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Reconsidering the Empirical Measurement of Trust towards Unknown Others

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Abstract: Trust towards unknown others is a fundamental issue in trust research. Actually, it can be said that this problematization is a generative source for the whole scientific framing of trust, regardless of its specific perspective, whether it is a psychological, situational, institutional or structural-cultural interpretation. This means that the notion of 'generalized trust' is definitely a core concept and a reference point for all research agendas in the field of trust studies. However, this status of the notion is heavily criticized both from a theoretical and empirical point of view. The current paper tries to contribute to these academic discourses by proposing an extended reading of the concept of trust towards unknown others. By doing this, the paper suggests that the focus cannot be only on the aspect of how one perceives others' trustworthiness, which is measured by the so-called 'standard trust variable'; it should also be considered how the given agent relates herself/himself to other people's otherness. Therefore, the argument simply claims that trusting people in general means being open to others' otherness. If this link cannot be explored, then trust in unknown others is constrained and limited. Using data obtained from the last two rounds of the European Social Survey, the paper presents a 31-country-based comparative statistical analysis realized on both macro- and micro-levels in order to find out whether the above-described theoretical linkage is verifiable or not.

Keywords: trust towards unknown others; otherness; standard trust variable; European Social Survey; Europe

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1. Introduction

Trust is considered a relevant topic in the social sciences, particularly in the fields of sociology, political science, economics, management studies, and psychology. Research agendas of trust usually apply multidisciplinary approaches based on refined theoretical backgrounds and complex empirical frameworks (Bachmann and Zaheer 2006; Cook 2001; Gambetta 1988; Lyon et al. 2012; Uslaner 2018). There are numerous studies in the literature that claim that trust, and especially 'generalized trust', i.e., trust towards unknown others irrespective of their sameness or otherness, is favorable both in the micro and macro senses (Baier 1995; Barber 1983; Fukuyama 1995; Luhmann 1979; Seligman 1997; Sztompka 1999; Uslaner 2002). These debates all agree that trust contributes to the broadly definable wellbeing of individual subjects while also facilitating social integration and cohesion. In other words, generalized trust towards unknown others has a special conceptual status (Tamilina 2018). This is because some believe that this concept encapsulates all trust-related theories into a single multilayered framework (e.g., Seligman 1997; Sztompka 1999; Uslaner 2002; Füzér 2016). Other theorists, on the other hand, vehemently deny this status of generalized trust and label it instead as a certain form of blind trust, which is useless or even dangerous (Hardin 2002, 2006; Nannestad 2008). All in all, there is continuous academic debate in connection with the notion, which generates both critical reflections and progressive clarifications, while due to its synthesizing and overarching conceptual

character, there are an increasing number of research agendas with the goal of reinventing the original idea of generalized trust.

Trust research has diverse focus points and theoretical framings. Some scholars concentrate on exact social interactions that may be described by tangible and palpable circumstances and attempt to determine how people perceive others' trustworthiness, both in a more general sense and with respect to particular situations. This approach is strongly linked to rational choice theory (Coleman 1990; Cook and Santana 2018; Dietz 2011; Möllering 2006) and considers trust as something rationally justified. Another theoretical framing identifies institutions as the primary source of trust and claims that subjects do not really trust each other in an interpersonal sense but through the mediation of certain formal and informal institutions (Bachmann 2011; Newton 2001; Norris 1999; Nooteboom 2006; Rothstein and Stolle 2002). Others believe that it is not institutions as such but rather cultural patterns, and most importantly, references with moral-ethical content, that make people trust others. The individual experience of the social acknowledgement of these references (or their lack) and the perceived moral-ethical character of other people drive one's actorness in the displaying or withdrawing of trust (Seligman 1997; Wilson 1993). Finally, there are theorists who say that psychologically relevant life events and the emotional constellation of these interiorized experiences are the real sources of trust or distrust. This approach understands trust/distrust as the dispositions of individual subjects (Giddens 1990). Accordingly, trust research has horizontal (interaction-based and interpersonal) approaches, vertical approaches (in which abstract entities, such as institutions and cultural patterns, provide trusting or distrusting social environments for people, and the interpersonal situation has only secondary importance in whether trust is displayed or not), and also intrapersonal framings (such as certain psychological concepts).

Compared to these inter-, intra-, and subjective trust research agendas, the notion of generalized trust strives to propose a meta- or rather multi-theoretical interpretation, which enables the researcher to reflect on all of these dimensions. Generalized trust, i.e., the accumulation in the social setting of different forms of personal relatedness towards unknown others and their otherness, has fundamental impacts on social interactions, on the process of the sociopolitical development of formal and informal institutions, on the construction and deconstruction of cultural references and their meanings, as well as on subjectively interiorized psychologically relevant life events. Therefore, generalized trust towards the widest possible group of people affects all other forms of trust. However, in spite of the rich conceptual background of generalized trust, the empirical measurement of this notion is somewhat underdeveloped and lacks sufficient clarification.

With respect to research methods, the most common are the self-report questionnaire, which measures the concept directly, and the indirect experimental method, which monitors trust-related decisions and behavior. The most prevalent survey item is often referred to in the literature as a 'standard trust question', which reads as follows: "Generally speaking, would you say that most people can be trusted, or that you cannot be too careful in dealing with people"? The extensive use of this standard question in surveys started in the 1960s, first in the American National Election Studies (ANES) and, from 1972, in the General Social Survey (GSS). It can be said that the standard question is the most common trust measurement tool in use today. Well-known cross-national comparative surveys, such as the World Values Survey, Eurobarometer, the European Values Study, and the European Social Survey, contain this question. Furthermore, this tool of trust measurement is even occasionally included in official statistical surveys. Nonetheless, it is important to note that despite the dominant status of the standard question in various research agendas, there are other survey techniques that aim to capture generalized trust by different means (e.g., Rotter 1967; Yamagishi and Yamagishi 1994). These latter questionnaire set-ups are less widespread, usually because these measurement tools are longer and more complex, so it is hard to insert them into cross-national surveys covering several other subject areas.

