University of Groningen

Unknown is unloved? Diversity and inter-population trust in Europe

Gerritsen, D.; Lubbers, M.

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Link to publication in University of Groningen/UMCG research database

Unknown is unloved? Diversity and inter-population trust in Europe

Debby Gerritsen and Marcel Lubbers

Additional services and information for *European Union Politics* can be found at:

Email Alerts: http://eup.sagepub.com/cgi/alerts

Subscriptions: http://eup.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

Citations: http://eup.sagepub.com/content/11/2/267.refs.html

>> Version of Record - Jun 4, 2010

What is This?

Unknown is unloved? Diversity and inter-population trust in Europe

Debby Gerritsen and Marcel Lubbers
Utrecht University, The Netherlands

Abstract
With more than 400,000 trust evaluations, we examine inter-population trust in the European Union. We focus on social capital theory explanations in a context where European inhabitants from 20 countries rate trust in the populations of 27 other European countries and in their own national population. We emphasize the role of ethnic heterogeneity, but we extend the research by studying the importance of the presence of specific European migrants in a country for trusting this population as a whole. Moreover, we consider the relation with the citizen's country and characteristics of the trusted populations' country. We use the European Election Studies, showing that diversity is important for explaining trust in other populations and trust in one's own population – but opposite to what is expected by Putnam.

Keywords
cross-national comparison, ethnic diversity, European Union, social capital, trust

Introduction

In the discussion on the influence of ethnic heterogeneity on levels of generalized trust, researchers have come to inconclusive results. In the US context, Putnam (2007) shows that trust levels declined in neighbourhoods with greater heterogeneity. Heterogeneity affects not only trust in other groups – out-groups – but, interestingly, also trust in members of the in-group. Putnam concludes that diversity reduces social solidarity and social capital in general and triggers social isolation. Delhey and Newton (2005) corroborated the same hypothesis for predicting cross-national levels of generalized trust: higher levels of fractionalization were associated with lower levels of trust. In other European cross-national studies,

Corresponding author:
Debby Gerritsen, PhD, Department of Interdisciplinary Social Sciences, Utrecht University, PO Box 80140, 3508 TC Utrecht, The Netherlands.
Email: D.Gerritsen1@uu.nl

however, the findings do not support the social capital thesis that ethnic diversity decreases levels of generalized trust (Gesthuizen et al., 2009; Hooghe et al., 2009). It is in line with Putnam that, at the country level, ethnic diversity increases unfavourable attitudes towards out-groups (Kunovich, 2004; Quillian, 1995) and leads to a larger share of extreme right-wing voters (Arzheimer and Carter, 2006; Lubbers et al., 2002; Norris, 2005). Yet it does not affect outcomes that are central to social capital theory – trusting others in general, meeting neighbours, friends or colleagues, and helping others (Gesthuizen et al., 2009; Hooghe et al., 2009). Moreover, at the local level, researchers did not find effects of ethnic diversity. Tolsma et al. (2009) even found the effect of ethnic diversity on some measuers of social cohesion to be opposite to Putnam's findings. Wagner et al. (2006) found in the German context that a larger share of migrants increases inter-ethnic contacts, and in turn decreases negative evaluations of others.

We contribute to the debate on trust and its relation to ethnic diversity by expanding general trust in non-specified 'others' to intra-Europe inter-population trust. We aim to find out to what extent people have trust in 27 other populations and in their own national population. The cross-national studies of Gesthuizen et al. (2009), Hooghe et al. (2009) and Delhey and Newton (2005) did not distinguish which population is trusted and analysed generalized trust. With our approach, we assess the extent to which contextual characteristics as well as the characteristics of the other population affect trust.

