



**Utrecht University**

## **Trust in the police**

### **Looking at social capital and procedural justice in 27 European countries**

#### **Abstract**

This study aims to find out what the contribution of the social capital theory and the procedural justice theory is on trust in the police, whilst considering contrasting crime rates in 27 different European countries. Using data from the fifth round of the European Social Survey, multiple hypotheses were tested through numerous regression analyses. Control variables focused on socio-demographics including age, gender, and education were added to examine whether any effects could have been influenced by these characteristics. The results of the regression analyses show no significant effect of social capital on the level of trust in the police. However, procedural justice did have a large significant effect on the level of trust in the police. Furthermore, it was found that procedural justice is, to a limited extent, extra important in countries with a high crime rate. Based on this, future research should focus on expanding the examination of the effects of procedural justice on trust in the police, especially in countries with a higher crime rate. The policy advice includes advice on how to incorporate procedural justice in the way the police execute their job, aiming to improve the trust citizens have in the police.

***Keywords:*** *trust; police; crime; social capital; procedural justice.*

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## **Introduction**

The public often assumes that the police and police actions are intrinsically good and appropriate by default. The romantic and nostalgic view the public generally has that characterises the police shows the importance of ideological beliefs and psychological orientations (Kyprianides, Yesberg, Milani, Bradford, Quinton, & Clark–Darby, 2020). However, not everyone has this romantic view of the police, as the confidence and trust people have in the police has fallen to a new low in a country like the U.S. (Andrew, 2020).

A central aspect that defines the success rate of the (productivity of the) police is the role that the community plays. The view that members of the public have regarding the police creates a morally aligned perspective between the public and the police members of how the police should operate, which in turn can lead to the proper execution of power from the police (Jackson, Bradford, Stanko, & Hohl, 2012). One of the most crucial elements that creates the best possible connection between the community and the police is trust (Kyprianides, Yesberg, Milani, Bradford, Quinton, & Clark–Darby, 2020). The trust and confidence the public have in the police are considered the cornerstone of society (Miles-Johnson, 2013), which have many favourable effects on among other things well-being, health, and safety (Kääriäinen, 2007). Furthermore, trust implies an inherent and unconditional belief in and reliance upon a public institution established to protect citizens, such as the police (Cao, 2015). Fair decisions and being treated respectfully strengthen trustworthiness broadly (Staubli, 2017). A higher level of trust in institutions increases institutional quality which is linked to greater economic growth (Blanco, 2013). By trusting someone, it is shown that someone is willing to take risks regarding their own well-being to be able to protect the interest of others (Cao, 2015). The police showing that they are willing to risk their own well-being for the safety of citizens, in combination with whether the police are executing their job properly (fighting crime effectively), are key factors for strengthening trustworthiness (Staubli, 2017).

Trust is both an origin and an outcome forming the basis of relationships, which in turn generates social capital (Nooteboom, 2007). A significant idea of social capital is that well-functioning communities lay the foundation for the development of norms and trust (Kääriäinen, 2007). Not only do communities increase trust between citizens, they also increase the effectiveness of trust in authorities (Van Craen, 2013). When it comes to putting your trust on someone or something such as an institution, the degree of how much you trust them goes hand in hand with the degree of how much you must rely on them (Hieronymi, 2008). When it comes to crime, the public must be able to put their full trust in the hands of the police.

Once trust in the authorities has been increased, it familiarises citizens with the way that institutions work and it gives them opportunities to influence policies, as well as the increase of involvement and co-operation (Van Craen, 2013).

In turn of this all, a lack of trust in public institutions and the police creates less general well-being, health, and safety. If the police lack trust and legitimacy in the eyes of the public, the overall voluntary cooperation and public confidence will be difficult to obtain, and it will obstruct the effectiveness of the police (Miles-Johnson, 2013). A lack of public trust and as a result a lack of compliance leads to profound consequences such as less willingness to engage, cooperate and participate (Skarlatidou, Ludwig, Solymosi, & Bradford, 2021). It has been reported that a higher level of insecurity leads to a decrease in trust, support, and satisfaction for social institutions that directly deal with crime. This in turn has consequences for a nation's economic growth, its institutional stability, and the development of the country (Blanco, 2013).

Research regarding the overall topic of trust in the police and more specifically what factors contribute to either trust or a lack of trust in the police has been done in many countries across the world (Van Craen, 2013). While much research has been conducted regarding trust in the police, there is a facet that has not been included in the equation as much: how trust in the police is different for countries with different crime rates. Most of the existing research that examines differences in crime rates has been done with a micro-level approach, which primarily focuses on individual characteristics, neighbourhoods, and communities. Furthermore, the level of crime matters, as it is expected that people have more confidence in the police when crime is low and vice versa. It may take a lot of effort to increase trust in the police in countries with a relatively high crime rate. Therefore, it would be interesting to investigate to what extent predictors of trust in the police differ between countries with high and low crime rates.

To be able to gather a better understanding of the current observations on crime rates, it is important to look at these characteristics in a larger context. Countries have considerable differences in for example social, economic, political, and demographic contexts. The contexts that differ per country are to a great extent responsible for establishing, maintaining, and reinforcing social norms (Reese, 2009). Leaving out the effects of for instance social, political, and demographic contexts can critically limit the understanding of differences in crime rates and different levels of trust in the police. The results of this study will illustrate the differences between opposed levels of crime in 27 European countries, while also considering diverse levels of trust in the police. This information can further support and contribute to the already existing knowledge regarding the topic of trust in the police and can further be used for policymaking in relation to crime prevention.

Trust in authorities and social institutions have a critical psychological effect on collective behaviour. Citizens trust in the government, authorities, and social institutions benefits the government itself simultaneously, as trust helps with for example policies and directives since the public will be more likely to cooperate, as long as citizens trust that the government works in their interest (Hogg, Antonini, Mannetti, Barbieri, & Wagoner, 2015). As trust additionally has a favourable effect on well-being, health, and safety, more trust in each other creates a better living environment for all. This research will give more insight and create a better understanding of the influential factors that create trust in the police. Once these insights are clear, it will be possible to see if trust in the police can be increased.

Based on the problem description the descriptive, the explanatory, and the policy research questions (RQ) that will be used for this paper are as followed:

**RQ 1:** To what extent do people have trust in the police?

**RQ 2:** What factors explain trust in the police and to what extent does this differ for countries with a high or low crime rate?

**RQ 3:** What policy suggestions can be derived from explanations for the level of trust in the police?

To obtain the answers to the research questions, this study will focus on the differences between 27 European countries, with data collected from the European Social Survey. First, the theoretical framework including theories and terms will be discussed. The following chapter will provide information on the method of this study, explaining the data and the statistical analysis. Finally, the results of the statistical analysis will be shown and discussed, and the research will be concluded.

## **Theory**

The following section provides an in-depth theoretical framework discussing trust in the police and differences in crime rates. The two most common theories explaining this are the social capital theory and the procedural justice theory. Both these theories and the most important terms will be explained.