All in all, generalized trust operationalized by the standard question is a crucial topic to be addressed both in itself as a social phenomenon and in connection with many other

aspects. In recent years, research has examined the perceived linkages where trust has a potentially significant role, such as its impact on economic growth (Algan and Cahuc 2010, 2013; Tabellini 2010); welfare state development (Bergh and Bjørnskov 2011, 2014; Daniele and Geys 2015; Rothstein and Uslaner 2005); political participation (Almond and Verba 1963; Inglehart and Norris 2003; Putnam 2000); the functions of civil society (Brehm and Rahn 1997; Glanville et al. 2013; Paxton 2007); religion (Seymour et al. 2014; Welch et al. 2004); ethnic diversity (Dinesen and Sønderskov 2015; Hooghe et al. 2009); political institutions and their functionality (Bjørnskov 2007; Dinesen 2013; Delhey and Newton 2005; Freitag and Bühlmann 2009; Herreros 2004); and on post-materialist values (Bodor et al. 2020; Tam and Chan 2018). While the interrelationships among certain socio-demographic characteristics and trust (such as age, gender, education, type of residence and ethnicity) have also been extensively investigated (e.g., Alesina and La Ferrara 2002; Freitag and Traunmüller 2009; Hooghe et al. 2009; Kumlin and Rothstein 2005; Leigh 2006; Mewes 2014; Simpson 2006; Helliwell and Wang 2010; Algan and Cahuc 2013; Bodor et al. 2018). In addition, generalized trust is one of the most popular proxies in social capital research (see: Knack and Keefer 1997; Paxton 1999; Putnam 2000; Sturgis and Smith 2010; Füzér et al. 2020) and is also frequently used as an indicator in well-being research (Alsop et al. 2006; OECD 2011; Helliwell et al. 2016).

At the same time, there is increasing criticism in the literature about the form the conventional surveying of trust measurement takes. Some of this criticism disputes whether self-reports of trust examined by questionnaire methods have any connection to individuals' behavior manifested in real-life situations and interactions (Glaeser et al. 2000; Naef and Schupp 2009; Uslaner 2012). Other opinions are somewhat critical of methodological details. For instance, studies have debated the appropriate number of items to be used to capture generalized trust and whether a 'trust index' or the single-item measurement of the standard question is more adequate (Bauer and Freitag 2018; Brehm and Rahn 1997; Zmerli and Newton 2008). Another methodologically motivated discourse revolves around the appropriate length of scales (Lundmark et al. 2015; Uslaner 2012). The more complex problems of interpersonal incomparability and measurement inequivalence are not independent from the issues mentioned above. Here, the dilemma arises as to whether respondents are interpreting the question(s) in the same way. In other words, any difference revealed between two respondents should be carefully examined to determine whether it really is a discrepancy in their level of trust, or this is a flawed conclusion as the question(s) put to them are interpreted differently by the interviewees (André 2013; Davidov 2009; Delhey et al. 2011; Freitag and Bauer 2013; Reeskens and Hooghe 2008; Miller and Mitamura 2003; Poznyak et al. 2014; Torpe and Lolle 2011; Uslaner 2002; Robbins 2022; Sturgis and Smith 2010; Van der Veld and Saris 2011).

2. Trust towards Unknown Others and Relatedness to Others' Otherness

Revising both the concept and the survey tools and techniques of trust towards unknown others is an often recurring topic in the field of trust research (Bauer 2021; Frederiksen 2018; Fukuyama 1995; Hardin 2002, 2006; Reeskens 2013; Robbins 2022). Various trust-related domains and dimensions are addressed in the literature with the goal of better explaining the conceptual background and based on that, clarifying the empirical framing. So far, there is just one revision that aims to comprehensively reconsider the whole idea of trust. Sztompka (1999) suggested in his monograph that conceptualizing trust has to be a multilayered attempt with special attention to the very complex structural–agent, macro–micro, emotional–cognitive, and ideational–praxes-like circular interplays. Although Sztompka agreed with the basic statement that trust is an individual emotion, he also considered it a social mood, a kind of gradually emerging social atmosphere, a slowly unfolding structural-institutional environment. He talked about the 'culture of trust or distrust'. Due to this perspective, Sztompka suggested that trust needs to be addressed in a broad sense.

Another source for our problematization was Christian Welzel's (2010) work, which said that trust should be considered according to one's radius of relations. Based on Fukuyama's interpretation, Welzel elaborated a survey tool that measured trust along the so-called trust radiuses, from the most-inner radius of family members and close friends to the largest radius of people in general. Welzel also used special indicators to measure trust towards people surely different from the given respondent, like people from another country, religious group, nationality, or ethnic group. By these latter survey items, he wanted to make it clear that 'people in general' really means others, i.e., different from the interviewees.

Building on these ideas, we propose that trust towards unknown others can be better framed, both theoretically and empirically, if we focus not only on one's perception of others' trustworthiness but also on this given agent's relatedness to others' otherness. According to its conceptual criterion, trust towards unknown others strives to comprehend how individual agents consider the trustworthiness of people in general. Although 'people' as such is an ill-defined notion, it is not so abstract that it cannot be described by a simple term. People are others without any kind of differentiation among them. There is just one common characteristic of people in general, and that is their otherness. So, talking about trust towards unknown others cannot be limited to the aspects of trust-related affective components or individual perceptions of others' trustworthiness. These are important focus points, but not the only relevant ones. Individual agents' relation to others' otherness is just as much informative as trust towards unknown others as the previously mentioned components. Before elaborating a bit more on this linkage, our argument simply claims that trusting people in general means being open to others' otherness.

In this proposed linkage, we do not aim to invoke concepts like tolerance, solidarity, recognition, respect, acceptance, inclusion, etc. Otherness, or more precisely, one's relatedness to others' otherness, is important for our argument just to be able to concretize the notion of people in general. This is a crucial criterion for the better understanding of trust towards unknown others, since if somebody perceives most people to be trustworthy, but at the same time rejects (i.e., 'distantiate' herself/himself from) others' certain form of otherness, then her/his trust is not towards others as such, but to a much smaller group of people characterized by some kind of sameness with the respondent. Accordingly, including one's relation to others' otherness in our theoretical thinking about trust towards unknown others is useful in order to better understand what trust actually is.