Scholars have argued that mutual trust between European populations is essential for a stable European institution (Deutsch et al., 1957; Follesdal, 2004; Handley, 1981). Attitudes and feelings of trust towards other nations are crucial to establishing the readiness of citizens in the European Union (EU) to cooperate in political affairs and to feel solidarity with other citizens across national frontiers (Dekker et al., 1997). In the literature on EU integration, inter-population trust has received little attention; the focus has been on (the influence of) trust in the national government, in the EU parliament and in other EU institutions (Christin and Trechsel, 2002; Franklin et al., 1995; Lubbers, 2008; Mishler and Rose, 1997; Rohrschneider, 2002). Consequently, the characteristics of other countries are seldom included when evaluating integration. An exception is the study by Christin and Trechsel (2002), in which the image of Switzerland's neighbouring countries was considered in order to explain resistance to EU membership. In the more specific literature on European enlargement, the accession issue is related to our questions on inter-population trust. Jones and Van der Bijl (2004) studied propositions on how one country (the 15 EU member states of 2002) is expected to view another (the EU candidate countries of 2002). Delhey (2005, 2007a) is one of the exceptions, focusing extensively on inter-population trust. We follow his research and develop it in four ways. First, we pay particular attention to various ethnic diversity measures that have become central to studies on interpersonal trust and that in previous studies on inter-population trust received less emphasis. Second, we employ multi-level analyses, in which individual trust evaluations on a set of countries are nested within respondents who are nested in countries.

Third, because we focus on more recent data, the East European countries included in our data set were, at the time of data collection, EU members as well – which is of importance, because political arrangements between countries turned out to affect levels of trust (Delhey, 2007a); we incorporated East Europeans as trust-givers. In Delhey's study, only three East European populations were included as trust-givers (Slovakia, Czech Republic and Poland). Fourth, we study trust not only in various other populations, but also in one's own population. In doing so, we follow Putnam's (2007) constrict theory that diversity reduces not only trust in perceived out-groups but social capital and social solidarity in general.

We question to what extent European citizens from 20 EU countries have trust in 27 other country populations, including the population of EU candidate country Turkey. Moreover, we ask to what extent inter-population trust and trust in one's own population are affected by (various measures of) ethnic diversity. To answer these questions we will take into account individual and contextual level characteristics as well as the characteristics of the trusted population – the so-called target population characteristics, previously studied by Jones and Van der Bijl (2004) and Delhey (2007a).

Theories and hypotheses

Social capital is mostly measured in terms of social networks and the associated reciprocity and trustworthiness (Putnam, 2007). Interpersonal trust is one of the core elements of Putnam's social capital theory (1992). Recently Pichler and Wallace (2007) acknowledged two different kinds of social capital, formal and informal. Formal social capital is associated with involvement in structured civic institutions, such as volunteering and engaging in charity. Informal social capital is formulated as the social ties individuals have with other people. This study focuses on informal social capital in a European context. The extent to which people put trust in specific other European populations is expected to be dependent on the characteristics of the country the trust-giver lives in, as well as on the characteristics of the country of the trusted population, next to individual-level characteristics. From previous research we know that political and economic conditions in the trusting and the trusted country are relevant (Delhey, 2005, 2007a). In this contribution we focus on the relation between diversity and trust in specific EU populations.

Ethnic diversity and trust in other populations

From social capital theory, the general trust that people have in others depends – next to levels of modernization – on compositional factors. When there are more co-ethnics residing in a country, the population is expected to reach higher levels of cohesion, which increases the level of trust. The proposition in this theory is that people are more likely to feel at ease with people of their own group, and that greater diversity enlarges distances between people, resulting in feelings of

discomfort (Gesthuizen et al., 2009) and isolation (Putnam, 2007). Researchers deduced the hypothesis that ethnic heterogeneity decreases levels of trust. In Putnam's study, ethnic heterogeneity is measured using the Herfindahl index, a measurement of ethnic fractionalization. The Herfindahl index is equal to 0 if the ethnic composition of the surrounding community is composed of a single ethnic group and equal to 1 if all ethnic groups are equally represented. Putnam (2007) found that, at the local level, ethnic diversity did indeed decrease trust in others, as well as trust in one's own group. Tolsma et al. (2009) came to the opposite conclusion: ethnic diversity increases contacts with neighbours and tolerance of out-group neighbours.

For our study, the international focus of Gesthuizen and colleagues (2009) is of interest. They show that more fractionalization does not decrease social trust and, as a result, not informal and formal social capital. Gesthuizen et al. used a measure from Alesina et al. (2003), who provide Herfindahl–Hirschmann indices measuring ethnic fractionalization for 190 countries. Following the initial ideas from Putnam's social capital approach, we expect that greater fractionalization reduces the level of trust in the population of other European countries:

H1: Ethnic fractionalization hypothesis.