### *Trust in the police*

There are several factors seen from public attitudes that create trust in the police. The extent to which people trust the police is based on beliefs of efficacy and technical competence (Yesberg

& Bradford, 2018). Not only does the public want a police unit that is effective and efficient, they also want a police force that is fair and in alignment with the individuals' own values and morals. Due to this, trust is formed based on individuals' expectations and continuous evaluations to what extent the police live up to the expectations of treating people fairly, having aligned values and morals, act in the best interest of the public (Yesberg & Bradford, 2018), have a strong commitment to the citizens in their region, and understand the need of the citizens (Jackson & Bradford, 2010). The determinant that is based on trust is associated with the assumption that the police and the public share social bonds. There is a valuable need for the police to work on behalf of the public, with the most important factor being commitment to shared interests and priorities, complying to the norms and values of the community (Yesberg & Bradford, 2018).

Trust in institutions and legal authorities helps sustain and justify social and political institutions and positioning. Trust mainly enhances police effectiveness and the legitimacy of police actions, which in turn leads to public co-operation (Goldsmith, 2005). Thus, when citizens are aligned with their country's legal system, they will less likely break the rules and are more likely to help the police, which can be a determine for low crime rates in that country. Trust refers to a set of beliefs or expectations. Creating a positive attitude towards the police consists of multiple factors, one of them being effective police work that serves citizens well. Furthermore, public trust in the police is not only built on personal experiences or police work, but also on images, stories, and the role that the media plays in regard to the image of the police (Kääriäinen, 2008).

### *Social Capital Theory*

When looking at what explains trust in the police, an often-recurring theory that is used in literature is the social capital theory. The social capital theory, first defined by Bourdieu in 1985, is a theory that explains the value networks have to its members by generating access to social resources that are coming from said network (de Camargo Fiorini, Seles, Jabbour, Mariano, & de Sousa Jabbour, 2018). Social capital takes on both dense and loose networks and has relational, material, and political aspects (Kreuter & Lezin, 2002). Even though there are many ways that social capital is defined, one component that emerges from nearly all conceptualizations is trust (Newton, 2001). Social capital is defined as “the features of social life – networks, norms, and trust – that enable participants to act together more effectively to pursue shared objectives” (Putnam, 1995). An addition to this definition made by Fukuyama (2001) is that the set of informal values and norms shared among members of a group make

cooperation among them possible. If the members of the group count on honest and reliable behaviour from others, the result in the end will be trust, as social capital creates a stronger collective, building bonds based on trust. The emphasis that lies on the legitimate construct of modern societies is founded on linked networks of trust, as well as the trust of authorities and governments as being fundamental (Siisiainen, 2003). Social relations are seen as the resources that can develop and accumulate human capital, generating reproductive benefits (Machalek & Martin, 2015). Social capital is seen as a predictor of social control and social cohesion, where it is established that both high levels of social control and social cohesion contribute to less criminality (Hirschfield & Bowers, 1997). Thus, the mechanism of the social capital theory suggests that a stronger connection and favourable relationships with others, such as friends, neighbours, family, and acquaintances, leads to more trust in institutions in general, including the police (Van Craen, 2013).

Prior studies have explored the social capital theory in combination with trust in the police. An example of this is a study done by Sun, Hu, and Wu (2012). Their study, carried out in China with data collected from over 3500 Chinese citizens in eight different cities, focused on the legitimacy problem of the police. Results of this study found that social capital was a key variable for trust in the police. Factors such as trust in the neighbourhood committees' leaders, sense of safety, trust in neighbours, and participation in political activity all increased the likelihood of trust in the police. However, the results of this study show that frequency of social activity did not matter as much when it comes to trust. Another major result from this study shows that the size of the city matters, as urban dwellers tend to have highly favourable opinions towards the police.

MacDonald and Stokes (2006) performed their study using a national survey of U.S. citizens, to examine the relation between race, social capital, and trust in the police. The research theorises that social capital offers an explanation for racial differences in attitudes towards the police. The results show that not only do race and class create attitudes towards the police, but these attitudes are also embedded in the differences of citizens' perceived levels of community social capital, according to MacDonald and Stokes, where decreased levels of social capital contribute to higher levels of distrust in the police. Furthermore, the results show that social capital is a strong predictor and key ingredient for trust in the police. The attitudes created by race and class are mainly presented by older, white, and high-educated people, who tend to trust the police more.

Van Craen (2013) studied the relevance of the social capital theory regarding trust in the Belgian police of Turkish and Moroccan minority groups. The research was conducted

through 960 face-to-face interviews with both majority and minority groups living in Belgium. In his research Van Craen found that social capital has a significant impact on how much individuals trust the police, however the impact is dependent on whether the individual is a member of the majority or minority group. Furthermore, both the majority and minority group members have more trust in the police when they experience more social capital, showing that social capital has a positive impact on the view group members have on the police. However, when it comes to the minority group, the more social capital they experience with their own minority group, the less trust they have in the police. There is a negative bonding social capital effect within minority group members.

Van Craen and Skogan (2015) follow up on this prior research by replicating the study with a different minority group, namely Polish immigrants. They anticipated that social capital would not play an important role in the explanation of trust in the Belgian police from the Polish immigrants' perspective. Their study confirmed their assumptions, with the explanation that their country of origin had a poor quality of social capital, in combination with recently moving to another country. This results in no correlation between social capital and trust in the police for Polish immigrants. The most important reason for the lack of correlation is the fact that this study does concern an exceptional group, as the respondents just moved to a new country. Based on how the social capital theory influences trust in the police, the following hypothesis is derived:

*H1: More social capital leads to more trust in the police.*

The results of this hypothesis may not apply to all minority groups, as research from Van Craen has shown, however, generally a positive correlation is expected.

### *Procedural Justice Theory*

The second theory that is most dominant in research regarding trust in the police is the procedural justice theory. Tyler's theory of procedural justice proposes that the police can increase their perceived legitimacy and trustworthiness by executing their authority in a procedurally fair manner. When individuals believe the police are procedurally fair, they are more likely to comply with the police by reporting crimes and implementing and executing societal norms, as the public then sees them as more legitimate and trustworthy. Additionally, the established legitimacy and trustworthiness serve as preferable alternatives rather than the use of coercive force to obtain compliance from the public (Nix, Wolfe, Rojek & Kaminski, 2015).

As explained by Gangl (2003), the procedural justice theory operates with four procedural characteristics that are set to have the biggest impact on the assessment of legitimacy, trust, and compliance. To begin with representation, people must believe that their views are being represented and taken up for consideration when it comes to the decision-making processes. An individual's views being represented means that either there needs to be an opportunity for someone to speak on behalf of their own side of the story and their personal interests, or they need to be able to identify representatives that defend similar interests. The second procedural characteristic is neutrality. Neutrality stands for decisions made by the police or governmental organisations that are unbiased and guided by transparent reasoning. It needs to be clear that the decisions were made as a neutral fact, where all views need to be considered and no view has a dominant advantage over other views. The third procedural characteristic is respect, where it is important that all are treated with respect and dignity. The last procedural characteristic is trustworthiness. There must be trust in the representatives and authorities that are responsible for the decision-making. The motives about the decisions must be open and trustworthy for those affected by the decision. As many citizens lack time, knowledge, and motivation to personally voice their opinions and interests, or to challenge the interests of others with whom they disagree, they need to be able to fully trust the representatives on expressing shared interests.

