Racial Discrimination and its Negative Relationship with Trust in Political Institutions: A European Immigrant Study

Bachelor Thesis [International Bachelor Economics and Business Economics]

Name student:	Gregor Kloepfer
Student ID number:	564031
Supervisor:	Dr. Anne Boring
Second assessor:	Dr. Anna Baiardi

ERASMUS UNIVERSITY ROTTERDAM
Erasmus School of Economics

Date final version: 04. August 2023

Abstract

This thesis explores the correlation between individual's experiences of racial (group) discrimination and their trust in political institutions. The work is based on data from 2008 up to 2018 levied by the European Social Survey. Accounting for a set of socio-economic demographics and extending the OLS model by country and wave fixed effects as well as an interaction term between the two, I find a highly significant negative relationship between discrimination and trust in our institutions. This association holds regardless of the ethnicity of the individual. The study continues to investigate the nature of this correlation within Europe: By analyzing mechanisms such as personal safety concerns and the role duration of residency in the host country for migrants has in this effect, this research sheds light on the dynamics underlying the erosion of trust. The fear of becoming a victim of crime appears to exhibit no conjoint effect with discrimination on such trust levels. In an analysis solely regarding migrants, I found that the negative effect of discrimination increases, the longer an individual resides in their host country.

Contents

1 Introduction

Over the last decades continuous immigration has changed the demographic landscape of Western Europe (Dancygier & Laitin, 2014). This development has in turn posed challenges to European governments and stirred discussion about racial identity and discrimination. Such migration and its consequences have supported the rise of right-wing parties across Europe (Léonard & Kaunert, 2019). Political trust towards our governments has decreased over the last decades (Algan et al., 2017). Consequently, this distrust can manifest a detrimental effect in different ways, ultimately debilitating the stability of our societal systems: Mistrust can lead to radicalization in voting behavior and the upswing of so called challenger parties, which in turn might further fuel mistrust (Bélanger, 2017; Hooghe & Dassonneville, 2018). Furthermore, lack of confidence in political institutions negatively affects the propensity to vote as Bélanger and Nadeau (2005) show on the example of Canada. As Grönlund and Setälä (2007) argue, political trust positively increases the likelihood to vote and the people's satisfaction with democracy, both crucial for national stability. This is likely to hold true in the European context. Lower propensity to vote in turn poses difficulties for the functioning of our societies as a whole. Lower voter participation and political fragmentation will reduce political effectiveness and are therefore unfavourable, highlighting the social relevance of my research: Thus, the question how trust in the political apparatus and discrimination are related within this complex dynamic might be raised. By analysing the relationship between discrimination on the one side and trust in public institutions on the other I outline a different angle towards tackling political distrust.

In my bachelor thesis I aim at answering a question of high social relevance: To what extent does perceived discrimination based on racial indicators influence trust in the political institutions of European countries?

Different researchers have investigated the relation between racial discrimination and confidence (in this context taken as synonymous to trust) in political institutions, though work in this field is not extensive. There are at least two noteworthy contributions to literature: For one, Röder and Mühlau (2011) examine the correlation between both on basis of European data in the early 2000s. They find, amongst others, that discrimination exhibits a negative effect on trust in public institutions in a multi-level analysis. However, their analysis is focused on disentangling the effect of migrant status. Using Latin-American data Levitt (2015) likewise shows that discrimination displays a negative relationship with trust in political institutions. He finds, that discrimination in bureaucratic processes is more detrimental than discrimination in private circumstances.
With this thesis I will also shed light onto channels through which confidence is built - or lost. I find, that racially motivated group discrimination has a significant negative correlation with trust in political institutions, for those who experience it. Furthermore, ethnic background of the individual does not seem to influence the relationship between discrimination and trust in political institutions: Coefficient estimations divided by ethnicity do not differ significantly. Previous literature has found that first-generation migrants

display higher trust levels, and a lower magnitude in the effect of discrimination on such confidence. This difference was drawn back to optimistic evaluations of first-generation immigrants (Maxwell, 2010; Röder & Mühlau, 2011): Individuals that recently migrated tend to more positively evaluate their host country. By inclusion of an interaction term, I show that over time optimistic evaluations diminish, the longer an individual has resided in their respective host country. Thus, the longer an individual lives in a country and feels group discrimination, the stronger such discrimination negatively affects his/her trust. I will contribute to the literature by extending the research to the latest available data in Europe from the European Social Survey (ESS), whilst furthermore diving into a perceptive mechanism that might drive those results. The division by ethnicity presented in this paper and the analysis considering time spent in a host country regarding migrants is to my knowledge unprecedented in this context. With those findings the paper goes beyond examining the negative effect discrimination itself exhibits on economic and psychological outcomes (Haagsma, 1993; Liebkind & Jasinskaja-Lahti, 2000; Schmitt et al., 2014; Stiglitz, 1973) and extends research on the negative role of intolerance in the formation of public distrust.

2 Theoretical Framework and Related Literature

In a first step the central term "discrimination" needs to be defined. Commonly, discrimination refers to the act of mistreating an individual relative to others based on innate or intrinsic characteristics of their social group (Lippert-Rasmussen, 2006). Bertrand and Duflo (2017) define discrimination in an economic context as differential treatment between individuals belonging to a minority compared to majority members. This differential treatment has to hold in comparable situations, given that traits are alike in every other aspect. For the analysis within this thesis discrimination will be examined on racially motivated discrimination of the individual‘s group in accordance with Bertrand and Duflo (2017) and my underlying research question that aims at investigating group discrimination in the context of racial indicators.

In order to be able to understand the potential effect discrimination might have on trust in political institutions, one must moreover understand how trust in political institutions is formed. Academia does not find unanimity in that. There are two prominent approaches toward the formation of political confidence (Mishler & Rose, 2001; Newton & Norris, 2000): For one social (or cultural) theories present the viewpoint that this trust is exogenous to the political sphere, but rather originates from cultural norms and enculturation in childhood. Opposing to this the institutional performance model considers trust a result of an individual's evaluation of the governmental apparatus. Subsequently, this trust is seen as a reflection of economic and social performance of government organs. Contradictory to the social theories, trust is in this context not seen as a result of broader societal circumstances, but a projection of actual government performance, thus not exogenous. Newton and Norris (2000) found strong quantitative evidence in favour of the institutional performance model, whilst finding no support for the social theories on explaining trust. I will therefore base

my theoretical framework, analysis and mechanization on the institutional model of political trust.

How do these two aspects interrelate? Discrimination is socially unjust and perceived as such by victimized individuals as for example Johnstone and Kanitsaki (2008) argue at the example of elderly immigrants in Australia. Taking a normative stance, governments are responsible for fighting social injustice and ensuring peace within countries. Individuals who experience discrimination of their own or their group might perceive this as under-performance of the government. This under-performance would consequently be reflected in lower trust towards political institutions given the institutional performance model of trust outlined above. From another angle, discrimination might also arise through direct government contact, such as bureaucratic processes as for example Borjas (1982), Byron and Roscigno (2019) or White et al. (2015) find and therefore shape trust via a direct evaluation of government functioning. This leads me to my first hypothesis.

H1: Perceived discrimination on racial motives of an individual's group has a negative effect on trust in the government institutions.

There is a moderate pool of literature that has studied said relationship. Nonetheless, there are to my knowledge no causal studies with a sound identification strategy. Some studies examine a causal relationship between discrimination and integration or national identification, such as Fouka (2019) or Jasinskaja-Lahti et al. (2009), which in turn is closely related to the research question presented in this paper. In direct relation to my specific research question, there exist several notable papers, only one of which has attempted at establishing a causal relationship in a very recent publication. Tyrberg (2023) uses an information-provision experiment to prime participants about discrimination related statements and thus create exogenous variation in beliefs. By targeting Arabic user profiles in Sweden and Germany via online advertisement participants are recruited; this already poses a problem for the interpretation of their results given potential selection-bias, as individuals are free to self-select into the survey. Furthermore, from this research design only individuals using certain social media platforms could be approached. Tyrberg (2023) in their causal evaluation find a positive effect of discrimination on confidence in the governmental apparatus. They suggest that these contradictive and counterintuitive findings might be the result of causing positive reflection upon addressing discrimination in their survey.
Furthermore, most closely related to my thesis, stands the work of Röder and Mühlau (2011). The authors examine the correlation between minority-affiliation, discrimination and trust in public institutions whilst considering the quality of institutions. Furthermore, they base their analysis on three levels: individual, regional and country level. That poses the advantage of being able to control for quality of governance, legislative differences and regional disparities. In that they find a negative effect of discrimination, in line with my first Hypothesis. Their study focuses on migrants: In particular, they distinguish trust levels between first- and second-generation migrants. Their findings suggest, that less trust prevails in the second generation,

compared to the first one or natives. Concluding, Röder and Mühlau (2011) argue that this difference can be explained by different expectations and cultural norms rooting in origin countries, resulting in optimistic evaluations in the first generation. Lastly, in another - Latin-America based - study evidence was found that individuals who faced discrimination themselves distrust government institutions more than others (Levitt, 2015). Here discrimination via direct governmental procedures proved to be a significantly bigger factor than discrimination in private settings. Researchers have not examined any heterogeneity analysis with regards to ethnicity throughout these papers. Röder and Mühlau (2011) accounted for ethnic background in the context of social status controls: The authors made a distinction between minority and non-white minority. This work aims at further disentangling and understanding the relationship by examining ethnic groups separately, thus gaining a deeper comprehension of discrimination and trust in public institutions.
Continuing, one might wonder which mechanisms are relevant in this context. Does discrimination solely affect the level of trust in political institutions, or can we indeed identify a distinct channel for this relationship to unfold? This analysis strives to go beyond what literature so far has examined in this context by considering two potential perceptive, in contrast to institutional, mechanisms for trust in the government. My second hypothesis is formulated as follows:

H2: The individuals' fear of becoming a victim of a violent crime and a consequent reduction in quality of life moderates the relationship between discrimination and political trust, such that higher levels of discrimination lead to lower levels of political trust through the mechanism of increased perception of unsafety.

