if they were unsure or agnostic about the question. Of the three individual variables that made up the index, participants were most confident that people are fair, followed by being trustworthy, and finally helpful. The Cronbach's Alpha score for the index of interpersonal trust, a statistical measure of internal consistency used to assess how closely a group of items measures the same underlying concept on a scale from 0 to 1, with higher values indicating greater reliability, was 0.79, demonstrating reasonably high internal validity.

Figure 4: Distribution of Values for Interpersonal Trust Index



Moving on to the dependent variable, the institutional trust index had a lower mean score, of 4.72, and a median score of 5.00, contributing to a similarly negative skew and a relatively more dispersed distribution, with a standard deviation of 2.24. Similarly to the independent variable, these results are confirmed in the histogram displayed in Figure 5 below, which again shows the longer left-word tail (though less so than the tail for interpersonal trust) indicative of a negative skew, as well as repeats the finding of respondents clustering around an average value of 5.0. Assessing the individual components of the index, respondents indicated the highest degree of trust in legal institutions, followed by their country's parliament, and finally political parties. The Cronbach's Alpha value for this figure was again high, with a value of 0.85, demonstrating strong interval consistency.

Figure 5: Distribution of Values for Institutional Trust Index



Assessing how both primary variables have changed from 2018 (during the 9th wave of the ESS Survey) to 2023 (the 11th wave), Figure 6 highlights the mean values for both interpersonal and institutional trust in each year included in the dataset.

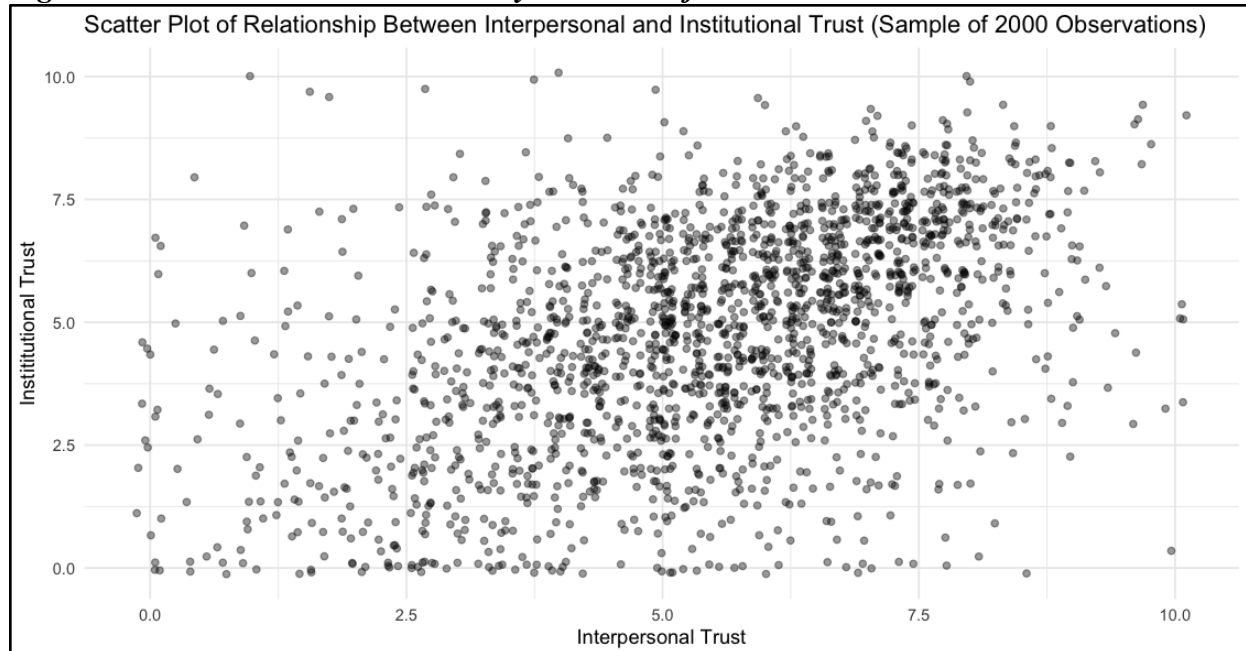
Figure 6: Mean Values Across Each Wave of Survey for Primary Variables of Interest

Variable	2018	2020	2023
Interpersonal Trust Index	5.45	5.34	5.42
Institutional Trust Index	4.72	4.68	4.73

The findings show limited variation in either factor across the 3 survey waves, with a very small dip from 2018 to 2020, and a subsequent rise from 2020 to 2023 observed on average.

Finally, concluding the description analysis, as shown in Figure 7, a scatter plot using a random sample of 2,000 observations from the over 90,000 total observations was created to minimize visual overlap and assess the correlation between the two primary variables of interest.