Once the characteristics of procedural justice are set and citizens can recognize these with pride and respect, identification with groups will take place. This in turn will lead to psychological engagement and mandatory and discretionary behaviour. Consequently, the mandatory and discretionary behaviour of citizens will lead to more motivated and engaged citizens which in turn will result in increased performance and an overall better shared feeling among citizens. The procedures are important for shaping social identities within the groups or societies, which in turn influences attitudes, values, and behaviours (Tyler & Blader, 2003). Winning 'hearts and minds' is essential to be able to use authority effectively, and social justice and fairness in the system are fundamental for a well-regulated society according to Hough, Jackson, and Bradford (2013).

Procedural justice pertains to the processes and the real or alleged actions that the police execute. If people experience e.g., discrimination, corruption, intimidation, excessive force or brutality in their actions or during the investigation, people will perceive a lack of procedural justice, which damages the trust in the police. The two most vitally important aspects to establish trust in the police are the procedural justice evaluations and the procedural fairness from the public's eyes.

Several studies have explored the procedural justice theory in relation to trust in the police. An example of this is a study done by Hinds and Murphy (2007), who were the first to examine the effects of procedural justice and police legitimacy in Australia. Using a sample of 2611 respondents, their study found that individuals that believe the police use procedural justice when performing their job are more likely to view the police as legitimate and are more satisfied with the services that the police execute. In line with previous procedural justice literature from the United States, the public consent with police actions encourages the public to trust the police.

Murphy, Mazerolle, and Bennett (2014) tested whether procedural justice could be used to increase public trust and confidence in the police among 2762 Australians. In their research a 'procedural justice script' was created, introducing elements of procedural justice into the practices of the police. The findings show that the created procedural justice script caused for higher trust and confidence in the police than the standard police procedure. Individuals that felt the police were effective in dealing with crime and used procedural justice when executing their job were more likely to trust the police. Furthermore, a higher level of trust caused for willingness to cooperate with, and to obey, the police.

Jackson et al (2011) studied the concept of procedural justice whilst comparing the United Kingdom and Bulgaria. The latter was selected to contribute a proper contrast, as it used to be a communist country and it is economically different. Bulgaria experiences high levels of corruption and organised crime as well as an ineffective justice system, showing that the institutions do not operate procedurally fair, which has caused high levels of public mistrust of state institutions and justice. This in turn created public dissatisfaction with the quality of life and can be an indicator for high levels of crime. The interview results show that especially bribery is a big problem in Bulgaria as opposed to the UK. Furthermore, no significant deviations for the measurement equivalence of trust in police effectiveness were found, showing that the relations between procedural justice and trust in the police appear comparable for respondents from both the UK and Bulgaria.

Based on the principles of procedural justice and the above-mentioned studies, the following hypothesis will be tested:

*H2: A lack of procedural justice causes less trust in the police.*

### *Crime rates*

Sampaio, Cunha, De-Losso, and De Pieri (2017) approach their research regarding trust in the police with reverse causation, where crime rates are the dependent variable that examines the

impact on trust in the police. The causal ordering concludes that where residents perceive higher crime rates, trust in the police is consequently lower. The researchers add to previous studies by analysing whether the general perception of trust in the police changes once crime rates change. This has been tested with 1005 respondents who lived in São Paulo state. The results of the study show that for all kinds of criminal activities, an increase in crime rates is negatively associated with trust in the police. The results furthermore show the importance of considering the relation between crime rates and trust in the police, as higher crime rates cause for less trust.

When studying predictors of trust in the police, it is important to embed the appropriate national context as the country's justice institutions, extent of criminal acts, and endurance of the democratic system vary widely (Malone, 2010). Besides, as mentioned earlier in the introduction, social, political, and demographic context can cause extensive cross-country crime rate differences. An element of the variation in crime rates can be whether victims genuinely take action to report the crime. A country might have frequent criminal activities taking place, however if not all victims report these crimes, the proportion of the issue is difficult to comprehend. This can be due to victims believing not much can be done about the situation, or they might doubt the competence of the police. In turn, besides frequent criminal activity, high crime rates can be explained by either victims trusting that the police are capable of solving crimes, or by people looking out for each other and therefore reporting every minor criminal activity, to create a safer environment (Soares, 2004).

The perception of crime plays an important role of trust in institutions. Recognizing the impact of crime on trust in institutions is important, as crime and violence are contributing factors for the decline of satisfaction and trust with institutions. The negative impact of crime on trust in institutions is problematic for policy implications. Distrust in institutions can lead to less participation from the citizens, meaning that they are less likely to report crimes, causing more crimes to happen unpunished, which in turn results in citizens refusing to accept reform efforts. Furthermore, distrust leads to lower levels of social capital. As social capital is a key determinant of economic growth and development, distrust in turn inhibits economic growth and development (Blanco & Ruiz, 2013).

Areas that are heavily policed are often also areas with high rates of concentrated violence, and consequently high levels of mistrust towards social institutions. When the police use tactics such as preventive frisking or preventive stops, they damage the relationship with the citizens they are striving to protect. The damaged relationship in turn leads to distrust in the criminal justice system, citizens being unwilling to cooperate, and an overall cynical view towards the police (La Vigne, Fontaine, Dwivedi & Center, 2017). The crime rate differences

can influence the level of trust in the police, as a lot of criminality can cause distrust in the police, as citizens do not believe in the competence of the police being capable of being in control over crime.

Coming from the findings on crime rates, the third hypothesis is derived:

*H3: Countries with a higher crime rate have less trust in the police.*

The level of crime in a country can have an influence on the relation between the predictors of trust in the police and the actual level of trust in the police. This is since social capital and procedural justice may matter less in a country that already has high crime rates. This can also be proposed the other way around: if a country has high crime rates, social capital and/or procedural justice can be necessary to gain proper trust in the police. The subject currently is understudied, as few to no studies have researched the topic of the predictors of trust in the police in relation to the crime rates of a country.

Resulting from the previous named studies, it is assumed that a higher crime rate leads to less trust in the police. It is not yet clear however, in which way the link between social capital, procedural justice, and trust in the police can be explained or interpreted. This leads to the following combination of hypotheses:

*H4A: The link between social capital and trust in the police is stronger for countries with a low crime rate.*

*H4B: The link between social capital and trust in the police is stronger for countries with a high crime rate.*

*H4C: The link between procedural justice and trust in the police is stronger for countries with a low crime rate.*

*H4D: The link between procedural justice and trust in the police is stronger for countries with a high crime rate.*

## **Method**

The purpose of this research is to answer the multiple research questions on differences in trust in the police in combination with various crime rates in different countries. The dataset that is used for this research is the European Social Survey (ESS). The ESS is an academically driven cross-national survey that has been conducted since it was founded in 2001. Every two years

new respondents from more than thirty nations execute the face-to-face interview answering questions regarding attitudes, beliefs, and behaviour patterns of personal, political, and worldview topics. The purpose of the ESS questionnaire is to outline stability and change in social structures, circumstances, and attitudes in Europe (ESS, 2022).