It is precisely the problem that lies at the center of our study. Namely, whether the relationship between trust measured by the standard variable (i.e., perception of others' trustworthiness) corresponds with our theoretical expectation about individual relatedness towards others' otherness. The research objective we have set for ourselves is inspired by an interest that is partially similar to that guiding the critical investigations in connection with trust measurement presented in the introduction. Among these critical studies, Helliwell and Putnam (2004) concluded that trust measured by the standard variable is rather community-related, reflecting one's direct social environment. Li and Liang (2002) also stressed that, in the case of China, in-group trust very much influences one's perception of unknown others' trustworthiness. They claimed that this is why China is often falsely identified as a high-trust society in international surveys. Sturgis and Smith (2010) used a 'think out loud' self-report item in their survey aimed to explore the level of trust in the UK. Immediately after answering the standard trust question, all respondents were asked to report, in their own words, who came to mind when formulating their response. The results showed that a substantial number of respondents reported having thought about people who were known to them. Following on this path, Delhey et al. (2011) addressed the radius problem—that is, how wide a circle of other respondents imagines as 'most people'—in their study. Obtaining data from the World Values Survey, the authors suggested that the standard variable predominantly connotes trust towards outgroups. To this extent, they concluded that it is a valid measure of general trust in others. Nevertheless, results showed that the radius of 'most people' varies considerably across countries, and because of that,

some country rankings on trust dramatically changed when the standard question was replaced by a radius-adjusted trust score.

Accordingly, the above-mentioned studies reached important conclusions regarding the validity of the main variable of trust measurement. For the problematization of the current paper, these conclusions are crucial contributions. However, another pool of literature should also be considered in relation to our proposed framing focused on the linkage between trust towards unknown others and relatedness to others' otherness. These latter studies address whether ethnic diversity, i.e., exposure to a certain form of otherness, increases or, on the contrary, decreases trust in unknown others. Alesina and La Ferrara (2002), Costa and Kahn (2003), Delhey and Newton (2005), Dinesen and Sønderskov (2015), Dinesen et al. (2020), Gundelach and Traunmüller (2013), Kumove (2020), Putnam (2007), Stolle et al. (2008), as well as Uslaner (2010) found that there is a negative interrelationship between ethnic diversity and trust towards unknown others. More recently, in debate with this general finding, Kumove (2023) stressed that ethnically diverse social contexts rather decrease one's out-group trust but not her/his generalized trust. Of course, the problem with this conclusion is that one's generalized trust in an ethnically diverse social environment may reflect on the respondent's in-group trust, as demonstrated by the studies discussed in the previous paragraph. However, this literature proves that relatedness to others' otherness is an important aspect to be considered in order to better understand one's trust in 'most people'.

3. Data and Methods

In the following part of the study, we will now perform an empirical investigation of the issue discussed above, for which we use the database of the European Social Survey (ESS). Since 2002, the ESS has provided a broad view of the political and public policy preferences of European societies as well as of the values and attitudes characteristically valid of the given collective every two years.[1] The ESS survey has included the standard variable of generalized trust (Appendix A, Table A1) from the very beginning, where interviewees give responses on an 11-point scale (from 0 to 10). The question is asked as follows:

> *Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please tell me on a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted.*

The advantage of the ESS is that it contains additional variables as permanent questions that may be interpreted as items reflecting on one's relatedness to others' otherness, thus allowing us to examine the proposed linkage on a large-scale representative dataset. In this study, we focus on one item that is in connection with the otherness of immigrants from poorer, non-European countries, while the other one is related to homosexuality. We intentionally selected items that (a) reflect on exact forms of otherness and (b) can be considered relevant in every European society. The precise wording of the identified variables appearing in the questionnaire is as follows:

> *To what extent do you think [respondent's country] should allow people from the poorer countries outside Europe to come and live here? (The responses: 1: Allow many to come and live here; 2: Allow some; 3: Allow a few; 4: Al-low none)*

> *Please say to what extent you agree or disagree with each of the following statements: Gay men and lesbians should be free to live their own life as they wish. (The responses: 1: Agree strongly; 2: Agree; 3: Neither agree nor disagree; 4: Disagree; 5: Disagree strongly)*

For the analyses, we use the data of those countries that participated in the last two (either in one or both of them) rounds of ESS (2018, 2020), allowing us to provide results for 31 nations (namely Austria, Belgium, Bulgaria, Cyprus, Czechia, Denmark, Estonia, Greece, Croatia, Iceland, Italy, Lithuania, Latvia, Montenegro, North Macedonia, Serbia, Slovakia, Finland, France, Germany, Hungary, Ireland, the Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom). For all examinations,

country-specific samples are weighted according to the guidelines of the ESS (ESS 2022), and in the case of countries that participated in both rounds, we created a pooled sample.

Apart from the descriptive assessment of the macro-level connection, we employ multivariate models to examine the country-specific micro-level association between generalized trust and relatedness to others' otherness in 31 nations. In these models, the two dependent variables reflect the above-described forms of otherness. As regards the item measure, respondents' perceptions of immigration from poorer, non-European countries are mainly divided between 'allow none' and the other options, so the variable was dichotomized to reflect on whether a person would allow none or at least a few to come and live in her/his country. The other variable, which measures the relatedness to gay and lesbian people, was similarly dichotomized in order to separate those respondents who 'disagree strongly', 'disagree' or 'neither agree or disagree' from those who 'agree' or 'strongly agree'. For control variables, a range of indicators were selected; among them, items refer to demographic attributes, socioeconomic position, political attitudes and life satisfaction, as individual perceptions of immigration and the freedom of gay and lesbian people can be associated with a multitude of factors other than social trust (Bernát and Simonovits 2016; Messing and Ságvári 2021; Takács and Szalma 2019). The applied control variables in our models include age (measured in years), gender (male or female), and the highest level of education (low, medium or high)[2], self-reported political alignment[3] (where 0 indicates left and 10 indicates right) as a scale, trust in the country's legal system (0 indicating no trust at all and 10 indicating complete trust) as a scale[4] and subjective life satisfaction[5] on a 0 (extremely dissatisfied) to 10 (extremely satisfied) scale. After the omission of those who did not provide valid answers to all of the selected variables, the final analytical sample consists of 80,128 respondents (unweighted). Descriptive statistics per country sample are available in Appendix A, Table A2.