Figure 7: Correlation Between Primary Variables of Interest



The results revealed a positive relationship, with increases in respondents' level of interpersonal trust associated with higher degrees of trust in institutions. The correlation coefficient of 0.46 for the two variables confirmed this finding, indicating a strong positive link.

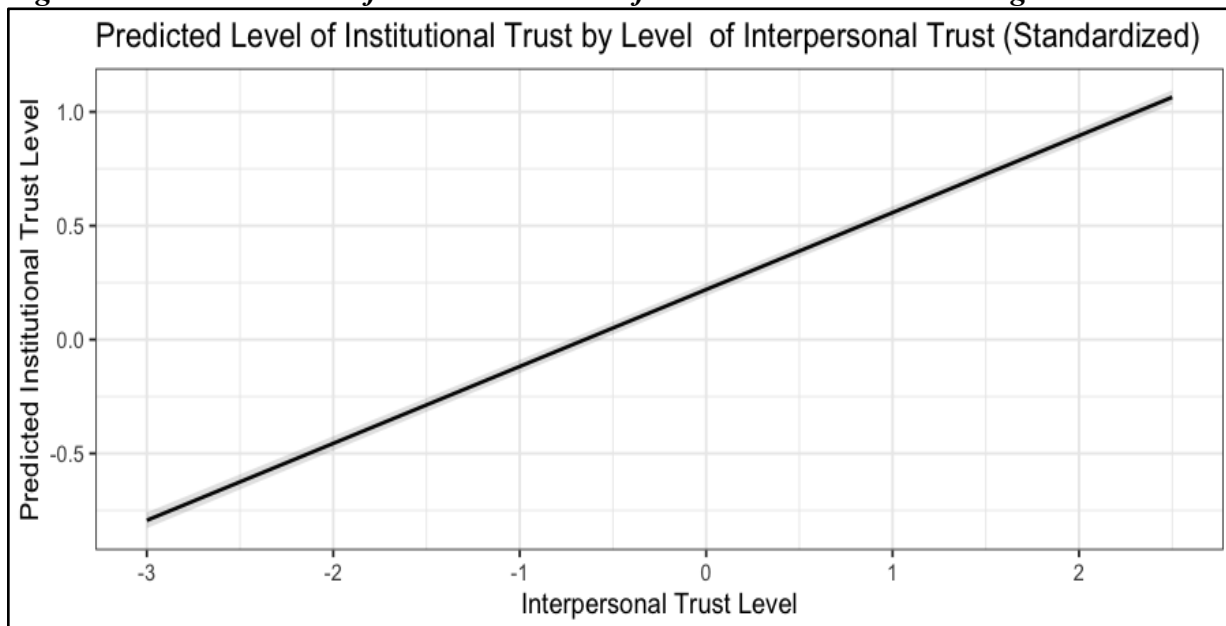
Shifting the focus towards predictive analysis, a multivariate linear regression model was used to assess the independent causal impact of variation in interpersonal trust on respondents' level of institutional trust, controlling for the potential alternative explanatory effects of left-right political ideology, income, years of education, gender, age, and country. The findings from this model are described in Figure 8, which communicates the direction, magnitude, and statistical significance of each regression coefficient, standardized using Z-scores to communicate standard deviations from the mean, along with the population size and R-squared value.

Figure 8: Predicted Effects from Multivariate Linear Regression Model

Variable	Coefficient t (SE)	Variable	Coefficient t (SE)	Variable	Coefficient t (SE)
Intercept (Male, Austria)	0.22 *** (0.01)	Belgium	-0.23 *** (0.02)	Ireland	-0.27 *** (0.02)
Interpersonal Trust	0.34 *** (0.00)	Bulgaria	-0.80 *** (0.02)	Israel	-0.48 *** (0.04)
Left-Right Ideology	0.06 *** (0.00)	Switzerland	0.36 *** (0.02)	Iceland	-0.15 *** (0.02)
Income	0.05 *** (0.00)	Cyprus	-0.42 *** (0.03)	Italy	-0.16 *** (0.02)
Years of Education	0.05 *** (0.00)	Czechia	-0.22 *** (0,02)	Lithuania	-0.45 *** (0.02)
Gender (Female)	-0.02 *** (0.01)	Germany	-0.08 *** (0.02)	Latvia	-0.69 *** (0.03)
Age	-0.01 ** (0.00)	Denmark	0.29 *** (0.03)	Montenegro	-0.20 *** (0.02)
		Estonia	-0.14 *** (0.02)	North Macedonia	-0.58 *** (0.03)
		Spain	-0.49 *** (0.02)	Netherlands	0.13 *** (0.02)
		Finland	0.24 *** (0.02)	Norway	0.42 *** (0.02)
		France	-0.34 *** (0.02)	Poland	-0.49 *** (0.02)
		United Kingdom	-0.40 *** (0.02)	Portugal	-0.38 *** (0.02)
		Greece	-0.16 *** (0.02)	Serbia	-0.37 *** (0.02)
		Croatia	-0.96 *** (0.02)	Sweden	0.14 *** (0.02)
		Hungary	-0.05 * (0.02)	Slovenia	-0.54 *** (0.02)
		Slovakia	-0.32*** (0.02)		
R^2	0.32				
Adjusted R^2	0.32				
Num Obs.	90,362				
*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$					