The ESS questionnaire consists of a selection of questions that are divided into two parts, consisting of a core module and a rotating module. The core module consists of questions that are essentially the same every round, with themes such as media and social trust, politics, subjective well-being, and a set of essential questions to determine the respondent's socio-demographics. The rotating module has a different set of questions each round, with themes such as health and care, social inequalities, justice, and democracy.

Participating countries must be able to represent the country in population and in the varying themes, therefore, the survey involves a strict random probability sampling method, including a minimum response rate of 70%. To be able to make inferences about the general population of the participating countries, every participating country must have a sample size of at least 1500 respondents. For countries with less than 2 million inhabitants, the sample size requires 800 participants (ESS, 2022).

### *Sample*

This study will use round 5 of the ESS data, which was conducted in 2010, including 27 European countries. The rotating module of round 5 is 'justice', covering 'trust in the police' and 'courts and work'. All of the items used in this research have three optional answers, which are 'refusal', 'don't know', and 'no answer', coded with respectively 77, 88, or 99. These answers have been set to be missing values and are excluded from this study. After removing the missing values from the dataset, the final N of the dataset is 46.709 respondents.

### **Variables**

#### *Trust in the police*

The dependent variable, trust in the police, was measured by combining several questions from the ESS questionnaire regarding the respondents view of the police. Four items from the dataset were combined to create a new variable of trust in the police. The items were questions such as '*Taking into account all the things the police are expected to do, would you say they are doing a good job or a bad job?*' and '*How successful do you think the police are at preventing crimes in your country?*'. All the questions used for the new variable were recoded to have the same

5-point answer scale, where '1' is the most positive and '5' is the most negative. Cronbach's Alpha for this new variable is .785.

### *Social capital*

Social capital is often measured through the number of times an individual is socially active through friends, family, or colleagues, or through how often they partake in social activities. Following previous research regarding social capital from Beilmann, Kööts-Ausmees and Realo (2018), the variable 'social capital' is measured through a single question from the ESS data. The question is: '*How often do you meet socially with friends, relatives or work colleagues?*'. This question has a 7-point answer scale, with 1 being 'never' and 7 being 'every day'. No other questions in the ESS data provided to be relevant items that had a strong correlation with the variable of social capital.

### *Procedural justice*

Procedural justice is also measured through multiple questions from the ESS questionnaire. The variable 'procedural justice' is composed of questions covering the four procedural characteristics: representation, neutrality, respect, and trustworthiness. Five items were used to construct the procedural justice variable, with items such as '*Based on what you have heard or your own experience, how often would you say the police generally treat people in your country with respect?*' and '*Please say to what extent you agree or disagree with the following statement about the police in your country: The police generally have the same sense of right and wrong as I do*'. Cronbach's Alpha has been tested for the new variable. Cronbach's Alpha for the new variable is .797. The five used items for the new procedural justice variable were recoded to all have a 4-point scale, where 1 is the most negative, and 4 is the most positive.

### *Control variables*

Considering that trust in the police can be influenced by numerous other factors, several control variables that are seen as important are added to the analysis. Often recurring control variables in studies done regarding the social capital theory and the procedural justice theory are gender, age, and level of education. As Cochran and Warren (2012) mention, criminologists have constantly emphasised the differential treatment that males and females experience regarding the criminal justice system. Furthermore, (minority) males are more likely to express dissatisfaction with the police than any other group. Age can have different impacts on the relationship with the police, as the youth tend to be more troublesome and have a more

problematic relationship with the police (Hurst, 2007). Finally, level of education can make a difference regarding trust in the police, as Boateng, Lee, and Abess (2016) found that the less educated reported greater confidence in the police in their study.

In the ESS data, the respondents were asked to define their gender by answering with 'male', 'female', or 'no answer'. In the analysis only the answer options 1, which is 'male', and 2, which is 'female', were considered to be part of the analysis. The age of the respondents has been calculated by ESS and lies between 14 and 102 years old. The highest level of education the respondent successfully completed has been calculated according to the International Standard Classification of Education (ISCED). The lowest option 0 is 'not finished elementary school', the highest option 6 is 'doctoral degree'.

### *Crime data*

To be able to determine and to make a selection whether countries are considered countries that have a high crime rate or countries that have a low crime rate, data had to be selected. It has been decided to look at the homicide rate of countries, as these rates show a stable source of criminality in a country. The homicide rates of countries are also less sensitive to detection and registration issues compared to other offences, and they are suitable as indicators of serious crime (Malby, 2010). The data used for this study comes from the United Nations Office on Drugs and Crime, also known as UNODC, from the official United Nations website. The data for this study is collected through national authorities all across the world, through the annual United Nations Crime Trends Survey (UN-CTS). Data that was not available through this survey has been sourced from the most reliable sources available (dataUNDOC, n.d.). The homicide rate of the 27 countries that are part of this study are added into the data file. All of the data stems from 2010, which is the same year as the selected wave of the survey. The homicide rate counts per 100,000 population. The median of the data is selected to obtain a balanced number of countries that belong to either countries with lower crime rates or countries with higher crime rates. Table 1 in the Appendix shows the division of countries. It has been chosen to dichotomize the variable, to simplify the interpretation and to avoid the problem of outliers. In the data the value 0 is 'low crime' and the value 1 is 'high crime'.

### *Analysis*

To analyse the impact on trust in the police, the first part of the analysis will consist of examining all the included variables that will be used in this study. Next, a Pearson's Correlation and a Point-Biserial correlation have been carried out for the dependent variable

trust in the police and each of the independent variables as well as the control variables. Following, an interaction effect on both the variable social capital and procedural justice have been created in combination with the variable country. Subsequently, three regression analyses have been carried out. Firstly, all the control variables have been added in the regression analysis to state their impact. The second regression analysis tested the social capital theory and the procedural justice theory on trust in the police with the control variables included as well. Lastly, all of the variables are included, and the interaction variables are added to test the effect on trust in the police.

## Results

**Table 1.** *Descriptive statistics*

	N	Min	Max	Mean	S.D.
<i>Dependent variable</i>					
Trust in the police	46709	1	5	3.6606	.75040
<i>Independent variables</i>					
Social capital	46709	1	7	4.84	1.617
Procedural justice	46709	1	5	2.6846	.59614
Country	46709	0	1	.5208	.49957
<i>Control variables</i>					
Gender	46709	1	2	1.54	.498
Education	46709	0	6	3.1736	1.39430
Age	46709	14	102	48.36	18.703

The descriptive statistics of the variables used for the regression analysis on trust in the police are shown in Table 1. The final sample of the dataset consists of 46.709 respondents, originating from 27 European countries. The total percentage of men participating in this study is slightly smaller (45.5%) than the total percentage of women participating in this study (54.5%) (mean = 1.54, min = 1, max = 2, SD = .498). The average age of the respondents is 48 years old (mean = 48.36, min = 14, max = 102, SD = 18.703). The standard deviation of the variable age is large (18.703), showing that many respondents are either younger or older than the average age of 48 years old. The average score on level of education is 3.17, showing that most respondents

have completed higher secondary education (mean = 3.1736, min = 0, max = 6, SD = 1.39430). The mean index of the variable trust in the police is 3.66, which is above half of the 5-point scale. Looking at the social capital variable, it is shown that the average score on social capital in regard to trust in the police is 4.84 (mean = 4.84, min = 1, max = 7, SD = 1.617). This means that on average, the respondents answered this question with a '5' regarding trust in the police on a 7-point scale. Furthermore, procedural justice shows a 2.68 average score, which is just over half of the 5-point scale (mean = 2.6846, min = 1, max = 5, SD = .59614). Finally, the mean scores of the level of perceived procedural justice in countries with high and low crime rates have been looked at, as well as the mean scores of the level of trust in the police in countries with high and low crime rates. The scores are as follows: low crime trust (mean = 3.8131), high crime trust (mean = 3.5202), low crime procedural justice (mean = 2.8115), high crime procedural justice (mean = 2.5678). All of the scores are measured on a 1 to 5 scale.