Respective to the applied statistical methods, the effect of generalized trust in the presence of controls on the two dichotomous dependent variables was estimated by using binary logistic regressions (see Hosmer et al. 2013 for a detailed explanation of the general model specification) fitted to the country-specific samples, resulting in a total of 62 models (all models with fit statistics available in the online supplement, including the detailed effect of all variables, the McKelvey and Zavoina's and Cragg and Uhler's pseudo-R-squared statistics, and the AUC statistic from the ROC curves). Specifically, a logistic model is defined as:

$$\ln\left[\frac{\pi(x)}{1-\pi(x)}\right] = \beta_0 + \beta_1 x_1 + \ldots + \beta_k x_k \quad (1)$$

where $\pi(x)$ is the conditional probability of the outcome given independent variable(s) x, β_0 is the intercept, and β is the effect of the independent variables included in the model. We opted for this strategy instead of using multi-level models for two reasons. First, the number of countries in our sample is fairly low while the number of observations per country is high, while more groups (countries in our case) with a lower number of respondents are ideal for multilevel models (Snijders and Bosker 1999). Second, as recent studies have shown, the estimates of multilevel logistic models for group-level variables can be considerably biased if the number of groups (countries) is low (Bryan and Stephen 2016; Ali et al. 2019). As our aim is to highlight country-specific differences in the effect of generalized trust on the dependent variables, we present average marginal effects (AME) from the binary logistic regression models. The AME allows us to compare effects across country-specific models as it is an unbiased measure in the presence of unobserved heterogeneity (see Mood 2010 for a discussion on the issue).

4. The Empirical Relationship between Trust and Relatedness to Others' Otherness

4.1. The Macro-Perspective

Starting with the descriptive assessment of the link between trust and relatedness to others' otherness, Figure 1 shows the mean of the standard trust question per country. As it is evident, the values display significant differences between the various societies of

Europe, with a minimum of 3.4 (Poland) and a maximum of 7.0 (Denmark). Generally, the lowest level of trust is measured in Central Eastern European countries (Poland, Serbia, Bulgaria, North Macedonia and Montenegro) and some of the Mediterranean countries (Cyprus and Portugal). On the other end, the highest level of trust is presented in the Scandinavian countries (Denmark, Finland, Norway, Iceland and Sweden), followed by the Netherlands and Switzerland.

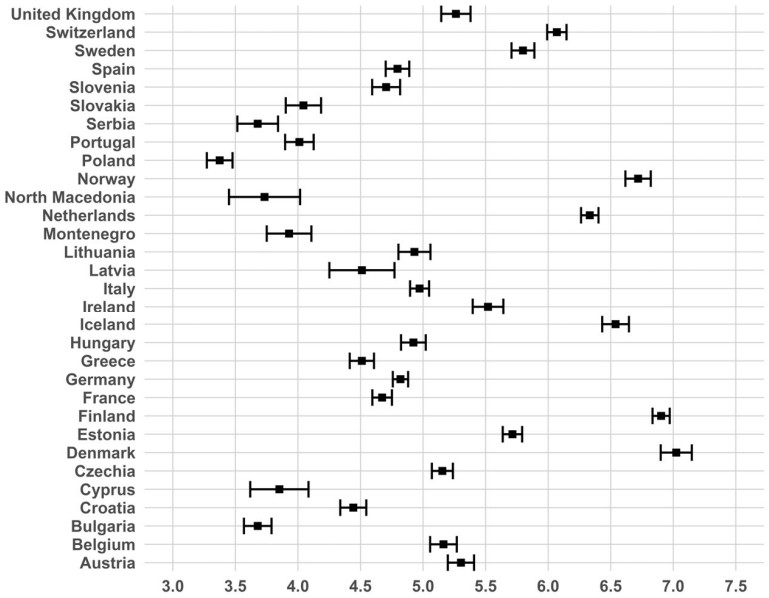

Figure 1. Mean of the standard generalized trust question. Source: European Social Survey wave 9 and 10 (2018–2020), respondents aged 18–85. Bars indicate the 95% confidence intervals of the means.

Looking at the variables about otherness, Figure 2 presents the percentage of individuals who would allow at least a few migrants and those who agree that gays and lesbians should be free to live as they wish. Again, variability between the examined societies is apparent, ranging between 53.3% (Hungary) and 98.4% (Iceland) for migration and 24.2% (North Macedonia) and 97.2% (Iceland) for the acceptance of gays and lesbians. Regarding migration, the most accepting societies (with near or more than 95% of respondents agreeing) are the Scandinavian ones (Iceland, Norway, Sweden and Finland), followed by certain Southern (Portugal and Spain) and Western European (Switzerland and Germany) nations. On the other hand, countries with the lowest (around 70% or lower) acceptance are from Central Eastern Europe (Hungary, North Macedonia, Czechia, Bulgaria and Slovakia), followed by Greece.

Patterns in attitudes toward gays and lesbians are easier to interpret. Societies of all Northern and Western European countries are explicitly open to this form of otherness (Portugal also belongs to this group), and these societies, according to this dimension, are clearly distinct from the rest of Europe. Some of the Mediterranean and Central Eastern European countries are quite close to the level of social acceptance measured in the Western and Northern countries (e.g., Slovenia, Italy, Greece), while others are lagging far behind (e.g., North Macedonia, Montenegro, Lithuania, Serbia, Slovakia, Hungary, Bulgaria).

In the next step in our descriptive macro-level assessment, Figure 3 presents the relationship between generalized trust and relatedness to others' otherness. Our clear expectation, derived from the concept of trust, is that a high level of generalized trust entails openness to otherness and vice versa. However, our results do not clearly support this expectation. The presumed relationship is more valid for the variable related to homosexuality. In this case, countries with a low level of trust are less open to this form of otherness compared to trusting societies. However, some remarkable exceptions can be noted: in some of the Central Eastern European societies, for instance, in Hungary and Lithuania, but also in the Czech Republic and Estonia, a relatively high level of generalized

trust is associated with a low level of openness to homosexuality, while in Portugal the situation is exactly the opposite. Turning to the other variable, the relationship between trust and immigration from poorer, non-European countries, the only thing we can state with certainty is that trusting societies are open to the otherness of migrants. However, there is noteworthy heterogeneity among countries with low and medium levels of trust: some societies from this pool can be considered quite open towards migrants' otherness, while other nations are not. All in all, the macro-level relationship between trust and relatedness to others' otherness is not as robust in an empirical sense as it was expected based on the theoretical linkage.