The level of fractionalization and the presence of migrants in a country are often highly correlated at the country level. Conceptually, fractionalization is different from the percentage of immigrants in an area. In the situation where many groups are represented equally, the level of fractionalization is at its maximum. The presence of migrants reflects the experience of the native inhabitants and is at its maximum when all others in the surrounding area have a migrant background. Although this is highly unlikely at the country level, it is relevant to distinguish the measures. Therefore, we also hypothesize that a larger percentage of migrants in a country reduces the level of trust in the populations of other European countries:

H2: Ethnic concentration hypothesis.

The social capital hypothesis on ethnic concentration is similar to the dominance hypothesis in conflict research (Collier, 2001; Esteban and Schneider, 2008). When there is a group dominant in size, conflict is expected to be less likely to occur. The level of dominance of the native group is the reversed function of the presence of migrants. In this research tradition, often a dichotomy is created; for example, Collier (2001) expected less conflict in societies where the dominant group contains between 45 percent and 90 percent of the population.

In conflict research, another theoretical distinction has been made, that between fractionalization and polarization (Esteban and Schneider, 2008). Polarization refers to the extent to which 'the population is clustered around a small number of distant poles' (Esteban and Schneider, 2008: 133). With a larger number of

groups, fractionalization in a society increases, whereas polarization then decreases. Moreover, polarization includes the information of inter-group differences, usually not accounted for by fractionalization (Schneider and Wiesehomeier, 2008). The theoretical proposition is that conflict in a given society is at its maximum level when it arises out of two groups that are equal in size (Esteban and Ray, 1999; Esteban and Schneider, 2008). Following this research, we expect that increasing levels of polarization reduce the level of trust in the populations of other European countries:

H3: Ethnic polarization hypothesis.

An important note here is that a society can be polarized on a multitude of facets. Ethnic polarization is just one of the divisions in a society with which groups can be aligned.

From previous research on generalized trust evaluations, it is found that economic inequality is one of the strongest predictors (Rothstein and Uslaner, 2005). Delhey and Newton (2005) too found that, in countries with higher levels of income inequality, people have less trust in other people. Income inequality was also included in the studies by Putnam (2007), Gesthuizen et al. (2009) and Van Oorschot and Arts (2005), who all provided evidence of a negative relationship with trust. We formulate a hypothesis in line with their finding that income inequality is negatively related to social trust:

H4: Income inequality hypothesis.

Trust in one's own population

Putnam (2007) finds evidence for what he labelled 'constrict theory'. This approach implies that various facets of ethnic diversity influence not only bridging capital (ties to people who are unlike us in some important way) but also bonding capital (ties to people who are like us in some important way) in a negative way. The possible isolation that people experience in more diverse settings would result in more distance not only from members perceived to be out-groups but also from perceived in-group members. Putnam was the first to test this hypothesis in the US context. We will test this hypothesis in the European context. We expect that ethnic diversity will decrease trust in other populations and also in one's own population:

H5: Constrict hypothesis.

To test this hypothesis we will perform a separate analysis and include the same individual and contextual variables we expect to influence trust in other EU populations.

Out-group diversification

The literature discussed evaluates trust in others and in one's own group (Putnam, 2007). The 'others' are evaluated as a uniform out-group, but previous research has shown that distinctions are made between different out-groups (Delhey, 2007a; Jones and Van der Bijl, 2004; Linssen and Hagendoorn, 1994). These distinctions are, among other factors, influenced by the characteristics of the out-group (Delhey, 2005, 2007a). Even when the likelihood of distrusting a group is higher when one distrusts an arbitrary other group, we can expect that trust in some populations is greater than in others. To follow this reasoning on ethnic heterogeneity in the country in which the trust-giver lives, we expect trust to be dependent on the presence of immigrants from the population to be trusted. From social capital theory there is no clear expectation that a larger group of, say, Poles would induce higher or lower levels of trust in Poles in particular. This theory states only that a large group of Poles would induce distrust in general. From ethnic competition theory – also discussed by Gesthuizen and colleagues (2009) – we would expect that a larger proportion of immigrants from a specific population would induce a greater perception of economic or cultural threat from that population, resulting in negative reactions to this group, including lower levels of trust in this population:

> **H6:** Ethnic competition hypothesis.

However, in a German study and based on EU15 interrelations, Delhey (2007b) found that the ethnic competition hypothesis was not supported in explaining inter-population trust in 1997.