## Correlations

**Table 2.** *Correlations (N = 46709)*

	Trust in the police
<i>Independent variables</i>	
Social capital	.030***
Procedural justice	.623***
Country	-.195**
<i>Control variables</i>	
Gender	.006
Education	-.065***
Age	.073***

*Note:* \*\*\* =  $p < .001$ , \*\* =  $p < .01$ .

Table 2 shows the results of multiple correlation analyses that were executed to test the correlation between the dependent variable, the independent variables, and the control variables. Both a Pearson's correlation and a Point-Biserial correlation have been carried out for the independent variables and the control variables. All of the variables show a significant correlation between said variable and trust in the police except for gender. However, most of the correlations between the variable and trust in the police appear to be rather small. The

correlation between procedural justice and trust in the police shows to be the biggest ( $r(46707) = .623, p < .001$ ). Finally, solely the dummy variable country ( $r(46707) = -.195, p < .01$ ) and education ( $r(46707) = -.065, p < .001$ ) show a low to average negative correlation with trust in the police.

## Regression

**Table 3.** Regression analysis with variables predicting trust in the police ( $N = 46709$ )

	Model 1		Model 2		Model 3	
	B (SE)	$\beta$	B (SE)	$\beta$	B (SE)	$\beta$
<b>Constant</b>	3.623*** (.017)	-	1.629*** (.020)	-	1.698*** (.020)	-
<b>Gender</b>	.004 (.007)	.003	.005 (.005)	.003	.010 (.005)	.007
<b>Education</b>	-.029*** (.003)	-.053	-.027*** (.002)	-.050	-.025*** (.002)	-.047
<b>Age</b>	.003*** (.000)	.063	.000 (.000)	-.003	.000 (.000)	.03
<b>Social Capital</b>			.003 (.002)	.006	.001 (.002)	.002
<b>Procedural Justice</b>			.782*** (.005)	.622	.754*** (.005)	.599
<b>Country</b>					-.111*** (.006)	-.074
<b>County*Social Capital</b>					.009**	.010

			(.003)	
<b>Country*Procedural Justice</b>			.122***	.047
			(.009)	
R <sup>2</sup>	.008	.390	.398	
F	126.950***	5983.535***	3853.287***	

Note: \*\*\* =  $p < .001$ , \*\* =  $p < .01$ . The values in parentheses are the Standard Error.

Table 3 shows the three regression models that were performed for this analysis. The first model shows the results for the three control variables (gender, education, age) on the dependent variable ‘trust in the police’. The first regression model shows a significant result, ( $R^2 = .008$ ,  $F(8, 46700) = 126.950$ ,  $p < .001$ ), although solely the control variable gender did not result in a statistically significant effect. 0.8% of the variance in this model is explained by the three control variables. The results of the model show that there is no significant effect of the control variable gender ( $B = .004$ ,  $t(210.981) = .557$ ,  $p = .557$ ), however the control variable education ( $B = -.029$ ,  $t(210.981) = -11.309$ ,  $p = .000$ ), and the control variable age ( $B = .003$ ,  $t(210.981) = 13.390$ ,  $p = .000$ ) did show significant effects. Model 1 shows that age resulted in a very small positive effect on trust in the police, while education resulted in a very small negative effect on trust in the police.

The second model in Table 2 shows the regression analysis for the independent variables social capital and procedural justice, as well as the three control variables. Model 2 shows statistically significant effects on the model as a whole and on some of the variables included ( $R^2 = .390$ ,  $F(5, 46703) = 5983.535$ ,  $p < .001$ ). The control variables gender ( $B = .005$ ,  $t(80.857) = .947$ ,  $p = .344$ ), education ( $B = -.027$ ,  $t(80.857) = -13.637$ ,  $p = .000$ ), and age ( $B = .000$ ,  $t(80.857) = -.671$ ,  $p = .502$ ) as well as the independent variable social capital ( $B = .003$ ,  $t(80.857) = 1.590$ ,  $p = .112$ ) all show relatively small effects on the dependent variable trust in the police, however gender, age, and social capital do not prove to be statistically significant. As the variable social capital is not significant, there is no support for the first hypothesis ‘*More social capital leads to more trust in the police*’. Furthermore, as there is a small negative effect of education on trust in the police, it cannot be said that the higher the education, the more trust in the police. The biggest significant effect that Model 2 shows is procedural justice ( $B = .782$ ,  $t(80.857) = 170.646$ ,  $p = .000$ ). Model 2 shows that 39% of the variance is explained, mainly through the independent variable procedural justice. The significant effect of Model 2 and the

high explained variance by procedural justice show support for the second hypothesis '*A lack of procedural justice causes less trust in the police*'. The positive significant effect of procedural justice on trust in the police in Model 2 indicates that more procedural justice causes more trust in the police.

Finally, Model 3 displays the effect of the three control variables, the independent variables social capital and procedural justice, the variable country, and the interaction variables of country with social capital and procedural justice on trust in the police. The regression model proved to be significant ( $R^2 = .398$ ,  $F(8, 46700) = 3853.287$ ,  $p < .001$ ). Model 3 firstly shows the three control variables gender ( $B = .010$ ,  $t(83.837) = 1.890$ ,  $p = .059$ ), education ( $B = -.025$ ,  $t(83.837) = -12.671$ ,  $p = .000$ ), and age ( $B = .000$ ,  $t(83.837) = .661$ ,  $p = .509$ ). In this model, solely education has a significant effect on trust in the police. However, the negative effect education has on trust in the police is rather diminutive due to the small size. Secondly, Model 3 shows the two independent variables social capital ( $B = .001$ ,  $t(83.837) = .570$ ,  $p = .569$ ), and procedural justice ( $B = .754$ ,  $t(83.837) = 159.721$ ,  $p = .000$ ). Solely the variable procedural justice shows a big statistically significant effect on trust in the police. Thirdly, Model 3 shows the centered variable country. The results show a negative significant effect ( $B = -.111$ ,  $t(83.837) = -20.118$ ,  $p = .000$ ). The negative coefficient mainly shows that people in high crime countries are less satisfied with the police. This means that hypothesis 3 '*Countries with a higher crime rate have less trust in the police*' can be supported, as the model shows that countries that are labeled as 'low crime' countries tend to have more trust in the police. Finally, both the interaction term variables are added to Model 3. The interaction term country with social capital ( $B = .009$ ,  $t(83.837) = 2.799$ ,  $p = .005$ ) and the interaction term country with procedural justice ( $B = .122$ ,  $t(83.837) = 12.888$ ,  $p = .000$ ) both show a small significant effect on trust in the police. Model 3 explains 39,8% of the variance on trust in the police by all the included variables, which is just slightly bigger than Model 2, which explained 39% of the variance on trust in the police. This leads to the outcome that hypothesis 4A '*The link between social capital and trust in the police is stronger for countries with a low crime rate*' and hypothesis 4B '*The link between social capital and trust in the police is stronger for countries with a high crime rate*' cannot be proven, as the results of social capital on trust in the police in the regression analysis are not significant. The results of both Model 2 and Model 3 show a large significant effect of procedural justice on trust in the police. The effect of procedural justice appears to be more closely related to trust in the police in countries with a higher crime rate. Therefore, hypothesis 4D '*The link between procedural justice and trust in the police is stronger for countries with a high crime rate*' can be proven, and hypothesis 4C '*The link*