One can build a theoretical framework for the potential mechanism: Assurance of public safety is one of the crucial tasks of democratic governments in our modern normative understanding (Frieden, 2013; Tang et al., 2004). Furthermore, racial discrimination might escalate into violence as Dancygier and Laitin (2014) describes. The individual is thus likely to assume responsibility of the government to actively reduce or prevent such discrimination. If this feeling of safety is threatened via discrimination, subjects might reflect this in their evaluation of institutions and thus display lower levels of trust. One potential threat is if individuals overestimate group discrimination, because they have little trust in the government. Thus, reverse causality might shape this effect.

Lastly, in order to deepen our comprehension of the formation of political trust, I investigate the correlation between this phenomenon and the length of time migrants have resided in their host countries. As demonstrated in a study by Maxwell (2010), immigrants' tendency to exhibit higher confidence levels despite contradicting intuitive reasoning can be attributed to what is referred to as optimistic evaluations. In his empirical evaluation he furthermore finds that first-generation migrants show significantly higher trust than second-generation migrants or natives. Similar results have been found by Röder and Mühlau (2011), as outlined above. I strive to investigate what role time plays in this: Is the inter-generational effect found

in previous literature driven by the passage of time (thus acclimatisation) or distinguishable, as second-generation individuals are born and raised in a given country and thus behave differently? Given the theory of optimistic evaluations, one can expect an increase in sensitivity towards discrimination with regards to said trust over time. With this thesis I strive to go beyond the previous distinction undertaken within the field and specifically analyse how years lived in the country of residence moderates the relationship between discrimination and confidence in public institutions:

H3: The relationship between discrimination and trust in political institutions is stronger, the longer the migrated individual has resided in their host country.

3 Data and Methodology

3.1 Data

Through the ESS I obtained a detailed questionnaire regarding individuals' perspective on societal issues and a set of demographic control variables. The survey is conducted bi-yearly across different European countries and thus provides us with a repeated cross-sectional dataset. Their data collection is based on random sampling and given their comparably high answer rate the ESS proves useful for the means of this paper. The data collectors also place special emphasis on translating the questions as to minimize any potential misunderstandings that may arise from administering the survey in various countries with different languages. It appears worth mentioning, that in order to be invited for the ESS one must be registered in a country and speak the respective national language. By default, the survey thus excludes unregistered migrants. All in all, the ESS appears to be a reliable dataset for the purpose of this thesis. My analysis is based on the survey rounds between 2008 and 2018, and includes all countries with continuous surveying over that period: Switzerland, the Czech Republic, Germany, Estonia, Spain, Finland, France, Great Britain, Hungary, Ireland, the Netherlands, Norway, Portugal, Sweden and Slovenia. This leaves roughly 173,000 observations in total, where annual rounds vary between 27,000 and 30,000.

3.1.1 Independent Variables

The main independent variable of interest in this thesis will be discrimination. In contrast to Röder and Mühlau (2011), I consider discrimination based on racial indicators and do not include discrimination regarding age, disability or gender. Particularly, I will use the variables that survey "On what grounds is your group discriminated against?" for ethnic group, religion, nationality, language or race. My discrimination variable will thus be a binary indicator, taking value 1 if at least one of the discrimination questions as outlined above has been marked and 0 otherwise. This selection of discrimination types should give us a clear picture of

Table 3.1: Descriptive Statistics of the Main Variables by Groups

	Mean	**Minority**	**Non-Minority**	**P-value**	**Discriminated**	**Not-Discriminated**	**P-value**
Discrimination (%)	3.41	29.4***	1.9	0.00	n/a	n/a	n/a
	(0.18)	(0.46)	(0.14)		(n/a)	(n/a)	
Trust in Politicians	3.69	3.82***	3.69	0.00	3.12***	3.71	0.00
	(2.38)	(2.53)	(2.38)		(2.46)	(2.38)	
Trust in Police	6.42	6.171***	6.44	0.00	5.55***	6.45	0.00
	(2.36)	(2.63)	(2.34)		(2.76)	(2.34)	
Trust in Political Parties	3.68	3.86***	3.68	0.00	3.20***	3.70	0.00
	(2.34)	(2.47)	(2.33)		(2.39)	(2.34)	
Trust in Parliament	4.61	4.713***	4.61	0.00	4.01***	4.63	0.00
	(2.54)	(2.70)	(2.53)		(2.67)	(2.54)	
Trust in Legal System	5.40	5.52***	5.40	0.00	4.80***	5.42	0.00
	(2.58)	(2.71)	(2.57)		(2.78)	(2.57)	
Index	4.77	4.79	4.77	0.25	4.11***	4.79	0.00
	(2.03)	(2.17)	(2.02)		(2.16)	(2.03)	
Female (%)	52.75	51.83*	52.74	0.09	51.50**	52.79	0.05
	(0.50)	(0.50)	(0.50)		(0.50)	(0.50)	
Age	49.23	43.67***	49.56	0.00	42.23***	49.48	0.00
	(18.67)	(17.17)	(18.68)		(16.45)	(18.69)	
Education Years	12.78	12.94***	12.79	0.00	13.17***	12.77	0.00
	(4.16)	(4.30)	(4.15)		(4.40)	(4.15)	
Minority (%)	5.36	n/a	n/a	n/a	46.70***	3.91	0.00
	(0.22)	(n/a)	(n/a)		(0.50)	(0.19)	
Maximum Observations	172,540	9,141	161,792	170,933	5.887	166,653	172,540

*Note: Age observations above 100 years were excluded for all computations. Binary variables are indicated as a percentage. Standard deviations are indicated in parentheses. The p-values testing for difference in means (different from Non-Minority or Not-Discriminated respectively) are indicated in columns . Corresponding significance levels are indicated as follows according to the appropriate two-sample t-test: * p<0.1, ** p<0.05 and *** p<0.01.*

Table 3.2: Descriptive Statistics of Household Income in Deciles

	Mean	**Minority**	**Non-Minority**	**Discriminated**	**Not-Discriminated**
Household Income 1st (%)	9.56	13.40	9.30	14.13	9.41
	(0.29)	(0.34)	(0.29)	(0.36)	(0.29)
Household Income 2nd (%)	10.96	12.68	10.84	13.35	10.87
	(0.31)	(0.33)	(0.31)	(0.34)	(0.31)
Household Income 3rd (%)	10.97	12.35	10.87	12.65	10.92
	(0.31)	(0.33)	(0.31)	(0.33)	(0.31)
Household Income 4th (%)	11.01	11.37	11.00	10.70	11.02
	(0.31)	(0.32)	(0.31)	(0.31)	(0.31)
Household Income 5th (%)	10.79	10.61	10.80	10.10	10.81
	(0.31)	(0.31)	(0.31)	(0.30)	(0.31)
Household Income 6th (%)	10.17	9.48	10.20	9.57	10.19
	(0.30)	(0.29)	(0.30)	(0.29)	(0.30)
Household Income 7th (%)	10.04	9.11	10.11	8.37	10.10
	(0.30)	(0.29)	(0.30)	(0.28)	(0.30)
Household Income 8th (%)	9.77	8.05	9.89	7.86	9.83
	(0.30)	(0.27)	(0.30)	(0.27)	(0.30)
Household Income 9th (%)	8.46	6.55	8.58	6.81	8.52
	(0.28)	(0.25)	(0.28)	(0.25)	(0.28)
Household Income 10th (%)	8.28	6.40	8.40	6.44	8.34
	(0.28)	(0.24)	(0.28)	(0.25)	(0.28)
Maximum Observations	138,449	7,143	130,187	4,671	133,778

Note: Age observations above 100 years were excluded for all computations. Household income is indicated in decile-affiliation. Standard deviations are indicated in parentheses.

the influence of racial discrimination. Thus this paper deals with perceived group discrimination of mostly migrants, but also encompasses some other groups: For example, also native individuals might report such experienced discrimination, as the variable is based on self-reporting of the respondent's perception. Tables 3.1 and 3.2 display the descriptive statistics for all main variables divided by groups. In this subsection we consider the main variable of interest, the compound comprising the racial discrimination indicators and its components, as outlined above. Overall, 3.4 % of individuals report such discrimination against their respective group. Among minority individuals discrimination is significantly higher, as 29.4 % report such group discrimination, compared to 1.9 % in the non-minority group. The data for minimum, maximum and median values appears intuitive as displayed in more detail in Pane (A) of Appendix Table A.1: With a small percentage of discriminated individuals the median has to equal 0, given that this variable is coded binary. For a binary variable to have a mean unequal to 0 or 1, one most have a minimum of 0 and a maximum of 1, indicating that both states are observed. In a subsequent robustness analysis, I will replace discrimination with the variable *prejudice* to estimate coefficients. Prejudice is measured on a scale from 0, never, to 4, very often ("How often, in the past year, anyone has shown prejudice against you or treated you unfairly because of your race or ethnic background?"). From Panel (B) it becomes apparent, that very few individuals experienced prejudice the survey year judging by the low mean and median values of 0.244 and 0, respectively.