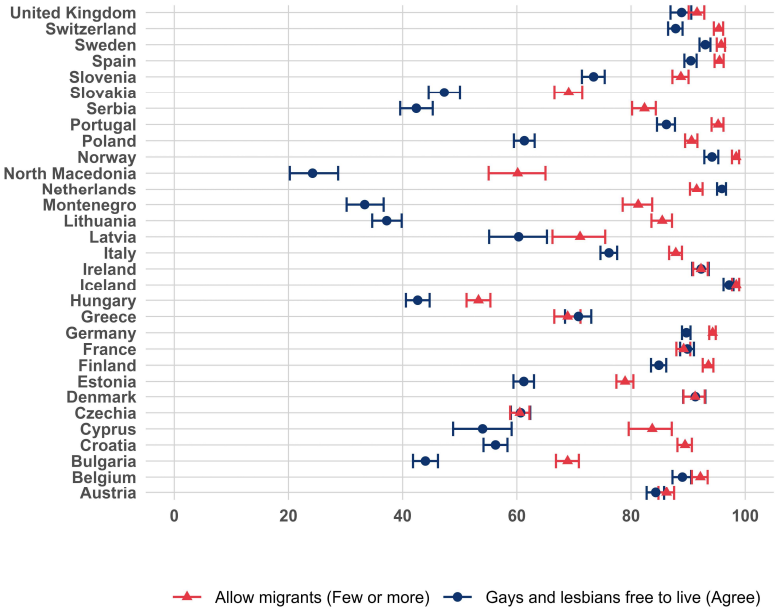

Figure 2. Opinions about migration and the acceptance of gays and lesbians, percentages. Source: European Social Survey wave 9 and 10 (2018–2020), respondents aged 18–85. Bars indicate the 95% confidence intervals of the percentages.

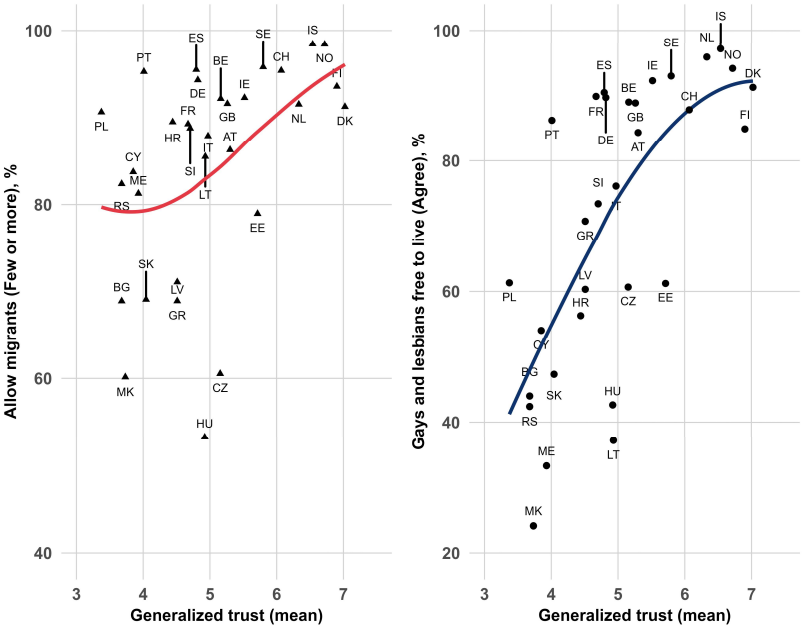

Figure 3. Macro-level association between mean generalized trust and relatedness to otherness. Source: European Social Survey wave 9 and 10 (2018–2020), respondents aged 18–85. Line indicates a smoothed loess line.

4.2. The Micro Perspective

The second objective of our study is to explore the relationship between trust and relatedness towards others' otherness at an individual level using country-specific models. Our theoretical expectation is that generalized trust is associated with a higher probability of expressing openness towards the otherness of migrants from poorer, non-European countries, as well as gays and lesbians. All models are available in the online supplement.

Figure 4 shows the average marginal effect of generalized trust on allowing at least a few migrants from poorer countries outside Europe to come and live in the given country. Out of the 31 nations, generalized trust had a statistically significant ($p < 0.05$) and positive effect in around half (16) of the nations. In these 16 countries, the effect of generalized trust differs considerably. At the upper end, in Hungary, a 1 scale point increase in generalized trust is related to a +4.2% probability of allowing migrants to come to the country, while in Sweden at the lower end, the positive effect is much weaker, +0.48%. Greece (+3.04% per scale point) and Czechia (+2.45% per scale point) had similarly strong effects on Hungary, while five other countries (the United Kingdom, Germany, Austria, Ireland and Spain) had an AME weaker than +1%, just as Sweden.

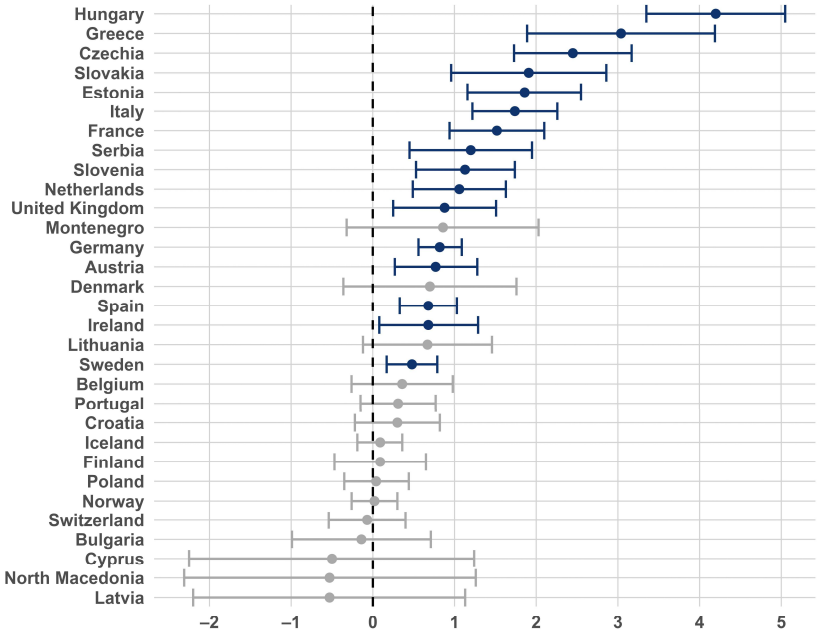

Figure 4. Average marginal effect of generalized trust on the opinions about migration (allowing at least a few to come and live in the country), percentages. Source: European Social Survey wave 9 and 10 (2018–2020), respondents aged 18–85. Dashes indicate zero effect. Grey values indicate that the effect is not significant ($p > 0.05$).