*between procedural justice and trust in the police is stronger for countries with a low crime rate' cannot be proven.*

### **Conclusion and discussion**

The aim of this study was to examine what factors influence trust in the police. This has been researched through multiple research questions, the first being *'To what extent do people have trust in the police?'*, and the second being *'What factors explain trust in the police and to what extent does this differ for countries with a high or low crime rate?'*. The hypotheses that have been formulated to answer these questions were derived from the social capital theory and the procedural justice theory. Often found in research as a key variable for trust in the police was the importance of social capital. The main concept of the social capital theory are the informal values and norms shared among group members that generate trust. The expected outcome of the first hypothesis was therefore that *'More social capital leads to more trust in the police'*. The second regression analysis aimed to test this hypothesis. The regression model showed that the variable of social capital was not significant. Therefore, the first hypothesis cannot be confirmed. This result shows a discrepancy with results from the study done by Sun, Hu, and Wu (2012), Van Craen (2013), and the study from MacDonald and Stokes (2006) as their studies found that social capital was a key variable for trust in the police. The discrepancy likely comes from two factors, namely the differences in cultural context, and the way social capital has been measured. In Sun, Hu, and Wu's study, frequency of social activity did not enhance the effect on trust much either, which is in line with the results from this study.

The procedural justice theory mainly focuses on the procedurally fair manner in which the police should execute their authority in order to be perceived as more legit and more trustworthy. The second hypothesis tested in this regression analysis is *'A lack of procedural justice causes less trust in the police'*. The models in which the procedural justice theory was tested came out significant. Furthermore, the significant and large outcome of procedural justice in both Model 2 and Model 3 shows support for the second hypothesis, namely that a lack of procedural justice causes less trust in the police. These results are in line with the study results as found by Hinds and Murphy (2007), as well as by Murphy, Mazerolle, and Bennett (2013). These studies also found a strong connection between procedural justice and trust in the police, where higher levels of procedural justice cause for higher levels of trust in the police.

In all the three of the regression analysis, the three control variables gender, education, and age did not have a big influence on the outcome of trust in the police. Moreover, the

interaction terms between country, social capital, and procedural justice did not have a large contribution to trust in the police either.

The third hypothesis '*Countries with a higher crime rate have less trust in the police*' looked at the differences between countries with either a high or a low crime rate. The negative effect of the variable on trust in the police shows support for the third hypothesis. In line with the third hypothesis, it is found that countries with a higher crime rate have less trust in the police, and thus countries that have a lower crime rate have more trust in the police. These findings can be explained by the fact that countries that have a higher crime rate likely have less social capital and procedural justice in their systems.

Based on the outcome of the multiple regression analyses, it can be assumed that for the most part, procedural justice explains the largest section of trust in the police in this study. The results show support for hypothesis 4D '*The link between procedural justice and trust in the police is stronger for countries with a high crime rate.*'. The difference between countries with a low crime rate and a high crime rate on trust in the police is limited, however, procedural justice appears to be somewhat more closely related to trust in the police in countries with a higher crime rate. Thus, even though there is no sign of an extreme difference between the two types of countries, the relationship between procedural justice and trust in the police is slightly bigger in countries with more crime. These results are essentially in line with results from the study from Jackson et al (2011), where the relation between procedural justice and trust in the police appears comparable for respondents from the UK and Bulgaria. In addition, the mean scores of perceived procedural justice in countries with either a high or a low crime rate show similar results. While there are clear differences between the mean scores of the perceived level of procedural justice in countries with either a high or a low crime rate, the mean scores of countries with a lower crime rate do not fall markedly behind the mean scores of countries with a higher crime rate, showing that the differences are not extreme.

Looking at the first research question, to what extent people have trust in the police, over 88% of the respondents' answered questions regarding their views of the police in favour of the police. The mean index of the variable trust in the police is 3.66, concluding that the overall view on trust in the police is rather positive. To answer the second research question '*What factors explain trust in the police and to what extent does this differ for countries with a high or low crime rate?*', the multiple regression analyses that have been performed evidently show that procedural justice explains trust in the police for the biggest part, and that procedural justice is slightly more closely related in countries with a higher crime rate.

This study is an addition to already existing research and contributes to previous literature by expanding the knowledge on the topic of trust in the police in 27 different European countries whilst also considering crime rates. There are several challenges and limitations that will be described. Firstly, the fifth wave of the European Social Survey was conducted and up for use in 2010. As it was a different time with different circumstances than present-day, it is possible that the public in general has a different view on the police and how much they can be trusted. This means that if this study were conducted with data from nowadays, it is possible that the common views on trust in the police have changed as well as accordingly the results of the analysis. This therefore is also the first limitation of this study. Besides that, it was challenging to find studies that were applicable on the combination of trust in the police whilst also looking at the different crime rates of a country. As mentioned in the theory section, the topic of crime rates in combination with trust in the police is currently understudied. Due to this, most of the research found on this topic was performed in countries such as Brazil. To a limited extent some of these studies can provide similarities with several Eastern European countries looking at social-economic status and some cultural aspects, however finding more fitting studies on crime rates in Europe was challenging. As the relevance of the found studies was important, it was decided to include these findings in this study.

A large sample size regularly comes with certain advantages, such as reliable and accurate results and a better representation of the population. On the contrary, a large sample size can create the limitation of statistical significance. The large amount of data can cause results to be statistically significant rather quickly, even trivial effects. This results in either the risk of over-interpretation, or difficulty interpreting the statistics in general. In addition to this comes the fact that most variables have rather small effects on the variable trust in the police. The large sample size in combination with often recurring small effects in the analysis show that caution needs to be used when interpreting the results. This limitation has been considered as much as possible by closely looking at the effect size throughout the analysis. Finally, one of the predicting variables, social capital, was measured with only one question from the ESS data. This decision was made since no other questions would positively add to the single question of the measurement of social capital. This clearly is a deviation from all other variables that mostly consist of four or five questions from the ESS data and are added together to continue with one big variable. The deviation in the variable social capital can cause differences in the results of social capital, as opposed to if social capital would have also been made up from multiple questions. This in turn can influence the conclusions that have been made in this study, as there are always possible other explanations for the obtained results. The question

regarding social capital that the variable was solely made up of, focuses on how often people meet their relatives or friends. Different conclusions could have been made if the variable would have been made up with more or different questions regarding social capital.