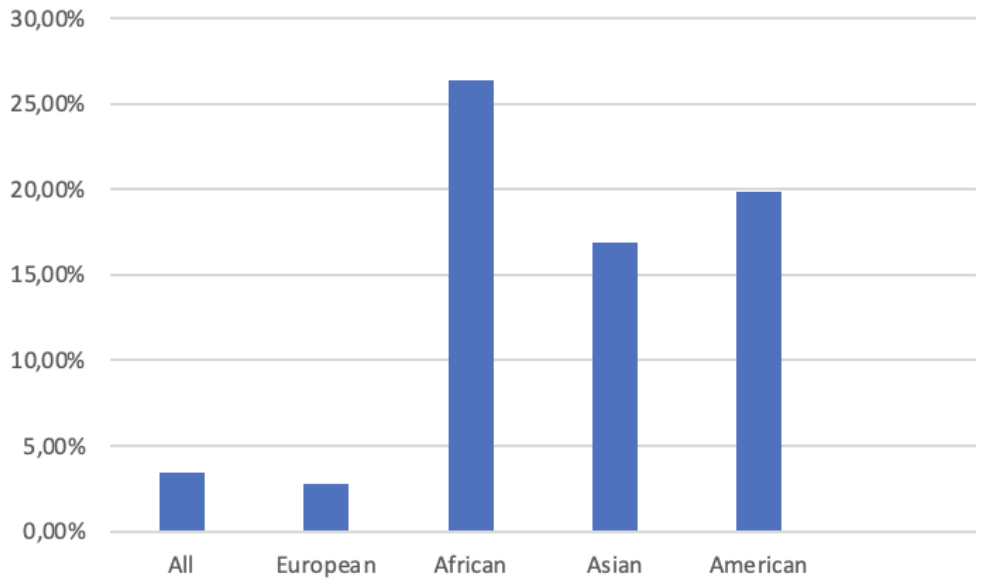

Figure 3.1: Percentage of Discriminated Individuals by Ethnicity.

Furthermore, the ESS data provides information on self-identified ancestry. A sub-division based on ethnic groups enables a coefficient estimation for different ethnicities. As single cohorts identified within the ESS tend to show a low number of observations, I grouped the ethnicities as follows: The Middle East and Africa form "African". Central, South as well as South East Asia are "Asian" and lastly "American" comprises

North and South America as well as Australasia and the Caribbean. This division aims at approximating cultural norms, which evidently disperse over geographic distance, whilst clustering enough observations for statistical confidence in the coefficient estimation within one group. From Figure 3.1 it becomes apparent that discrimination is heavily concentrated among non-European individuals. Thus, it appears likely that effect and effect size might differ. This will be analysed under the examination of Hypothesis 1. The trend that becomes evident can only be based on data from ESS surveys from 2014 to '18.
Furthermore, I will use controls at the individual level within the regression framework as elaborated upon in Section 3.2. I will include household's income, given as deciles, age, in years and education, likewise in years (of full-time education completed). The model will furthermore incorporate country dummies and a binary variable indicating if the individual belongs to an ethnic minority group within their country, constituting a highly relevant control variable. After all, people belonging to minorities are being discriminated against more as Table 3.1 shows, whilst displaying different trust levels due to various socio-economic factors. In Section 5, I will extend the model by one additional control variable, *free media*: "To what extent you think each of these statements applies in your country. The media in your country provide citizens with reliable information to judge the government". It is indicated on a scale from 0, to 10, ranging from "does not apply at all" to "applies completely".

Tables 3.1, 3.2 and Appendix Table A.1 outline the descriptive statistics for the main control variables used to answer the central research question of this paper. The average individual is 42 years old and judging by the median value being larger than the mean the age distribution appears right-skewed, which seems plausible; one would expect more young individuals in any representative survey, as population is naturally distributed over life-time. The oldest individual is 123 years of age, which seems unlikely. In my analysis I will exclude people aged over 100 and present in the Appendix that results merely differ by inclusion of all observations. Given that household income is only available in deciles (as in relation to the respective home country) throughout the ESS, it will be added as a categorical variable. The corresponding descriptives can be found seperately, in Table 3.2. It is noteworthy though that the number of observations for this control is substantially lower than the for the others. Furthermore, observations for lower income deciles generally tend to be smaller. This also holds for sub-groups. That can be the case, as the individual reports their income to the ESS: If the ESS then computes the corresponding decile based on official data (and not their levied data), such trends might become apparent. In turn, this would entail, that poorer individuals do not report their income as frequently as richer ones, causing this pattern. Such underrepresentation poses a hazard to the analysis, as by inclusion of this control lower-income individuals are underrepresented. Therefore, I will demonstrate that the effect also holds without this control in the latter statistical examination. The average individual in the dataset went through nearly 13 years of full-time education, which for most countries roughly yields high-school education. Overall, women make up 52.8 % of the observations. Lastly, Table 3.1 indicates that 5.3 % belong to a minority ethnic group in their respective countries. Naturally, the percentage

of minority belonging is significantly higher amongst discriminated individuals with 46.7 %, The degree to which most individuals perceive media in their countries to be reliable in judging the government is fairly high, with a mean value of 6.213 and a median of 6.

To test Hypothesis 2, I will extend the regression model by a potential moderator. I look at the respondent's fear of becoming a victim of violence and its subsequent effect on living quality (*fear violence*): "Worry about becoming a victim of crime has ... effect on quality of life.". This variable takes value 1 for serious, 2 for some and 3 for no effect and is only available in 2008 and 2010. The number of observations is thus substantially lower than for previously introduced variables. Panel (B) of Table A.1 displays a mean value of 2.561 and a median of 3, indicating that relatively few individuals are seriously worried in that context.

In examining heterogeneous effects of the time an individual has spent in a host country in the relationship between discrimination and confidence in public institutions, a sub-group of migrants is considered. The ESS provides us with the year of arrival in the new country and I computed the years that the respondent has now resided after migrating. Panel (B) of Appendix Table A.1 shows that the average migrant has resided in their host country for roughly 27 years, whereas most observations appear around the lower end, as of a median of 23. The maximum value appears high. As for the main analysis, observations will likewise be limited to individuals of less than 100 years of age in the heterogeneity analysis, excluding such outliers.

3.1.2 Dependent Variables

For the statistical analysis following in this paper I will use five variables relating to trust in political institutions, as elaborated upon in Section 3.2 separately and as an averaged-out index. These five questions all follow the same framework: "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. Firstly...". After that individuals are asked to fill in their corresponding opinion regarding 1) politicians, 2) police, 3) political parties, 4) the country's parliament and 5) the legal system. These variables give a good picture of the individual's trust towards government institutions and subsequently enable an analysis of the effect of racial discrimination on those trust levels.

Panel (B) of Appendix Table A.1 lays out the descriptive statistics for the outcome variables of the analyses undertaken in this paper in detail. The corresponding mean values indicate substantially higher trust in the police and the legal system than in political parties, politicians and a countries parliament. Naturally, as all missing observations for the individual questions were dropped before the creation of the averaged out variable *index*, the number observations is lower. A mean value of 4.765 indicates overall mediocre trust in government institutions. As of Table 3.1 differences in trust levels between minority and non-minority as well as discriminated and not-discriminated individuals are significant. Only *index* does not show a substantial divergence regarding the minority group. This can happen as ambiguous effects for the single trust variables cancel each other out.

3.2 Methods

To test the first and most fundamental hypothesis, I will implement a multiple regression framework in order to analyse the effect racial discrimination has on confidence in political institutions. In equation (1) Y_i is a composite index for trust in political institutions. Based on high correlation examined via Cronbach's alpha I will take the average between five different ordinal variables displaying the individuals trust in the political apparatus on a scale from 0 (no trust at all) to 10 (complete trust). The index variable will display the average trust levels of the respondent in a country's legal system, police, politicians, political parties, and the respective national parliament. D_i is a dummy variable indicating personally perceived racial discrimination of the respondents group. It takes value 1 if the discrimination based on the individual's religion, ethnic group, nationality, language, or race has been noted. Thus, ρ is the coefficient I am interested in investigating. Furthermore, my model includes a control vector V_i comprising all controls added to the analysis. The model is then extended to include country fixed effects C and wave fixed effects W. Lastly, equation (1) includes a constant α and error term ε_i. Extending the analysis, an interaction effect between country and wave fixed effects will be implemented. A comparable regression equation including such an interaction term is displayed in equation (2) later on. Thus, differential levels of trust between countries for certain years are accounted for.

$$Y_i = \alpha + \rho D_i + \chi V_i + \kappa C + \lambda W + \varepsilon_i \tag{1}$$

To support this analysis I will perform regressions on the five factors that make up the index variable one by one. The regression equation from (1) will not change, but further include an interaction term between country and wave fixed effects. Each regression, as the main one, will be based on ordinary least squares (OLS) statistical computation as a linear regression model. In all these regressions I will include age, education years, household income and ethnic minority status as controls. Furthermore, as my study comprises 15 countries that may vastly differ, country fixed effects will be included as well. This is particularly important, as the estimator found by means of OLS might suffer from omitted variable bias (OVB): The exclusion of confounders (variables that influence both the outcome and the treatment) can practically not be ruled out. In that, omitted variables are considered confounders. Their existence, whilst not accounting for them in the regression analysis might consequently result in a biased estimator, which in turn restricts the validity of the findings. In that case the conditional independence assumption does not hold, which leads to endogeneity: An omitted variable reflected in the error term ε leads to a correlation between the error term and the explanatory variable, undermining the potential of causal inference of the regression. Therefore, I will include controls, such as age, household income, education years and minority status in order to gain more confidence over the estimator. Nevertheless, the presence of further confounders cannot be excluded, thus the estimator might be biased.

As some of the individuals seem peculiarly old, I will cut off the observations of age above 100 for the all analyses, unless specified otherwise. I will show in the Appendix that those results do not differ notably by inclusion of all ages. On the note of data-sorting missing observations for either of the variables included in each model will be dropped. Consequently, the number of observations will differ from model to model. This poses the advantage of including the utmost data points for each of the analyses performed.