Turning towards the other dependent variable, Figure 5 shows the average marginal effect of generalized trust on the relatedness of gays and lesbians. Compared to migration, generalized trust exhibited a significant ($p < 0.05$) positive effect only in 12 out of the 31 countries when controlling for other factors. The strongest effect was observed in the case of Estonia (+1.68% per scale point), while the weakest was observed in Iceland (+0.36% per scale point). Apart from Estonia, only five others (Serbia, Belgium, Finland, Slovenia and the United Kingdom) had an AME above +1%.

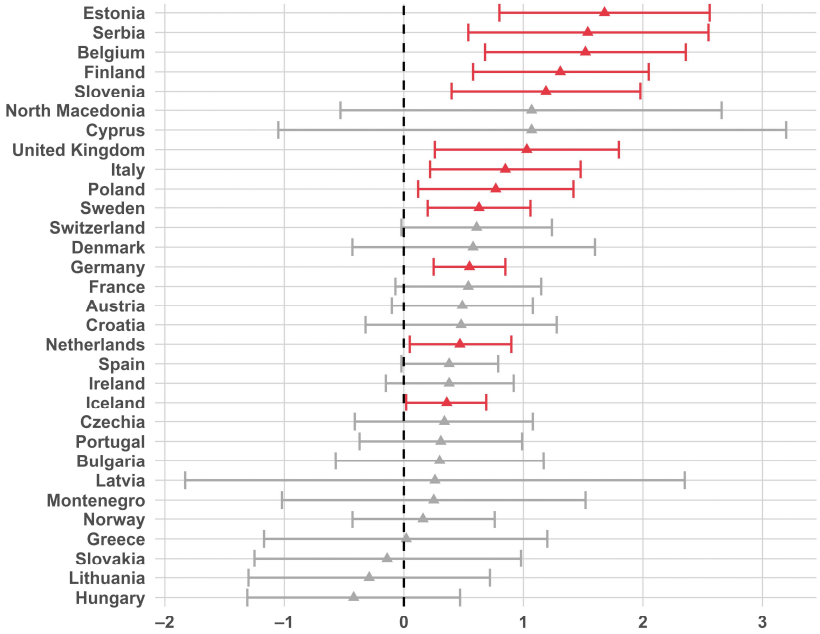

Figure 5. Average marginal effect of generalized trust on agreeing that gays and lesbians are free to live as they wish, percentages. Source: European Social Survey wave 9 and 10 (2018–2020), respondents aged 18–85. Dashes indicate zero effect. Grey values indicate that the effect is not significant ($p > 0.05$).

All in all, based on the micro-level models with controls, our main conclusion is that the relationship between trust and relatedness towards others' otherness on the individual level is not as solid and stable as it should be. Also, it needs to be noted that it is hard to point out any kind of pattern, and country-specific constellations explored during the macro-level analysis are not helpful either to interpret micro-level specificities. Even in the case of countries where high social trust is strongly associated with openness towards the otherness of migrants, as well as gays and lesbians, the micro-effect is significant only in certain examples. The same confusing microtrend can be observed in the case of distrusting societies too.

During the micro-level modeling process, we explored whether there is any kind of interaction between generalized trust and the selected control variables (age, gender, education, political alignment, trust in the legal system, life satisfaction) or if trust has a quadratic effect. While we failed to confirm the presence of interaction, our results (available in the online supplement) indicate that in 7 countries, generalized trust has a negative quadratic effect on our migration-related dependent variable. This indicates that trust has a weakening association with allowing at least a few migrants from poorer countries outside Europe to come and live in the given country.

Figure 6 presents this diminishing effect of generalized trust. For example, in Italy, a 1 scale point increase in trust from the lowest possible trust value (0) has an AME of +7.17%, while higher trust levels and further increases (for example, from 9 to the maximum of 10) have an AME of only +1.07%, a much weaker effect. Similarly, in Montenegro, moving upwards from a zero trust yields a substantial positive effect (+7.47%), while at higher levels (at a 9 generalized trust, for example, only an AME of +1.53%), this is not the case.

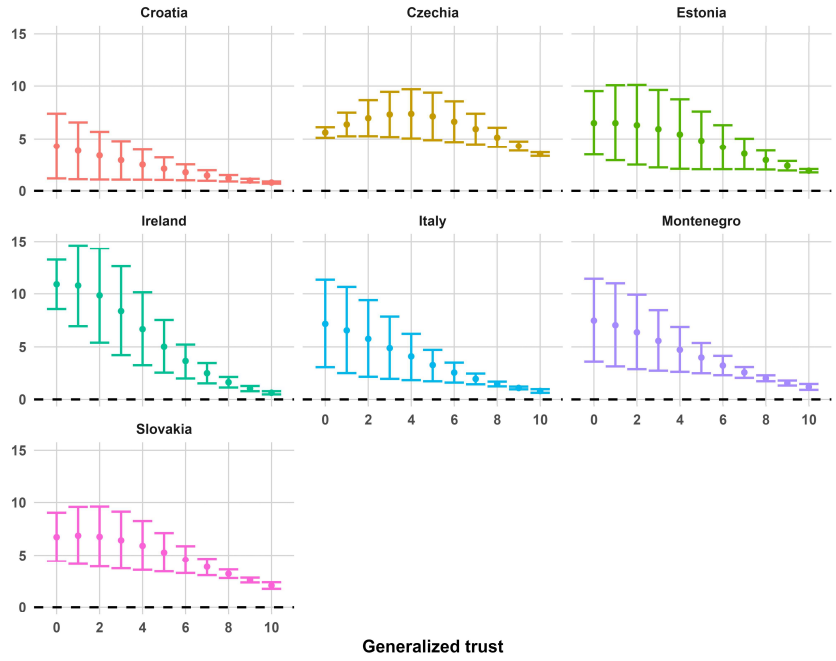

Figure 6. Diminishing average marginal effect of generalized trust on the opinions about migration (allowing at least a few to come and live in the country) based on models with negative quadratic trust effect. Source: European Social Survey wave 9 and 10 (2018–2020), respondents aged 18–85. Dashes indicate zero effect. All effects are statistically significant ($p < 0.05$).