Beginning with the independent variable, the results of the regression model applied to over 90,000 observations included in the ESS data indicate that a highly statistically significant causal relationship can be observed between interpersonal and institutional trust, with a p-value of less than 0.001. Furthermore, the direction of this relationship is positive, and the magnitude of the effect of a 0.34 standard deviation increase in institutional trust associated with one standard deviation increase in interpersonal trust is sizeable relative to the control variables. This causal link is visualized in Figure 9 to more clearly communicate the increase in level of institutional trust predicted by an independent increase in interpersonal trust, along with the tight 95% confidence intervals, indicated by the grey shading surrounding the primary black line.

Figure 9: Predicted Level of Institutional Trust from Multivariate Linear Regression Model



Finally, the additional explanatory variables included behaved largely in line with expectations from previous academic research, as Figure 8 shows, with higher levels of

education, income, and conservative ideology, as well as being male, younger, or living in a Nordic country such as Norway, Sweden, Denmark, or Finland, contributing towards higher levels of institutional trust. Taken together with interpersonal trust, these factors contributed to explaining around 32% of the total variation in the dataset, as indicated by the R-squared value in Figure 6, demonstrating a reasonable model fit with room for further refinement and evaluation in future research, as will be discussed in the sections to follow.

7. Analysis and Discussion

Evaluating these results in the context of the primary research question, the findings indicate that the null hypothesis can be rejected in favor of the alternative, that a statistically significant, independent, causal relationship exists between the two variables of interest. More specifically, it shows that increases in individuals' level of interpersonal trust led to substantively higher levels of confidence in political institutions. Additionally, while not directly measuring the mediating link between these two variables proposed earlier, that greater trust in individuals who embody the norms or values of an institution results in higher levels of trust in the institutions themselves, this research lends further credence to the plausibility of the theory. As will be discussed in the final section, future research may look to more explicitly explore the connection between the independent, dependent, and proposed mediating variables.

8. Conclusion & Implications for Future Research

While a growing body of research has explored interpersonal trust and institutional trust in isolation, this study set out to fill a gap in the current academic literature by examining

whether variation in the degree to which people trust other individuals could be found to impact their level of confidence in political institutions.

To do so, individual-level data containing over 90,000 observations from the past three waves of the European Social Survey (2018 - 2023) were leveraged. Interpersonal trust was operationalized using an additive index of three different survey questions related to respondents' belief in the trustworthiness, fairness, and helpfulness of others, while institutional trust was measured using an index of questions related to participants' level of trust in legal institutions, parliament, and political parties.

Using a variety of statistical measures to first describe the central tendency, dispersion, and correlation of these primary variables of interest; then explore the value distribution, change over time, and correlation of the primary variables of interest, and finally leverage multivariate regression modelling to isolate and infer their causal relationship, the results showed that a statistically significant independent link could be observed. More substantively, the model indicated that a single standard deviation increase in interpersonal trust predicted a rise of 0.34 standard deviations in individuals' level of institutional trust, controlling for the other potential explanatory variables included.

Extending these findings to the broader academic literature on trust and its outcomes and antecedents, this research adds a new layer to a previously under-examined aspect of the inter-relationship between different forms of trust future research should continue to explore this connection, testing it across additional political contexts and time frames, leveraging new methods or techniques to operationalize the variables, and including further explanatory or confounding variables, as well as interaction effects, to explain a greater percentage of the total

variation observed in the data. In addition, as previously noted, more focus could be spent on constructing a method for evaluating the precise causal link theorized in this research, that interpersonal and institutional trust are connected by people's propensity to make their beliefs in abstract institutions concrete through their exemplification by specific individuals.

Doing so would further strengthen the theoretical underpinnings of the relationship observed in this research, contributing to our understanding of the interplay between interpersonal and institutional trust at a time when policymakers in need of innovative solutions to address persistent declines in both forms of trust more than ever. Leveraging these findings, future public policies aimed at improving citizens trust and confidence in institutions should thus pay more attention to strengthening individuals' personnel connections and ties to other members in their community. By incentivizing pro-social activities and civic engagement in an attempt to strengthen communal bonds, which a substantial amount of academic research has already been devoted to, political institutions can create a positive feedback loop in which individual and institution trust are both raised.