Table 3.3: Cronbach's Alpha on Political Trust

	Alpha	**Average interim covariance**	**Observations**
Trust in politicians	0.848	3.519	170,475
Trust in police	0.898	4.184	171,835
Trust in country's parliament	0.854	3.476	168,799
Trust in political parties	0.855	3.634	169,613
Trust in legal system	0.865	3.571	169,562
Test scale	0.889	3.676	

Note: The data reflects ESS rounds 4 to 9.

For the creation of an index variable, comprising all five trust indicators outlined above, Cronbach's alpha is a useful statistical tool: It is a measure of internal consistency, meaning it statistically evaluates how closely these items are interrelated. This tool helps determining to what extent these questions measure an interchangeable characteristic - expressed on a scale from 0 to 1. This measure increases with the number of items included in its computation: Hence, one has to attain the right balance of items included. Generally, higher values indicate more consistency. Table 3.3 suggests that indeed all five questions are closely interrelated. Respective values for alpha between 0.8 and 0.9 suggest good reliability of the items as Gliem and Gliem (2003) lay out. This in turn makes the use of an averaged-out index plausible as to reflect all five variables.

With regards to the robustness analyses of section 5, I will thereafter introduce an alternative indicator for discrimination and add a previously omitted variable to the models. In order to check for the robustness of those results, I will introduce one alternative measure for discrimination, *prejudice*. Due to the different formulation of this question, results may differ. Prejudice is nevertheless a good indicator for discrimination, as the latter is often based on the former. All in all, one can expect a weaker effect of *prejudice*, and given I find significant coefficients, gain further support for the first Hypothesis. Subsequently, I will demonstrate how the coefficient of *discrimination* changes by inclusion of one control variable: *free media*. A control variable should both influence outcome and treatment. As treatment is perceived discrimination against the respondents group, this perception might depend on media coverage and the effect of the individual's beliefs about the freedom of media criticizing the government. In turn, the degree to which the respondent views the media as free and able to exercise criticism upon the state, might shape the trust in the state. If a government exercises more control over media, effectively restriction their coverage, trust in the government is likely to decrease. Lastly, I will implement the Oster method for estimating the extent of OVB (Oster,

2019). This method enables the estimation of coefficients based on observables, whilst taking the existence of unobservables into account. The approach builds on the notion that one can infer effects of unobservables based on the selection of observed controls. It helps us understand to what extent a coefficient is sensitive to the omission of other confounders and subsequently provide more confidence in interpretation.

Thereafter, I explore one channel through which the correlation of discrimination on trust might form. In order to explore a potential mechanism of the main effect studied within this paper, I will introduce a moderator in my regression analysis. A moderator is considered a variable that shapes the relationship between two other variables. In order to examine if discrimination exhibits a conjoint predictive power with *fear violence* an interaction term between the independent variable *discrimination* and the mechanism is introduced. The regression equation is similar as in equation (2), where an interaction term is displayed. In all regression analyses controls will be included as of for the main model: Minority status, age, gender, household income, education, country fixed effects, wave fixed effects and an interaction between the latter two. In that analysis the mechanism was newly encoded to take form of a binary variable: *Fear violence* is 0 if the individual has never experienced such a detrimental feeling and 1 if that was ever the case. This binary recoding allows for a more plausible interpretation of the interaction term. Similar to estimation (1) OVB cannot be excluded which limits in particular the causal interpretability of the findings. To evaluate Hypothesis H2, *fear violence* will first be examined. If *fear violence* exhibits significant conjoint predictive power for trust together with discrimination, its role as a mechanism can be shown.

Lastly, I will continue exploring the relationship between the two factors examined in this paper from a different perspective, by performing a heterogeneity analysis. This serves the evaluation of Hypothesis 3. Figure 3.2 shows the confidence levels decrease over the time an individual has lived in a given country. This trend, is in turn likely to shape the effect discrimination has on trust. In that analysis, I will extend the main model indicated through equation (1) by inclusion of the years an individual has resided in their host country since moving there (*years in country*) and an interaction effect between this independent variable and *discrimination*. By definition, this analysis is limited to individuals who have moved to their country of residence. The terms of regression equation (2) are to be interpreted as for the main model with exception of: I_i refers to the years lived in the host country by the immigrated individuals with corresponding coefficient ϕ and the interaction effect between *years in country* and *discrimination* with coefficient of interest γ.

$$Y_i = \alpha + \rho D_i + \chi V_i + \kappa C + \lambda W + \phi I_i + \gamma T_i \times I_i + \varepsilon_i \tag{2}$$

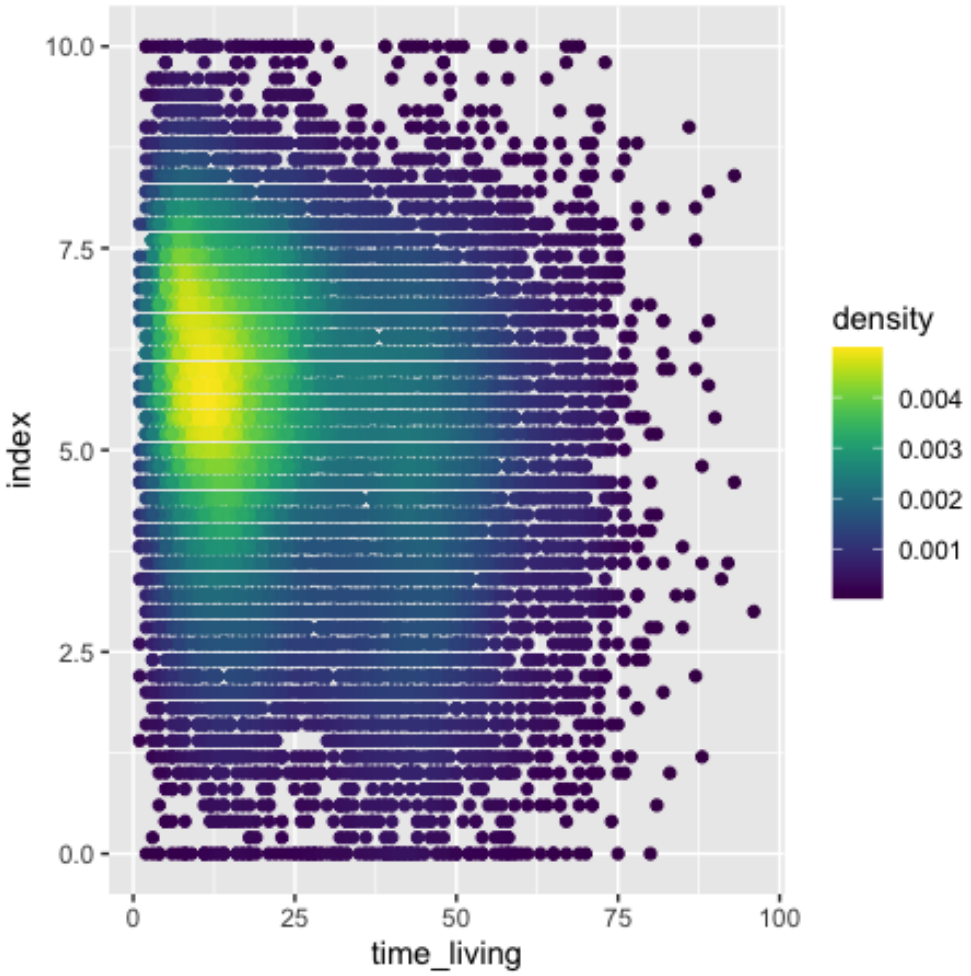

Figure 3.2: Heatmap of Years Lived in a Host Country and Trust in Political Institutions (Index).

4 Results

4.1 Main effects

The regression estimations from Table 4.1 show the results testing my main hypothesis: Racial discrimination against the individual's ethnic group, religion, nationality, language or race leads to lower trust in the political institutions. Whilst accounting for a set of standard demographics, country fixed effects and wave fixed effects the null-hypothesis of the coefficient of discrimination being equal to 0 can be rejected in all five models at a 1 % significance level. The coefficient of *discrimination* differs thus significantly from 0, not only for the index variable comprising trust in political institutions, but also for trust in politicians, the police, the respective country's parliament, political parties and legal system, as Table 4.2 displays. Firstly, only considering estimations as of Table 4.1 column (1), the coefficient of *discrimination* is -0.675 in the simplest regression, only considering one independent variable. In that only 0.4 % of variation in trust is explained by the treatment, as R^2 shows. Extending the model by controls as of column (2), country fixed effects in

column (3), wave fixed effects in column (4) and lastly an interaction between country and ESS-round in column (5) the coefficient of interest appears marginally larger. The variation of trust captured by the model increases up to 23.1 %, as the value of R^2 in column (5) indicates.

Going over to Table 4.2 the single trust measurements are considered. The effect of *discrimination* varies in each model, ranging from -0.581, where *political parties* is the dependent variable, to -0.816, in case *police* is considered the outcome variable. This is particularly noteworthy, as confidence in police shows the highest mean and median trust values overall, but the most detrimental effect of discrimination. Continuing, most importantly for the first hypothesis is the analysis overspanning all five trust indicators in one index variable based on the computation of Cronbach's alpha. Though, the differences in coefficients for the single trust variables do not differ significantly from the estimation of the most compehensive *index* model, as Appendix Table A.4 demostrates. The interpretation is based on the most comprehensive models, displayed in column (5) of Table 4.1: Perceived racially motivated discrimination of the individual's group decreases trust in political institutions on average by 0.702 (on a 10-point scale) as compared to individuals who have not reported such discrimination. This estimator corresponds to ρ stipulated in equation (1). In a similar manner coefficient estimations are to be interpreted for the simpler models of columns (1) to (4) and for the five subsequent regression estimations, where the single trust factors are considered as independents. Furthermore, Appendix Table A.2 shows that these coefficients merely change by inclusion of all age groups. The estimations using the trust average as dependent variable show higher values regarding R^2 further supporting the use of *index* as independent variable of interest and inference. Nevertheless, R^2 metrics are generally low in all variations of the model. This has to be taken as a drawback of the analysis. All in all, this nonetheless leads to the conclusion that Hypothesis 1 can be accepted. However, due to potential OVB these results cannot be interpreted causally. In section 5 I will introduce an alternative measure for discrimination to gain further confidence and add a control variable to the model to see how the estimate coefficient changes.