As the subject of trust in the police, mainly focusing on the comparison of different crime rates in different countries in Europe, is currently understudied, future studies should focus on the topic of the predictors of trust in the police in relation to the crime rates of a country. As the hypotheses regarding the topic of trust and crime support the idea that higher crime rates cause for less trust in the police, more in depth research should be done regarding this topic, covering different parts of the world, and focusing on the explanation of it. Moreover, more research enlightening the different countries in Europe could contribute to already existing literature on the Southern American countries. Even though the results from this study show that the differences between the two groups of countries were not extensive, it would be interesting for future research to investigate what can explain this phenomenon. Furthermore, although the number of registered homicides provides a more reliable crime-number than for many other types of crimes, it still is a limited measure of the overall crime level in a country. Therefore, it is not clear whether people in countries with more homicides automatically feel less safe.

### **Policy Advice**

To answer the final research question *‘What policy suggestions can be derived from explanations for the level of trust in the police?’* it is important to look at the most prevailing conclusions from this study, to be able to give recommendations for strengthening the current levels of trust in the police. Derived from the conclusions, it is clear that procedural justice matters most in regard to trust in the police. Therefore, the most important policy recommendation that would be suggested is to implement procedural justice more in the ways the police execute their jobs. In line with research from Murphy, Mazerolle, and Bennett (2014), it was found that the right form of procedural justice has a substantial influence on trust in the police. In their research, a ‘procedural justice script’ was created, which introduced four procedural justice elements, namely voice, neutrality, trustworthiness, and respect, which were contradictory with the ‘normal business’ of how the police operate. The procedural justice manipulation provided a large significant effect on trust in the police. Not only did the findings of the research done by Murphy, Mazerolle, and Bennett present a positive effect on trust in the police through the implementation of procedural justice, it also improved overall confidence in the police, and it caused for more willingness to cooperate and comply with the police. As

procedural justice appears to be the most important, it is essential to look at different options of implementations for policy advice. Based on this, it would be suggested to implement a similar system of the procedural justice script in other countries, to stimulate the positive influence on trust in the police. More specifically, the National Initiative for Building Community Trust and Justice (NIBCTJ, 2022) has created a facilitator guide and course on how to implement procedural justice in police operations, specifically focusing on the four most important components of procedural justice. This guide can help police officers understand and implement the practices of procedural justice better, with the goal to improve the trust citizens have in the police. Implementing this practice would be beneficial in improving the trust citizens have in the police. Although the facilitator guide has not been thoroughly evaluated yet, this advice conforms to the theory's assumptions and the results of this study.

The lessons of procedural justice should especially be implemented in countries with a higher crime rate, as both the mean level of trust in the police and the mean level of perceived procedural justice are lower in countries with a higher crime rate. And as the results of this study show, procedural justice is, to a limited extent, extra important in countries with a high crime rate, meaning that in both cases there is more to win when it comes to increasing trust between citizens and the police in countries with a high crime rate.

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## Appendix

### Appendix 1. Division of countries

High crime	Homicide rate
Belgium	1.7
Bulgaria	2
Estonia	5.3
Finland	2.2
France	1.3
Greece	1.6
Croatia	1.4
Hungary	1.4
Israel	2
Lithuania	7
Portugal	1.3
Russia	11.6
Slovakia	1.5
Ukraine	4.3

*Median = 1.2. N=14.*

Low crime	Homicide rate
Switzerland	0.7
Cyprus	0.7
Czechia	1
Germany	1
Denmark	0.8
Spain	0.9
United Kingdom	1.1
Ireland	1.2
The Netherlands	0.9
Norway	0.6
Poland	1
Sweden	1
Slovenia	0.7

*Median = 1.2. N=13.*

## Appendix 2. Syntax Output

GET FILE=' /Users/puckvanhaarlem/Downloads/ESS5e03\_4.sav'.

DATASET NAME DataSet1 WINDOW=FRONT.

\*Check dependent variable questions.

USE ALL.

DESCRIPTIVES plcjbcn plcpvcr plccbrg gsupplc.

FREQUENCIES plcjbcn plcpvcr plccbrg gsupplc.

FREQUENCIES cntry.

\*Recode for questions with different measure scale.

RECODE plcpvcr (0 01 = 5) (02 03 = 4) (04 05 = 3) (06 07 08 = 2) (09 10 = 1) INTO policetrust.

DESCRIPTIVES policetrust.

FREQUENCIES policetrust.

RECODE plccbrg (0 01 = 5) (02 03 = 4) (04 05 = 3) (06 07 08 = 2) (09 10 = 1) INTO police.

DESCRIPTIVES police.

FREQUENCIES police.

\*Add value labels to new variables.

VALUE LABELS policetrust 1 'Extremely succesful' 5 'Extremely unsuccessful'.

FREQUENCIES policetrust.

VALUE LABELS police 1 'Extremely succesful' 5 'Extremely unsuccessful'.

FREQUENCIES police.

\*Check cronbachs alpha for new variables.

RELIABILITY

/VARIABLES plcjbcn gsupplc policetrust police /STATISTICS CORRELATIONS

/SUMMARY TOTAL.

\*Put variables together for one new variable for dependent variable.

COMPUTE trustpolice = MEAN (plcjbcn, gsupplc, policetrust, police).

FREQUENCIES trustpolice.

\*Recode trustpolice so all variables have same interpretation.

USE ALL.

RECODE trustpolice (1 1.25 1.33 1.50 1.67 1.75 = 5) (2 2.25 2.33 2.50 2.67 2.75 = 4) (3 3.25 3.33 3.67 3.75 = 3) (4 4.25 4.33 4.50 4.67 4.75 = 2) (5 = 1) INTO trustthepolice.

USE ALL.

DESCRIPTIVES trustthepolice.

FREQUENCIES trustthepolice.

\*Check social capital question.

DESCRIPTIVES sclmeet sclact.

FREQUENCIES sclmeet sclact.

\*Try reliability for social capital.

RELIABILITY

/VARIABLES sclmeet sclact /STATISTICS CORRELATIONS

/SUMMARY TOTAL.

\*Continue with solely meet as the two questions together do not have a good cronbachs alpha.

\*Check procedural justice questions.

DESCRIPTIVES plcrspc plcfrdc plcrgwr plcipvl plcexdc.

FREQUENCIES plcrspc plcfrdc plcrgwr plcipvl plcexdc.

\*Recode for questions with different measure numbers.

RECODE plcrgwr (1 = 4) (2 = 3) (3 = 2) (4 5 = 1) into rightwrong.

FREQUENCIES rightwrong.

RECODE plcipvl (1 = 4) (2 = 3) (3 = 2) (4 5 = 1) into values.