References

- Baek, Y. M., & Jung, C. S. (2015). Focusing the mediating role of institutional trust: How does interpersonal trust promote organizational commitment? *The Social Science Journal (Fort Collins)*, 52(4), 481–489. <https://doi.org/10.1016/j.soscij.2014.10.005>
- Bjørnskov, C., & Méon, P.-G. (2013). Is trust the missing root of institutions, education, and development? *Public Choice*, 157(3/4), 641–669. <https://doi.org/10.1007/s11127-013-0069-7>
- Bornstein, B. H., & Tomkins, A. J. (2015). Institutional Trust: An Introduction. *Motivating Cooperation and Compliance with Authority: The Role of Institutional Trust*, 62, 1–11. https://doi.org/10.1007/978-3-319-16151-8_1
- Brehm, J., & Rahn, W. (1997). Individual-Level Evidence for the Causes and Consequences of Social Capital. *American Journal of Political Science*, 41(3), 999–1023. <https://doi.org/10.2307/2111684>
- Cassar, A., d’Adda, G., & Grosjean, P. (2014). Institutional Quality, Culture, and Norms of Cooperation: Evidence from Behavioral Field Experiments. *The Journal of Law & Economics*, 57(3), 821–863. <https://doi.org/10.1086/678331>
- Cho, Y. J., & Park, H. (2011). Exploring the Relationships Among Trust, Employee Satisfaction, and Organizational Commitment. *Public Management Review*, 13(4), Article 934941999. <https://doi.org/10.1080/14719037.2010.525033>
- Ervasti, H., Kouvo, A., & Venetoklis, T. (2019). Social and Institutional Trust in Times of Crisis: Greece, 2002–2011. *Social Indicators Research*, 141(3), 1207–1231. <https://doi.org/10.1007/s11205-018-1862-y>

- European Social Survey European Research Infrastructure (ESS ERIC) (2025) ESS11 - integrated file, edition 3.0 [Data set]. Sikt - Norwegian Agency for Shared Services in Education and Research. https://doi.org/10.21338/ess11e03_0.
- European Social Survey European Research Infrastructure (ESS ERIC) (2023) ESS10 - integrated file, edition 3.2 [Data set]. Sikt - Norwegian Agency for Shared Services in Education and Research. https://doi.org/10.21338/ess10e03_2.
- European Social Survey European Research Infrastructure (ESS ERIC) (2023) ESS9 - integrated file, edition 3.2 [Data set]. Sikt - Norwegian Agency for Shared Services in Education and Research. https://doi.org/10.21338/ess9e03_2.
- Fuglsang, L., & Jagd, S. (2015). Making sense of institutional trust in organizations: Bridging institutional context and trust. *Organization* (London, England), 22(1), 23–39. <https://doi.org/10.1177/1350508413496577>
- Hasche, N., Höglund, L., & Mårtensson, M. (2020). Intra-organizational trust in public organizations – the study of interpersonal trust in both vertical and horizontal relationships from a bidirectional perspective. *Public Management Review*, 23(12), 1768–1788. <https://doi.org/10.1080/14719037.2020.1764081>
- Herreros, F. (2008). The State and the Creation of an Environment for the Growing of Trust. *Rationality and Society*, 20(4), 497–521. <https://doi.org/10.1177/1043463108096790>
- Kim, E., & Park, S. (2019). The role of transformational leadership in citizenship behavior. Organizational learning and interpersonal trust as mediators. *International Journal of Manpower*, 40 (7): 1347–1360. <https://doi-org.proxy1.library.jhu.edu/10.1108/IJM-12-2018-0413>

- Putnam R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon & Schuster.
- Simpson, J. A. (2007). Foundations of interpersonal trust. *Social psychology: Handbook of basic principles*, 2, 587–60.
- Spadaro, G., Gangl, K., Jan-Willem, V. P., Paul A M Van, L., & Mosso, C. O. (2020). Enhancing feelings of security: How institutional trust promotes interpersonal trust. *PLoS One*, 15(9). <https://doi.org/10.1371/journal.pone.0237934>.
- Twenge, J. M., Campbell, W. K., & Carter, N. T. (2014). Declines in Trust in Others and Confidence in Institutions Among American Adults and Late Adolescents, 1972–2012. *Psychological Science*, 25(10), 1914–1923. <https://doi.org/10.1177/0956797614545133>
- Yuan, H., Long, Q., Huang, G., Huang, L., Luo, S. (2022). Different roles of interpersonal trust and institutional trust in COVID-19 pandemic control. *Social Science & Medicine*, 293. <https://doi.org/10.1016/j.socscimed.2021.114677>.