It appears noteworthy that the estimator of *female* changes significance between model alterations. In Table 4.1 it solely differs significantly from 0 in column (2), the model which does not account for country and wave fixed effects. Columns (3) to (5) show that in more comprehensive analyses with regards to the trust index gender does not play a determining role. A more detailled understanding follows from the results in Table 4.2, which are computed as in column (5) of the previous Table: The effect of gender is highly significant at 1 % in all models, where the five single trust variables are considered. *Female* shows a positive correlation with trust in politicians, the police and political parties, whilst being negatively correlated with confidence in a country's parliament and legal system. Thus, the overall predictive power on *index* appears insignificant, given the ambiguous effect direction in Table 4.2.

Table 4.1: OLS Regression Results with Trust Index as Independent Variable

	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Discrimination	-0.675***	-0.739***	-0.708***	-0.716***	-0.702***
	(0.030)	(0.035)	(0.033)	(0.033)	(0.033)
Female		-0.046***	0.002	-0.004	0.001
		(0.011)	(0.020)	(0.010)	(0.010)
Age		0.003***	0.002***	0.001***	-0.002***
		(0.000)	(0.000)	(0.000)	(0.000)
Education Years		0.055***	0.042***	0.039***	0.040***
		(0.002)	(0.001)	(0.001)	(0.001)
Minority Status		0.286***	0.221***	0.216***	0.216***
		(0.029)	(0.027)	(0.027)	(0.026)
Household Income		Yes	Yes	Yes	Yes
Country Fixed Effects			Yes	Yes	Yes
Wave Fixed Effects				Yes	Yes
Country x Wave					Yes
Constant	4.788***	3.565***	2.573***	5.020***	4.815***
	(0.005)	(0.034)	(0.038)	(0.036)	(0.052)
R^2	0.004	0.050	0.212	0.219	0.231
Observations	164,691	132,011	132,011	132,011	132,011

*Note: Different model alterations are shown in columns. Independent variables and their corresponding coefficients in rows. Discrimination, Female and Minority Status are binary variables. Age is measured in years, Education Years as years of full-time education completed. Household income is measured in deciles and included as a categorical variable. The dependent variable index is given on a scale from 0 (no trust) to 10 (complete trust). Standard errors are given in parentheses. Significance levels are indicated as follows: * p<0.1, ** p<0.05 and *** p<0.01.*

Table 4.2: OLS Regression Results: Different Dependent Trust Variables

	Politicians	**Police**	**Parliament**	**Political Parties**	**Legal system**
Discrimination	-0.645***	-0.816***	-0.672***	-0.581***	-0.746***
	(0.037)	(0.042)	(0.040)	(0.036)	(0.042)
Female	0.062***	0.120***	-0.122***	0.037***	-0.091***
	(0.012)	(0.012)	(0.013)	(0.011)	(0.013)
Age	0.003***	0.005***	0.002***	-0.000	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education Years	0.034***	0.016***	0.065***	0.023***	0.060***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Minority Status	0.270***	0.024	0.336***	0.301***	0.270***
	(0.031)	(0.032)	(0.033)	(0.031)	(0.033)
Household Income	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes
Country x Wave	Yes	Yes	Yes	Yes	Yes
Constant	4.014***	6.061***	4.581***	4.108***	5.444***
	(0.062)	(0.063)	(0.065)	(0.063)	(0.068)
R^2	0.180	0.123	0.192	0.187	0.197
Observations	135,272	136,048	134,335	134,722	134,729

*Note: Alterations of the dependent variables are indicated in columns. Independent variables and their corresponding coefficients in rows. Discrimination, Female and Minority Status are binary variables. Age is measured in years, Education Years as years of full-time education completed. Household income is measured in deciles and included as a categorical variable. The dependent trust variables are given on a scale from 0 (no trust) to 10 (complete trust). Standard errors are given in parentheses. Significance levels are indicated as follows: * $p<0.1$, ** $p<0.05$ and *** $p<0.01$.*

4.2 Heterogeneity Analysis: Ethnicity

In this section I strive to analyse how the nature of the relationship between racial discrimination and trust in political institutions depends on the ethnicity of the individual. By subdividing the dataset into different ethnic groups a distinction can be administered. Based on the ancestral division outlined in section 3, I performed OLS estimations separately for each group. The corresponding results can be found in Table 4.3. The first column Total is identical to column (5) in Table 4.1 and displayed here again for a more facile comparison. Similar to the interpretation of the preceding main analysis the coefficient of *discrimination* appears significant at the 1 % level for all ethnic groups. Figure 4.1 illustrates the coefficients for the different ethnic groups and the corresponding 95 % confidence intervals. Whilst the negative effect of *discrimination* on the trust average is smaller for ethnic Africans and larger in case of Asian or American ethnicity, the confidence interval becomes greater. This comes as observations for non-European ethnicities are substantially lower, ranging between 1,060 and 573. With a smaller sample size the statistical power of the estimator naturally decreases. The differences in estimators as compared to the first column of table 4.3 appear insignificant as of Appendix Table A.4. The Null hypothesis in that is no difference between coefficients, with the alternative hypothesis of unequal coefficients. The Null hypothesis cannot be rejected for any ethnic group.

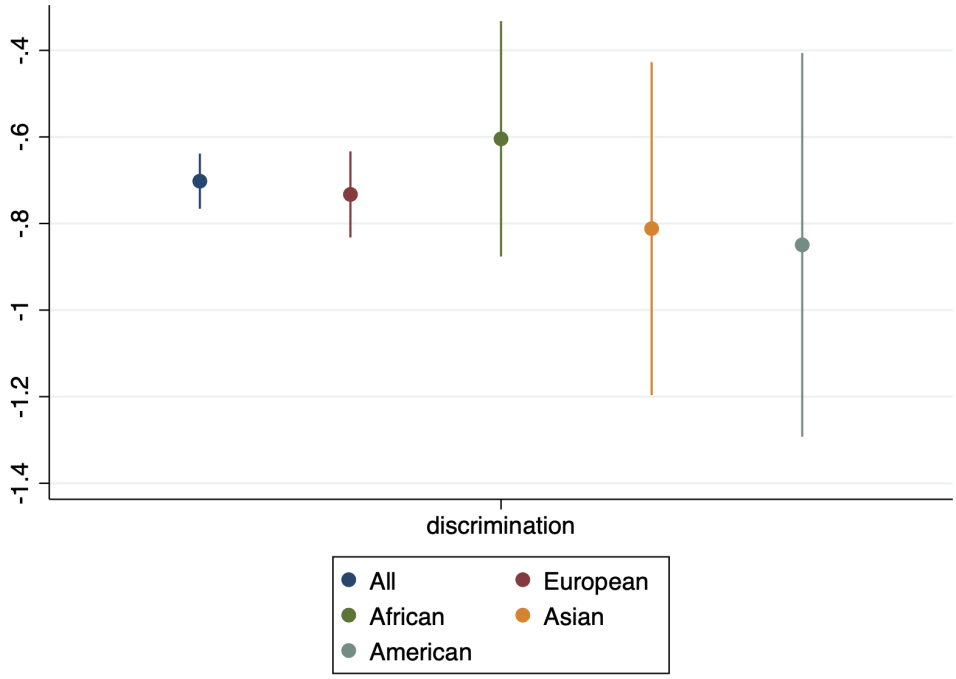

Figure 4.1: Coefficients and 95 % Confidence Intervals by Ethnicity.

Table 4.3: OLS Regression Results with Trust Index as Independent Variable by Ethnicity

	Ethnicity				
	Total	**European**	**African**	**Asian**	**American**
Discrimination	-0.702***	-0.733***	-0.604***	-0.812***	-0.849***
	(0.033)	(0.051)	(0.139)	(0.196)	(0.226)
Female	0.001	-0.011	-0.198*	-0.215	-0.355**
	(0.010)	(0.014)	(0.116)	(0.148)	(0.167)
Age	0.002***	0.001***	0.011***	-0.011**	-0.001
	(0.000)	(0.000)	(0.004)	(0.005)	(0.006)
Education Years	0.040***	0.045***	0.007	0.026	0.008
	(0.001)	(0.002)	(0.014)	(0.024)	(0.021)
Minority Status	0.216***	0.055	-0.041	0.131	-0.000
	(0.026)	(0.046)	(0.127)	(0.153)	(0.183)
Household Income	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes
Country x Wave	Yes	Yes	Yes	Yes	Yes
Constant	4.815***	5.050***	6.346***	6.952***	6.608***
	(0.052)	(0.062)	(0.525)	(0.594)	(0.593)
R^2	0.231	0.224	0.198	0.195	0.265
Observations	132,011	62,956	1,060	573	565

*Note: Different model alterations are shown in columns. Independent variables and their corresponding coefficients in rows. Discrimination, Female and Minority Status are binary variables. Age is measured in years, Education Years as years of full-time education completed. Household income is measured in deciles and included as a categorical variable. The dependent variable index is given on a scale from 0 (no trust) to 10 (complete trust). Standard errors are given in parentheses. Significance levels are indicated as follows: * p<0.1, ** p<0.05 and *** p<0.01.*

4.3 Mechanisms

Going over to Hypothesis 2, I will introduce a potential mechanism in the analysis. I include an interaction effect between the fear of becoming a victim of a violent crime and *discrimination* in the regressions with *index* and the five single trust variables as independent variables. The statistical evaluation can be found in Table 4.4. Even though the coefficient of *fear violence* is significant at 1 % across all six model alterations, the interaction effect with *discrimination* appears insignificant in all model alterations (at all three significance levels). This entails, that the Null hypothesis of those two variables exhibiting conjoint predictive power on trust in political institutions cannot be rejected at a 10 % significance level. These findings clearly oppose Hypothesis 2, which I therefore reject. The individuals fear of becoming a victim of a violent crime and subsequent reduction in quality of life does not constitute a mechanism through which discrimination affects trust in political institutions.