FREQUENCIES values.

\*Add value labels for new variables.

VALUE LABELS rightwrong 1 'Disagree strongly' 2 'Disagree' 3 'Agree' 4 'Agree strongly'.

FREQUENCIES rightwrong.

VALUE LABELS values 1 'Disagree strongly' 2 'Disagree' 3 'Agree' 4 'Agree strongly'.

FREQUENCIES values.

\*Reliability for procedural justice.

RELIABILITY

/VARIABLES plcrspc plcfrdc rightwrong values plcexdc /STATISTICS CORRELATIONS  
/SUMMARY TOTAL.

\*Put variables together for one new variable for procedural justice.

COMPUTE procjust = MEAN (plcrspc, plcfrdc, rightwrong, values, plcexdc).

DESCRIPTIVES procjust.

FREQUENCIES procjust.

\*Check control variables.

DESCRIPTIVES gndr agea edulvlb.

FREQUENCIES gndr agea edulvlb.

DESCRIPTIVES sclmeet trustthepolice procjust.

FREQUENCIES sclmeet trustthepolice procjust.

\*Recode education.

RECODE edulvlb (0 = 0) (113 = 1) (129 212 213 221 222 223 = 2) (229 311 312 313 321 322  
323 = 3) (412 413 421 422 423 = 4) (510 520 610 620 710 720 = 5) (800 = 6) INTO education.

FREQUENCIES education.

VALUE LABELS education 0 'not finished primary education' 1 'completed primary education'  
2 'lower secondary education' 3 'higher secondary education' 4 'associate degree' 5 'bachelor-  
master' 6 'doctoral degree'.

FREQUENCIES education.

DESCRIPTIVES education.

\*Check correlations between dependent variable trust and independent variable social capital.

USE ALL.

CORRELATIONS trustthepolice sclmeet

/MISSING LISTWISE

/PRINT ONETAIL.

\*Check correlations between trust and procedural justice.

```
CORRELATIONS trustthepolice procjust  
/MISSING LISTWISE  
/PRINT ONETAILED.
```

\*Check correlations between trust and control variable.

```
CORRELATIONS trustthepolice gndr  
/MISSING LISTWISE  
/PRINT ONETAILED.
```

\*Check correlations between trust and control variable.

```
CORRELATIONS trustthepolice education  
/MISSING LISTWISE  
/PRINT ONETAILED.
```

\*Check correlations between trust and control variable.

```
CORRELATIONS trustthepolice agea  
/MISSING LISTWISE  
/PRINT ONETAILED.
```

\*Count missingvar for the same N for every variable.

```
COUNT MISSINGVAR = trustthepolice sclmeet procjust gndr education agea (MISSING).  
FREQUENCIES MISSINGVAR.  
SELECT IF MISSINGVAR = 0.
```

\*Check count missingvar.

```
DESCRIPTIVES trustthepolice sclmeet procjust gndr education agea.
```

\*Create dummy's for lowcrime and highcrime.

```
COMPUTE dummy = 0.  
IF cntry = 'CH' dummy = 0.  
IF cntry = 'CY' dummy = 0.  
IF cntry = 'CZ' dummy = 0.  
IF cntry = 'DE' dummy = 0.  
IF cntry = 'DK' dummy = 0.
```

```
IF cntry = 'ES' dummy = 0.
IF cntry = 'GB' dummy = 0.
IF cntry = 'IE' dummy = 0.
IF cntry = 'NL' dummy = 0.
IF cntry = 'NO' dummy = 0.
IF cntry = 'PL' dummy = 0.
IF cntry = 'SE' dummy = 0.
IF cntry = 'SI' dummy = 0.
IF cntry = 'BE' dummy = 1.
IF cntry = 'BG' dummy = 1.
IF cntry = 'EE' dummy = 1.
IF cntry = 'FI' dummy = 1.
IF cntry = 'FR' dummy = 1.
IF cntry = 'GR' dummy = 1.
IF cntry = 'HR' dummy = 1.
IF cntry = 'HU' dummy = 1.
IF cntry = 'IL' dummy = 1.
IF cntry = 'LT' dummy = 1.
IF cntry = 'PT' dummy = 1.
IF cntry = 'RU' dummy = 1.
IF cntry = 'SK' dummy = 1.
IF cntry = 'UA' dummy = 1.
VALUE LABELS dummy 0 'lowcrime' 1 'highcrime'.
FREQUENCIES dummy.
DESCRIPTIVES dummy.
```

```
COUNT MISSINGVAR = trustthepolice gndr agea edulvlb dummy (MISSING).
FREQUENCIES MISSINGVAR.
SELECT IF MISSINGVAR = 0.
```

```
T-TEST GROUPS dummy (0 1)
/VARIABLES sclmeet procjust.
```

\*Check correlations for country.

## CORRELATIONS

```
/VARIABLES=trustthepolice dummy  
/PRINT=TWOTAIL NOSIG  
/STATISTICS DESCRIPTIVES XPROD  
/MISSING=PAIRWISE.
```

\*Create mean for social capital.

```
AGGREGATE outfile * mode addvariables  
/mean_soccap = mean(sclmeet).  
COMPUTE centsoc = sclmeet - mean_soccap.  
DESCRIPTIVES sclmeet centsoc.  
DELETE VARIABLES mean_soccap.
```

\*Create mean for procedural justice.

```
AGGREGATE outfile * mode addvariables  
/mean_procjust = mean(procjust).  
COMPUTE centproc = procjust - mean_procjust.  
DESCRIPTIVES procjust centproc.  
DELETE VARIABLES mean_procjust.
```

\*Create mean for country.

```
AGGREGATE outfile * mode addvariables  
/mean_dummy = mean(dummy).  
COMPUTE centdummy = dummy - mean_dummy.  
DESCRIPTIVES dummy centdummy.  
DELETE VARIABLES mean_dummy.
```

\*Make new variable for interaction effect social capital.

```
USE ALL.  
COMPUTE interactionscl = centdummy*centsoc.  
FREQUENCIES interactionscl.
```

\*Make new variable for interaction effect procedural justice.

```
COMPUTE interactionprocjust = centdummy*centproc.
```

FREQUENCIES interactionprocjust.

REGRESSION

/STATISTICS COEFF OUTS R ANOVA CHANGE

/CRITERIA=PIN(.05) POUT(.10)

/DEPENDENT trustthepolice

/METHOD ENTER gndr education agea.

\*Regression analysis for independent variables.

REGRESSION

/STATISTICS COEFF OUTS R ANOVA CHANGE

/CRITERIA=PIN(.05) POUT(.10)

/DEPENDENT trustthepolice

/METHOD ENTER gndr education agea sclmeet procjust.

\*Regression analysis for both interaction effects.

REGRESSION

/STATISTICS COEFF OUTS R ANOVA CHANGE

/CRITERIA=PIN(.05) POUT(.10)

/DEPENDENT trustthepolice

/METHOD ENTER gndr education agea sclmeet procjust dummy centdummy interactionscl  
interactionprocjust.

MEANS trustthepolice procjust BY dummy

/CELLS MEAN MIN MAX

/STATISTICS LINEARITY.