5. Discussion and Conclusions

Trust towards unknown others, i.e., how the self relates herself/himself to other people and affectively how this relatedness impulses the self, is a fundamental issue of trust research. Moreover, this problematization can be seen as the generative source of the whole scientific framing of trust. Of course, since the basic socio-psychological concepts emerged in the late 1950s and early 1960s, numerous new, much more interdisciplinary perspectives, approaches and reinterpretations have enriched the research agenda of trust. Yet theorizations on 'generalized trust', both the commonly cited main ideas and their critical revisions, are still important reference points to better understand the psychological dynamics, intersubjective and situational conditions, as well as the structural-institutional constellations of trust as an individual emotion and social mood. Beside the continuous conceptual constructions, deconstructions and reconstructions of trust, there are similarly dedicated attempts to empirically address, identify and measure trust in a more refined way. Although there are commonly used tools for this objective, especially in the field of survey methods, However, these questionnaire items, among them the standard trust question, the trust index and the trust radiuses, are often criticized.

The current paper aimed to contribute to this academic debate, yet not only from a statistical-methodological point of view. Trust towards unknown others is a crucial social phenomenon that needs to be better explored and explained beyond questionnaire technical refinements. Of course, scholarly discourses about what is the correct wording of a question, what should be the right order of the items, which is the best scale to apply, etc. are not negligible. However, it should not be forgotten that adequate empirical (re-) frameworks presume coherent theoretical backgrounds. In light of that, based on Sztompka's and Welzel's inspirational suggestions, in this paper we strive to propose an extended conceptual reading of 'generalized trust'. We slightly moved the focus from the usual research questions like the affective components of trust and perceiving/justifying others' trustworthiness and problematized the target of trust towards unknown others that cannot be else than people in general. We did not undertake the task to somehow define the notion of 'people' better. Instead, we concentrated on one simple criterion, namely that people are very diverse; some are similar, while others are rather dissimilar. However, from

the conceptual perspective of trust towards unknown others, it is absolutely clear that one's trust has to be generalized without differentiation between others' sameness and otherness. To claim that one trusts people in general, it has to mean a certain form of openness towards others' otherness. If this basic expectation is ignored, then we blur the difference between trust and limited trust or even distrust. Against the standard trust variable, which is often applied in surveys as a reliable tool to measure trust towards people in general, this is the main criticism, namely that it does not define clear criteria about the aspect of how to interpret people as such. In this paper, we wanted to reflect on this problem.

By examining the linkage between trust and relatedness towards others' otherness, we did not aim to better explain the impacts or outcomes of trust; instead, we strived to find out what trust really is. From among the many possible forms of otherness in this paper, we focused on two exact ones that are relevant in every European social context. Through macro- and microanalyses of the relationship between trust and relatedness towards the otherness of migrants from poorer, non-European countries, as well as gays and lesbians, we aimed to shed light on the reliability of the standard trust variable. Using data obtained from the last two rounds of the European Social Survey, our 31-country-based comparative statistical examination showed that the presumed connection between trust and relatedness towards others' otherness cannot be clearly proven. This means that the empirical framing of generalized trust needs to be refined, and the approach we proposed suggests that further variables of otherness should be considered in order to develop a multi-layered survey tool for a more adequate and accurate measurement of trust.

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Appendix A

Table A1. Descriptive statistics of the generalized trust variable.

Country	Mean	Standard Deviation	Skewness	Kurtosis	N (Unweighted)
AT	5.30	2.48	−0.50	−0.35	3769
BE	5.16	2.10	−0.26	−0.41	1580
BG	3.68	2.49	−0.43	0.34	3289
CH	6.07	1.99	0.09	−0.60	2572
CY	3.85	2.33	−0.57	0.15	526
CZ	5.15	2.41	−0.54	−0.40	4095
DE	4.82	2.59	−0.67	−0.17	9085
DK	7.02	1.83	0.61	−0.85	1372
EE	5.71	2.10	0.19	−0.54	2940
ES	4.80	2.58	−0.55	−0.26	3182
FI	6.90	1.80	1.27	−1.08	2980
FR	4.67	2.07	−0.14	−0.36	3298
GB	5.26	2.21	−0.19	−0.50	1812
GR	4.51	1.95	−0.31	0.12	2310
HR	4.44	2.53	−0.49	−0.07	2760

Table A1. *Cont.*

Country	Mean	Standard Deviation	Skewness	Kurtosis	N (Unweighted)
HU	4.92	2.39	−0.61	−0.29	2665
IE	5.52	2.28	−0.36	−0.48	1778
IS	6.54	2.01	1.04	−0.96	1521
IT	4.97	2.22	−0.33	−0.39	3604
LT	4.93	2.50	−0.52	−0.18	2261
LV	4.51	2.54	−0.55	−0.26	541
ME	3.93	2.61	−0.56	0.16	1508
MK	3.73	2.75	−0.84	0.23	792
NL	6.33	1.78	0.81	−0.94	2740
NO	6.72	1.91	0.35	−0.74	2499
PL	3.37	2.75	−0.78	0.40	2825
PT	4.01	2.41	−0.68	0.01	2177
RS	3.68	2.85	−0.77	0.28	2277
SE	5.80	2.47	−0.34	−0.57	3398
SI	4.70	2.49	−0.64	−0.22	1970
SK	4.04	2.60	−0.73	0.20	2002

Source: European Social Survey, wave 9 and 10 (2018 and 2020).

Table A2. Descriptive statistics of the sample.