4.4 Immigrant-Specific Analysis

As outlined above, this section is dedicated to analysing the role of time spent in a new country on the effect racial discrimination has on confidence in political institutions. Table 4.5 displays regression results for the main model as well as each of the five trust variables with *time spent* and an interaction effect of this variable with *discrimination*. The number of observations in all regressions is considerably lower as these models by definition only include individuals who have previously transferred to the country of survey. The Null hypothesis with regards to this analysis reads as follows: There is no joint effect between *discrimination* and *time spent* on *index* (or the single political institutions). This Null hypothesis can be rejected at a 1 % significance level in all six models. From the main model presented in the first column it is evident, that both discrimination and the years lived in a given country have a combined effect on confidence in political institutions: A one-year increase in time lived in the host country increases the negative effect of discrimination by 0.015 on average. This effect, accumulated over time, shows a substantial impact. Consequently, individuals who have migrated recently tend to show a smaller relationship between discrimination and confidence in public institutions compared to ones who moved long ago. Table 4.5 furthermore indicates that by inclusion of the time spent in a host country and its interaction effect with racial discrimination the coefficient of *discrimination* itself becomes insignificant in the model with trust in parliament as dependent, and less significant in the regressions regarding political parties and a country's legal system. Throughout the model specifications this estimator decreases compared to Table 4.1. This comes at no threat to our main analysis, as the impact of racial discrimination is now subdivided into its stand-alone and conjoint effect. Furthermore, one has to keep in mind that this heterogeneity analysis uses a small sub-sample of the main analysis, only considering individuals who have moved into the country. Another threat is that this effect might be driven by cohort effects: Different generations perceive group discrimination differently and thus shape our outcome. It is unlikely that this plays a major role in the analysis as most observations are towards

Table 4.4: Mechanization Analysis: The Fear of Becoming a Victim of Violent Crime

	Index	**Politicians**	**Police**	**Parliament**	**Political Parties**	**Legal system**
Discrimination	-0.674***	-0.658***	-0.854***	-0.578***	-0.585***	-0.667***
	(0.102)	(0.113)	(0.138)	(0.123)	(0.110)	(0.136)
Fear violence	-0.243***	-0.179***	-0.298***	-0.214***	-0.148***	-0.371***
	(0.025)	(0.030)	(0.032)	(0.032)	(0.030)	(0.033)
Fear x discrimination	-0.014	-0.013	-0.176	-0.077	0.016	0.034
	(0.133)	(0.150)	(0.178)	(0.162)	(0.147)	(0.175)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave x Country	Yes	Yes	Yes	Yes	Yes	Yes
Constant	5.031***	4.276***	6.010***	4.834***	4.445***	5.556***
	(0.092)	(0.112)	(0.115)	(0.116)	(0.110)	(0.120)
R^2	0.237	0.178	0.164	0.193	0.178	0.193
Observations	22,767	23,343	23,466	23,158	23,255	23,245

*Note: Alterations of the dependent variables are indicated in columns. Independent variables and their corresponding coefficients in rows. Standard errors are given in parentheses. Control variables are included as in previous specifications (age, gender, education, household income and minority belonging) and shown by "Yes". Significance levels are indicated as follows: * p<0.1, ** p<0.05 and *** p<0.01.*

the lower end of years living in the country. To conclude this analysis, given the significant predictive power the introduced interaction term exhibits on all trust variables, I can accept Hypothesis 3: The relationship between discrimination and trust in political institutions is stronger, the longer the migrated individual has resided in their host country.

5 Robustness

In this section I will first propose an alternative variable indicating discrimination in order to gain additional confidence over the estimators found in Table 4.1. Unless specified otherwise, control specifications are consistent with those used in the previous models. Panel (A) of Appendix Table A.3 shows an alternative regression model, where the independent variable of interest *discrimination* is replaced by one indicating the frequency of prejudice experienced based on race or ethnic background in the last year. The coefficient of *prejudice* is significant in most models: The Null hypothesis of the coefficient being equal to 0 can be rejected at a 1 % significance level for the trust index, as well as trust in police and the legal system. Due to its coding from a scale from 0 to 4, it can be interpreted as follows. An individual having experienced prejudice based on ethnic or racial grounds very often in the last year shows a decrease in trust in political institutions of 0.296 (on a 10-point scale) on average. This interpretation is based on column (1) of Panel (A) in Appendix Table A.3, where *index* forms the dependent variable. This comes as the independent variable takes value 4, given prejudice is marked as very often. It is substantially lower than the coefficient found in Table 4.1. This might relate to prejudice being a concept that is perceived as more vague or not as impactful as discrimination. Furthermore, prejudice might have a weaker impact as the question relates to the individual and not as *discrimination* to the individuals group: Socially oriented thinking might cause the individual to perceive group discrimination as more dangerous and influential than personal discrimination. Additionally, the variable *prejudice* only relates to ethnicity, and not as *discrimination* to ethnicity, religion, language, nationality and race. Another reason might be that individuals change over time: The prejudice variable relates to the last year, whereas group discrimination is not timely bound.

Noteworthy is, that the coefficient of *prejudice* is insignificant in the models where trust in politicians and trust in political parties are evaluated. Said coefficient furthermore is weakly significant (at a significance level of 10 %) for *parliament* as dependent variable. Reasons for this are likely to be the same, as for the decreased magnitude in coefficients compared to racial discrimination, as outlined above.

Figure 5.1 depicts the average levels for *discrimination* and *prejudice* for each age group. This serves to disentangle the role of cohort effects in the estimation. Note, that y-axis scales differ, as well as the variables measurement: The comparison is between a binary indicator for discrimination and prejudice, which is measured on a scale from 0 to 4. Outliers for particularly young or old age groups come at no surprise, as observations are much lower thus causing more sensitivity in their respective means. We can see that *prejudice* decreases over age. Furthermore, the average of *discrimination* seem to increase and peak around

Table 4.5: OLS Regression with Interaction Effect: Years Spent in Host Country

	Index	**Politicians**	**Police**	**Parliament**	**Political Parties**	**Legal system**
Discrimination	-0.330***	-0.310**	-0.458***	-0.210	-0.298**	-0.259**
	(0.106)	(0.130)	(0.129)	(0.134)	(0.125)	(0.131)
Time living	-0.022***	-0.021***	-0.020***	0.024***	-0.016***	-0.026***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Discrimination x time living	-0.015***	-0.013***	-0.016***	-0.016***	-0.012***	-0.017***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.004)	(0.004)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave x Country	Yes	Yes	Yes	Yes	Yes	Yes
Constant	5.779***	5.117***	6.968***	5.609***	5.145***	6.401***
	(0.151)	(0.186)	(0.186)	(0.189)	(0.181)	(0.195)
R^2	0.220	0.173	0.096	0.191	0.168	0.162
Observations	10,407	11,107	11,425	10,912	10,945	11,116

*Note: Alterations of the dependent variables are indicated in columns. Independent variables and their corresponding coefficients in rows: Discrimination is a binary variable referring to racial discrimination and time spent is measured in years the migrant individual has resided in their respective host country. Standard errors are given in parentheses. Control variables (age, gender, education, household income and minority belonging) are included and shown by "Yes". Significance levels are indicated as follows: * p<0.1, ** p<0.05 and *** p<0.01.*

the age of 30 before decreasing steadily. The trend for discrimination is considerably more extreme than the subtle decrease one observes for the alternative measure displayed on the left. These graphs suggest that different generations view and experience discrimination (and prejudice) differently. Altogether, these findings neither strengthen nor support Hypothesis 1.

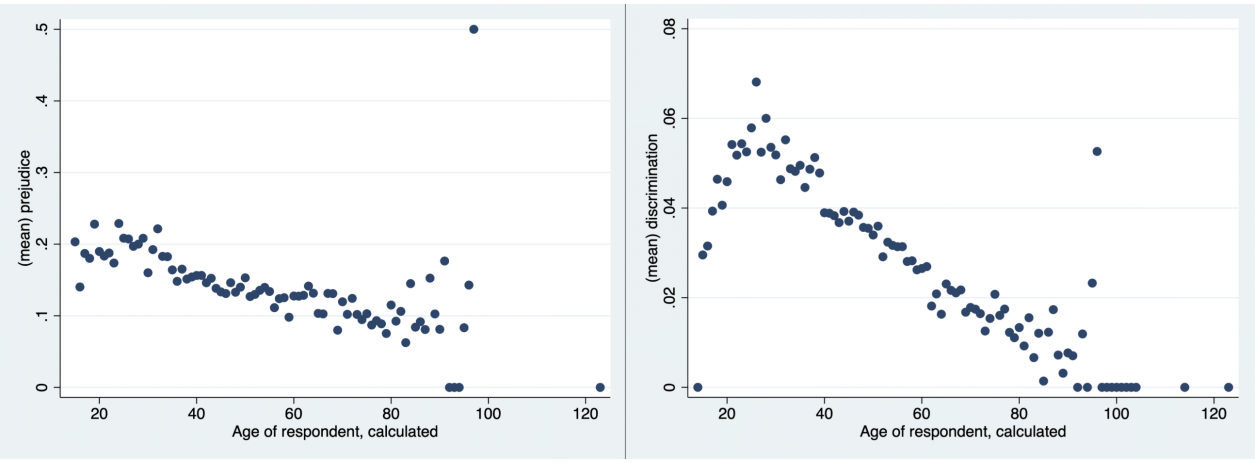

Figure 5.1: Average Discrimination and Prejudice Levels over Age.

Secondly, I have included the variable *free media*: It displays to which extent the individual recognizes media in their country to provide citizens with reliable information to judge the government. Results can be seen in Panel (B) of Appendix table A.3. By inclusion of this potential confounder the coefficient of *discrimination* increases marginally, as compared to the main model specified in table 4.1 whilst R^2 increases. Here, this indicates a negative OVB: The coefficient found in the previous model might be understated. In other model specifications, such as trust in politicians or the parliament it decreases compared to Table 4.2. Given the ambiguous change in coefficients following the introduction of a control variable one can expect the true (or causal) coefficient to be around my previous estimations. Nevertheless, a causal relationship cannot be proven with this analysis. To further examine the threat of OVB I implemented the Oster method on the main model (with *index* as dependent variable) and likewise base my interpretation on Oster (2019). For one, I find that, for the treatment effect to become 0, it would require unobservables to be 6.957 times as important as observables. This measure refers to the degree of selection between the two. An equal degree of selection (taking value 1) is common practice and for most cases reasonable (Oster, 2019). Secondly, given equal importance of observables and unobservables, the coefficient of discrimination would become -1.266. This gives further confidence that discrimination does indeed affect trust in political institutions in support of Hypothesis 1. Noteworthy appears that the control analysis provides a different bias direction than the Oster method. As the omission of further confounders cannot be excluded, the findings presented in this work can not be interpreted causally, but only as a correlation. Though, concluding, evidence in favour of the first hypothesis is overwhelming.

6 Discussion

By means of an OLS regression model I found strong support within Europe for the first and most fundamental hypothesis to this paper: Perceived discrimination on racial motives of an individual's group has a negative correlation with trust in political institutions. Nevertheless, these results have to be interpreted with caution: Potential OVB might bias the estimator, by leading to a correlation between the treatment variable and the error term. This leads to a violation of the conditional mean independence assumption. If this assumption is not fulfilled, the estimator might not be unbiased and consistent. Thus, the analysis has to be seen non-causal: All other things unchanged (ceteris paribus), discrimination exhibits significant negative predictive power over trust in political institutions. The inclusion of a potential confounding variable, regarding the reliability of media, shows that the previously computed coefficient might be overstated with regards to magnitude. Notably, due to the individual level regression framework implemented in this thesis I did not account for quality of governance in my models, an important factor to consider as of Röder and Mühlau (2011). This constitutes a major drawback in my analysis. The inclusion of a potential confounder is understood to be a demonstration of OVB, as there are likely other unobservables that influence outcome and treatment. One of those could be how the individual consumes media: Over the last decade the rise of social media has fundamentally changed the way society accesses news. This can lead to a bias by confirming the individuals pre-existing opinions (Levy, 2021), such as views about their groups discrimination, or influence political views. This demonstrates that there are likely more omitted variables that remain, for now, unobserved and thus unaccounted for. Further OLS assumptions are likely to be satisfied: random sampling appears feasible, given the quality of the ESS. Moreover, large outliers are by definition of the dependent variables and the independent binary indicator excluded; observations were additionally filtered, such as for age. Lastly, perfect multicollinearity is not a threat to the analysis. My findings go hand in hand with previous literature on the topic (Levitt, 2015; Röder & Mühlau, 2011). The information provision experiment implemented by Tyrberg (2023) finds contradicting results: on the one hand on cross-sectional data in line with my results, on the other by means of an experiment a positive effect of discrimination. Given empirics and theory contradicting the latter results, they acknowledge potential threats to the validity of their identification strategy. Furthermore, by differentiating between ethnic groups I found that this negative relationship holds regardless of the background of an individual. This distinction allows for a more detailled understanding of different ancestries and their role in the formation of the main effect examined. All in all, support for my first hypothesis appears to be consistent with literature.

Going beyond research in this field so far, I have examined one potential mechanism in this effect: The worry of the individual's quality of life suffering by becoming a victim of a violent crime. By implementation of an interaction term I could find no evidence for the moderator. Given the lack of empirical support, I

reject Hypotheses 2. Lastly, I continued previous work by Röder and Mühlau (2011) further disentangling the time-wise effect of optimistic evaluations (Maxwell, 2010). In the heterogeneity analysis of section 4.4 an interaction term between the time an individual has lived in their host country (since moving there) and racial discrimination has been introduced. I found, that the effect of discrimination on trust in political institutions is significantly enhanced the longer an individual has lived in a country. Hypothesis 3 is therefore accepted. This examination goes beyond the distinction between first- and second-generation migrants that literature has so far examined. This new form of heterogeneity analysis therefore not only deepens our understanding of the formation of trust in political institutions, but also gives more insight on the role of optimistic evaluations: These seem to fade out over time for first-generation migrants.

7 Conclusion

This paper strove to investigate how racially motivated group discrimination shapes the trust an individual has in political institutions in European countries. Evaluating data from the ESS between 2008 and 2018 I found strong evidence of a negative effect of said discrimination on trust in five different key actors of our political landscape: politicians, police, a country's parliament, political parties and legal system. This effect holds both solitarily, as well as in a composite analysis. By testing, if this effect also holds for ethnic prejudice as a substitute for discrimination, these findings could be recreated, though with decreased gravity. Said negative correlation holds regardless of the ethnic background of an individual and does not differ significantly between ethnic groups. Furthermore, examining a mechanism, I failed to prove a moderating role of the fear of becoming a victim of violent crime and subsequent detrimental impact on the quality of life. Lastly, I elaborated upon previous research distinguishing the effect of discrimination between generations of migrants. In line with theory, I found evidence, that even within the first generation, the time lived in a given host country has a conjoint effect with discrimination in trust: The longer an individual lives in the host country, the more detrimental the effect of discrimination. All in all, this set of hypothesis sheds light onto the research question underlying my thesis. Group discrimination has a significant negative correlation with trust in the government organs within Europe. Individuals who have experienced group discrimination display lower trust levels than those who have not on average, all other things unchanged. In analysing this relationship for a sub-sample of migrants, the time they spent in their country of residence moderates the effect of discrimination. The longer a migrant has resided in a given country, the stronger is the impact discrimination has on trust on average.

There are plenty of opportunities for future researchers to consider. For one, the formation of trust in police offers potential for a more nuanced analysis. Whilst appearing as the most trusted of the government organs examined in this paper, the effect of discrimination is the most detrimental compared to all other institutions. My models could continuously only grasp little of the variability in that variable, despite different specifications. It is particularly interesting in light of recent evolvements, such as the Black Lives Matter

movement. Its role in political trust seems fundamental and deserves more attention. Furthermore, the implementation of a longitudinal study allowing for the estimation of individual fixed-effects could provide an opportunity for more certainty in my - and previous - estimations. Moreover, such a complex dynamic that this topic involves presents myriads of heterogeneity analyses that could be exploited: One particularly interesting approach is the estimation of such an effect of discrimination on confidence in public institutions by race or ethnicity with larger sample sizes. My analysis was restricted by small samples for ethnic subgroups and thus coefficient estimations displayed large confidence intervals. Finding significant differences between such groups appears likely, if one can make use of larger sample sizes than the ESS provided. This could potentially help policymakers to better focus efforts to particularly affected groups. Another angle to consider that was not within the scope of this thesis is considering discriminating individuals. To better understand the complex dynamic I also recommend to investigate how trust levels might differ for those discriminating.

This thesis, combined with the small pool of literature related to the topic, provides several angles for policy makers, especially in Europe. All potential policy implications concern the fundamental notion that outlined trust is beneficial towards the functioning of our democratic societies. Most apparent the importance to fight discrimination, both in private settings as well as in bureaucratic processes. Within Latin-America it could be shown that discrimination in government contacts plays a determining role in the effect of trust, whilst private-setting discrimination does not weigh in strongly. I therefore also recommend future research if this difference in discrimination types prevails in Europe. Given this, governments should likely draw attention towards combatting unfair treatment due to racial indicators within their own institutions. Particular policies could include the promotion of political responsiveness: Fostering a transparent environment in which citizens and especially minorities can approach governments might help in nurturing trust. From another angle, governments can enhance focus on education of the diverse nature discrimination exhibits detrimental effects: Not only from an economic point of view discrimination is inefficient, but also from a manifold of social perspectives. Next to the impact it has on the individuals' and groups' psychological status, discrimination appears to erode trust in political institutions - vital for our democratic stability.

References

Algan, Y., Guriev, S., Papaioannou, E., & Passari, E. (2017). The european trust crisis and the rise of populism. *Brookings papers on economic activity*, *2017*(2), 309–400.

Bélanger, É. (2017). Political trust and voting behaviour. In *Handbook on political trust* (pp. 242–255). Edward Elgar Publishing.

Bélanger, É., & Nadeau, R. (2005). Political trust and the vote in multiparty elections: The canadian case. *European journal of political research*, *44*(1), 121–146.

Bertrand, M., & Duflo, E. (2017). Field experiments on discrimination. *Handbook of economic field experiments*, *1*, 309–393.

Borjas, G. J. (1982). The politics of employment discrimination in the federal bureaucracy. *The Journal of Law and Economics*, *25*(2), 271–299.