Country	Age	Gender		Education			Political Alignment	Trust in Legal System	Life Satisfaction	People Coming from Non-European. Poorer Countries		Gays and Lesbians Free to Live as They Wish	
		Male	Female	Low	Medium	High				Allow None	Allow at Least a Few	Does Not Agree	Agree
AT	49.21 (17.36)	49.5	50.5	16.7	56.7	26.6	4.57 (2.05)	6.49 (2.48)	7.74 (2.00)	13.8	86.2	15.7	84.3
BE	48.00 (17.70)	49.7	50.3	25.9	37.4	36.7	4.96 (1.99)	5.33 (2.28)	7.48 (1.67)	7.9	92.1	11.0	89.0
BG	51.04 (17.33)	49.5	50.5	18.4	54.9	26.7	5.60 (2.43)	2.98 (2.48)	5.85 (2.39)	31.1	68.9	56.0	44.0
CH	48.29 (17.70)	50.2	49.8	15.9	59.3	24.8	5.06 (2.04)	6.90 (1.98)	8.22 (1.58)	4.6	95.4	12.2	87.8
CY	47.85 (16.82)	51.6	48.4	22.8	45.3	31.9	5.44 (2.57)	4.48 (2.49)	7.09 (2.01)	16.3	83.7	46.1	53.9
CZ	48.81 (17.71)	49.5	50.5	11.0	69.9	19.1	5.64 (2.08)	5.45 (2.57)	7.10 (1.82)	39.5	60.5	39.3	60.7
DE	49.43 (18.05)	50.7	49.3	14.9	64.6	20.5	4.39 (2.05)	6.06 (2.55)	7.13 (2.29)	5.7	94.3	10.3	89.7
DK	48.46 (17.62)	50.5	49.5	22.2	50.2	27.6	5.04 (2.30)	7.56 (2.02)	8.45 (1.53)	8.8	91.2	8.7	91.3
EE	48.63 (16.82)	46.8	53.2	11.4	52.5	36.1	5.45 (1.89)	6.17 (2.42)	7.26 (1.87)	21.0	79.0	38.8	61.2
ES	48.48 (18.40)	49.5	50.5	43.0	26.7	30.2	4.17 (2.67)	4.52 (2.82)	6.93 (2.26)	4.5	95.5	9.5	90.5
FI	50.22 (17.78)	49.0	51.0	18.5	51.0	30.5	5.59 (2.19)	7.29 (2.02)	8.06 (1.51)	6.5	93.5	15.1	84.9
FR	49.16 (17.35)	48.2	51.8	22.9	54.9	22.2	4.93 (2.24)	5.22 (2.46)	6.73 (2.23)	10.8	89.2	10.1	89.9
GB	47.70 (16.65)	51.4	48.6	22.7	43.7	33.6	4.83 (1.91)	5.84 (2.43)	7.29 (2.05)	8.5	91.5	11.2	88.8
GR	49.57 (17.77)	50.4	49.6	30.8	42.5	26.7	5.23 (1.92)	6.50 (2.24)	6.37 (1.72)	31.1	68.9	29.2	70.8
HR	49.15 (17.54)	48.6	51.4	21.2	62.3	16.5	4.99 (2.55)	2.74 (2.36)	7.17 (2.33)	10.6	89.4	43.7	56.3
HU	49.50 (17.16)	48.0	52.0	18.6	60.6	20.7	5.64 (2.50)	5.64 (2.45)	6.54 (2.18)	46.7	53.3	57.4	42.6
IE	46.98 (17.27)	50.0	50.0	21.6	47.0	31.4	4.93 (1.81)	5.30 (2.46)	7.20 (1.91)	7.7	92.3	7.7	92.3

Table A2. *Cont.*

Country	Age	Gender		Education			Political Alignment	Trust in Legal System	Life Satisfaction	People Coming from Non-European. Poorer Countries		Gays and Lesbians Free to Live as They Wish	
		Male	Female	Low	Medium	High				Allow None	Allow at Least a Few	Does Not Agree	Agree
IS	45.29 (16.85)	52.6	47.4	25.7	41.3	33.0	4.92 (2.23)	6.03 (2.19)	8.03 (1.63)	1.5	98.5	2.8	97.2
IT	50.52 (17.50)	49.5	50.5	42.3	42.5	15.3	5.18 (2.35)	5.36 (2.33)	6.97 (1.93)	12.2	87.8	23.9	76.1
LT	49.30 (15.02)	45.8	54.2	9.6	59.0	31.4	5.15 (2.46)	5.00 (2.50)	6.63 (2.24)	14.5	85.5	62.8	37.2
LV	48.88 (14.49)	49.2	50.8	10.9	61.4	27.7	5.85 (2.15)	4.66 (2.63)	6.81 (2.09)	28.9	71.1	39.7	60.3
ME	45.51 (15.02)	52.6	47.4	17.6	53.8	28.7	4.07 (3.07)	4.41 (2.90)	7.19 (2.15)	18.8	81.2	66.6	33.4
MK	43.99 (14.49)	55.5	44.5	17.8	59.0	23.2	5.45 (2.87)	2.96 (2.70)	6.28 (2.55)	39.9	60.1	75.8	24.2
NL	48.31 (17.87)	50.4	49.6	27.0	42.8	30.2	5.16 (2.01)	6.62 (1.94)	7.89 (1.39)	8.5	91.5	4.1	95.9
NO	47.96 (17.63)	51.0	49.0	15.7	48.7	35.6	5.01 (2.40)	7.47 (1.92)	7.87 (1.67)	1.6	98.4	5.8	94.2
PL	48.87 (17.86)	49.8	50.2	29.6	40.6	29.9	5.59 (2.75)	3.65 (2.50)	6.60 (2.31)	9.4	90.6	38.7	61.3
PT	49.77 (17.29)	47.6	52.4	49.6	27.2	23.2	4.93 (2.16)	4.15 (2.48)	6.88 (2.09)	4.8	95.2	13.8	86.2
RS	46.80 (16.35)	49.1	50.9	14.6	61.3	24.1	4.58 (2.67)	3.68 (2.96)	5.79 (2.74)	17.6	82.4	57.6	42.4
SE	46.94 (17.94)	51.6	48.4	16.3	51.7	32.0	5.16 (2.50)	6.07 (2.45)	7.54 (1.87)	4.2	95.8	7.0	93.0
SI	49.85 (17.32)	50.9	49.1	13.6	61.4	25.1	4.85 (2.40)	4.23 (2.48)	7.51 (1.90)	11.3	88.7	26.6	73.4
SK	47.61 (17.21)	49.4	50.6	11.1	66.5	22.4	5.18 (2.50)	4.23 (2.75)	6.40 (2.18)	30.9	69.1	52.7	47.3

Source: European Social Survey wave 9 and 10 (2018 and 2020). Parentheses indicate the standard deviations of the continuous variables. Due to rounding, percentages might not add up to 100%.

Notes

1 For more information see: http://www.europeansocialsurvey.org/ (accessed on 20 July 2023).

2 In the ESS, highest level of completed education is measured according to ISCED (International Standard Classification of Education) categories. We collapsed the variable to reflect those with low (at most completed primary education), medium (any type of secondary but not tertiary education) or high (at least a BA diploma) educational attainment.

3 In politics people sometimes talk of "left" and "right". Using this card, where would you place yourself on this scale, where 0 means the left and 10 means the right?

4 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. How much do you trust the legal system?

5 All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 means extremely dissatisfied and 10 means extremely satisfied.

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