Byron, R. A., & Roscigno, V. J. (2019). Bureaucracy, discrimination, and the racialized character of organizational life. In *Race, organizations, and the organizing process* (pp. 151–169). Emerald Publishing Limited.

Dancygier, R. M., & Laitin, D. D. (2014). Immigration into europe: Economic discrimination, violence, and public policy. *Annual Review of Political Science*, *17*, 43–64.

Fouka, V. (2019). How do immigrants respond to discrimination? the case of germans in the us during world war i. *American Political Science Review*, *113*(2), 405–422.

Frieden, T. R. (2013). Government's role in protecting health and safety. *N Engl J Med*, *368*(20), 1857–1859.

Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting cronbach's alpha reliability coefficient for likert-type scales.

Grönlund, K., & Setälä, M. (2007). Political trust, satisfaction and voter turnout. *Comparative European Politics*, *5*, 400–422.

Haagsma, R. (1993). Is statistical discrimination socially efficient? *Information Economics and Policy*, *5*(1), 31–50.

Hooghe, M., & Dassonneville, R. (2018). A spiral of distrust: A panel study on the relation between political distrust and protest voting in belgium. *Government and Opposition*, *53*(1), 104–130.

Jasinskaja-Lahti, I., Liebkind, K., & Solheim, E. (2009). To identify or not to identify? national disidentification as an alternative reaction to perceived ethnic discrimination. *Applied Psychology: An International Review*.

Johnstone, M.-J., & Kanitsaki, O. (2008). Ethnic aged discrimination and disparities in health and social care: A question of social justice. *Australasian Journal on Ageing*, *27*(3), 110–115.

Léonard, S., & Kaunert, C. (2019). *Refugees, security and the european union*. Routledge.

Levitt, B. S. (2015). Discrimination and the distrust of democratic institutions in latin america. *Politics, Groups, and Identities*, *3*(3), 417–437.

Levy, R. (2021). Social media, news consumption, and polarization: Evidence from a field experiment. *American economic review*, *111*(3), 831–870.

Liebkind, K., & Jasinskaja-Lahti, I. (2000). The influence of experiences of discrimination on psychological stress: A comparison of seven immigrant groups. *Journal of Community & Applied Social Psychology*, *10*(1), 1–16.

Lippert-Rasmussen, K. (2006). The badness of discrimination. *Ethical Theory and Moral Practice*, *9*, 167–185.

Maxwell, R. (2010). Evaluating migrant integration: Political attitudes across generations in europe. *International migration review*, *44*(1), 25–52.

Mishler, W., & Rose, R. (2001). What are the origins of political trust? testing institutional and cultural theories in post-communist societies. *Comparative political studies*, *34*(1), 30–62.

Newton, K., & Norris, P. (2000). Confidence in public institutions. *Disaffected democracies. What's troubling the trilateral countries*, 52–73.

Oster, E. (2019). Unobservable selection and coefficient stability: Theory and evidence. *Journal of Business & Economic Statistics*, *37*(2), 187–204.

Röder, A., & Mühlau, P. (2011). Discrimination, exclusion and immigrants'confidence in public institutions in europe. *European Societies*, *13*(4), 535–557.

Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological bulletin*, *140*(4), 921.

Stiglitz, J. E. (1973). Approaches to the economics of discrimination. *The American Economic Review*, *63*(2), 287–295.

Tang, N., Eisenberg, J. M., & Meyer, G. S. (2004). The roles of government in improving health care quality and safety. *The Joint Commission Journal on Quality and Safety*, *30*(1), 47–55.

Tyrberg, M. (2023). The impact of discrimination and support on immigrant trust and belonging. *European Political Science Review*, 1–17.

White, A. R., Nathan, N. L., & Faller, J. K. (2015). What do i need to vote? bureaucratic discretion and discrimination by local election officials. *American Political Science Review*, *109*(1), 129–142.

A Appendix

Table A.1: Detailled Descriptive Statistics

	ESS rounds	Mean	SD	Min	Median	Max	Observations
Panel (A): Binary Variables							
Discrimination	4-9	0.034	0.182	0	0	1	170,003
Minority	4-9	0.053	0.225	0	0	1	171,378
Female	4-9	0.528	0.499	0	1	1	172,968
Panel (B): Other variables							
Politicians	4-9	3.691	2.388	0	4	10	170,475
Police	4-9	6.422	2.357	0	7	10	171,835
Political Parties	4-9	3.683	2.341	0	4	10	169,613
Parliament	4-9	4.610	2.545	0	5	10	168,799
Legal system	4-9	5.402	2.581	0	6	10	169,562
Index	4-9	4.765	2.034	0	5	10	165,116
Prejudice	4	0.244	0.687	0	0	4	29,383
Age	4-9	42.234	18.671	14	49	123	172,549
Household income	4-9	5.305	2.789	1	5	10	138,639
Education Years	4-9	12.782	4.166	0	12	60	171,386
Free media	6	6.213	2.451	0	6	10	29,339
Fear violence	4-5	2.561	0.588	1	3	3	30,676
Time spent	5-9	27.408	19.017	1	23	104	14,826
Household Income 1^{st} (%)	4-9	9.565	0.294	0	0	1	138,639
Household Income 2^{nd} (%)	4-9	10.957	0.312	0	0	1	138,639
Household Income 3^{rd} (%)	4-9	10.974	0.313	0	0	1	138,639
Household Income 4^{th} (%)	4-9	11.009	0.313	0	0	1	138,639
Household Income 5^{th} (%)	4-9	10.785	0.310	0	0	1	138,639
Household Income 6^{th} (%)	4-9	10.165	0.302	0	0	1	138,639
Household Income 7^{th} (%)	4-9	10.043	0.301	0	0	1	138,639
Household Income 8^{th} (%)	4-9	9.766	0.297	0	0	1	138,639
Household Income 9^{th} (%)	4-9	8.459	0.278	0	0	1	138,639
Household Income 10^{th} (%)	4-9	8.276	0.275	0	0	1	138,639

Note: All age observations are included. SD stands for standard deviation, Min for minimum and Max for maximum. Age and time spent are given in years, Household income as deciles and Education Years are measured as years of full-time education completed. Politicians care and free media are measured on a scale from 0 to 10 and fear violence from 1 to 3, prejudice from 0 to 4. Trust variables and free media are coded on a scale from 0 to 10.

Table A.2: OLS Regression Results for All Ages

	Index	**Politicians**	**Police**	**Parliament**	**Political Parties**	**Legal system**
Discrimination	-0.708***	-0.651***	-0.817***	-0.679***	-0.586***	-0.752***
	(0.033)	(0.037)	(0.042)	(0.041)	(0.037)	(0.042)
Female	0.001	0.062***	0.120***	-0.121***	0.037***	-0.091***
	(0.010)	(0.012)	(0.012)	(0.013)	(0.011)	(0.013)
Age	0.002***	0.003***	0.005***	0.002***	-0.000	-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education Years	0.040***	0.034***	0.016***	0.065***	0.023***	0.060***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Minority Status	0.216***	0.270***	0.023	0.336***	0.301***	0.270***
	(0.026)	(0.031)	(0.032)	(0.033)	(0.031)	(0.033)
Household Income	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Country x Wave	Yes	Yes	Yes	Yes	Yes	Yes
Constant	4.815***	4.014***	6.061***	4.581***	4.108***	5.444***
	(0.052)	(0.062)	(0.063)	(0.065)	(0.063)	(0.068)
R^2	0.231	0.180	0.123	0.192	0.186	0.197
Observations	132,017	135,279	136,055	134,341	134,729	134,736

*Note: Standard errors are given in parentheses. Control variables are included and shown by "Yes". Discrimination, Minority and Female are binary variables. Age and time spent are given in years, Household income as deciles and Education Years are measured as years of full-time education completed. The outcome variable (trus in... or index) is coded on a scale from 0 (no trust) to 10 (complete trust). Significance levels are indicated as follows: * p<0.1, ** p<0.05 and *** p<0.01.*

Table A.3: Main Analysis - Robustness Checks

	Panel (A): Prejudice as Independent					
	Index	**Politicians**	**Police**	**Parliament**	**Political Parties**	**Legal system**
Prejudice	-0.074***	-0.013	-0.208***	-0.042*	0.004	-0.098***
	(0.020)	(0.024)	(0.026)	(0.025)	(0.024)	(0.026)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave x Country	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.219	0.160	0.156	0.185	0.164	0.185
Observations	23,031	22,823	22,963	22,625	22,714	22,732
	Panel (B): Control Variable Free Media					
	Index	**Politicians**	**Police**	**Parliament**	**Political Parties**	**Legal system**
Discrimination	-0.680***	-0.593***	-0.854***	-0.663***	-0.549***	-0.748***
	(0.078)	(0.090)	(0.102)	(0.097)	(0.088)	(0.102)
Free media	Yes	Yes	Yes	Yes	Yes	Yes
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Wave x Country	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.298	0.242	0.158	0.253	0.247	0.255
Observations	24,483	23,348	23,413	23,205	23,291	23,225

*Note: Alterations of the dependent variables are indicated in columns. Independent variables and their corresponding coefficients in rows. Standard errors are given in parentheses. Control variables are included as in previous specifications (age, gender, education, household income and minority belonging) and shown by "Yes". Significance levels are indicated as follows: * p<0.1, ** p<0.05 and *** p<0.01.*

Table A.4: Z-Statistics of Coefficient Comparison to the Comprehensive Index-Model

	All groups with Index
European	0.508
African	-0.262
Asian	0.247
American	0.309
Trust in Politicians	-0.242
Trust in Police	0.603
Trust in Parliament	-0.117
Political Parties	-0.553
Legal system	0.252

*Note: The rows indicate which model specification with regards to the dependent variable is used. Significance levels are indicated as follows: * p<0.1, ** p<0.05 and *** p<0.01.*