Cultural differences and trust

One of the premises of Putnam's thesis is that greater heterogeneity increases distrust. Therefore, factors denoting differences between groups should evoke negative reactions and lead to less trust. Delhey (2007a) expected and found evidence that populations from nations more similar to or less distant from the respondent's own country are more likely to be trusted. This argumentation is based on Rokeach's (1960) social-psychological belief congruence theory, which states that there is 'a natural tendency for people to associate with, socialize with and be more comfortable with others having similar belief systems' (Rokeach et al., 1960: 161; Delhey and Newton, 2005). Delhey (2005, 2007a) found that the cultural aspects of language and religion are relevant for evaluations of inter-population trust. We follow this reasoning to derive the seventh hypothesis: individuals have more trust in populations of EU countries that are culturally more similar to their own country:

> **H7:** Cultural distance hypothesis.

Concerning religious similarities, we expect populations of countries with the same dominant religion as the country in which the trust-giver lives to be more likely to be trusted. As to language, we expect that when the language spoken in a target country is close to the dominant language of the country of the respondent, the population of the target country is more likely to be trusted. Greater cultural heterogeneity or diversity in the EU will decrease mutual levels of trust.

Although, in Delhey's (2007a) study, spatial distance did not explain levels of trust towards other nationalities, others have found that geographical distance has an effect on attitudes towards other nations (e.g. Jones and Van der Bijl, 2004; Linssen and Hagendoorn, 1994). Linssen and Hagendoorn (1994) showed that geographical factors influence the stereotypes of national populations: the further a country is away from the respondent's own country, the less positive is the content of the stereotype of the other nation. Stereotypes and trust are two different concepts, but both are dimensions of out-group evaluations. Therefore, we consider these findings to be applicable for examining trust as well. It is likely that populations in countries further away from one's own country are less likely to be trusted because less is known about these countries and cultural differences are expected to be larger:

H8: Geographical distance hypothesis.

One of the premises of the belief congruence approach as applied by Delhey (2005, 2007a) is that more remote and more different populations are less likely to be trusted because people know less about these populations. This expectation is also derived from contact theory (Allport, 1954; Pettigrew and Tropp, 2006). Here, the opposite of ethnic competition theory is expected: it proposes that the increased presence of a group results in increased contact opportunities. Contact would reduce stereotypes and increase levels of trust. We expect that the more people in a society are unfamiliar with a country('s population), the more likely people are to distrust that population:

H9a: 'Unknown is not trusted' hypothesis.

Moreover, we expect that the cultural distance and geographical distance effects on specific populations are mediated by the relative unfamiliarity with the population:

H9b: Mediation hypothesis.

Data and measurements

To test our hypotheses, we used the European Election Study of 2004 (EES 2004). The EES 2004 included questions mirroring the academic debate on the

possibilities of a legitimate and democratic European policy. The data address three dimensions of democratic legitimacy: identity, representation and performance. The part of EES 2004 used for this study was the identity dimension. European citizens have to trust each other before they experience a sense of belonging to one and the same European community and experience one European identity (EES, 2004). For this reason, a question on trust between populations of the EU was included. Such a question had previously been included in the Eurobarometer. However, the trust question has not been included in the Eurobarometer since 1997. The EES surveys were conducted in 25 countries, including East European countries; the two newest members of the EU, Romania and Bulgaria, were not yet included. The total number of participants included in EES 2004 was 28,861. The EES is a sample of voters eligible for the European elections. Consequently, extra-EU migrants were excluded from the sample. The question on trust in other European populations was asked in 20 countries. The trust question was not included in the surveys for Belgium, Great Britain, Lithuania, Malta and Sweden. In Estonia, the trust question for the own population was not included. The gender division for the whole study was 52 percent male and 48 percent female. The average age of the respondents was 47.5 years.

Dependent variable

The dependent variable is trust in European Union or candidate populations. The question asked was: 'Now I would like to ask you a question about how much trust you have in people from various countries. Can you please tell me for each, whether you have a lot of trust in them or not very much trust. If you do not know a country well enough, just say so and I will go on to the next.' The listed populations in the questionnaire are Austrians, Belgians, British, Bulgarians, Cypriots, Czechs, Danes, Dutch, Estonians, Finns, French, Germans, Greek, Hungarians, Irish, Italians, Latvians, Lithuanians, Luxembourgers, Maltese, Poles, Portuguese, Romanians, Slovaks, Slovenes, Spaniards, Swedes and Turks. The answer categories for the dependent variable are 'yes', having trust (1), or 'no', not having trust (0). Respondents who said that they did not know the population or did not know whether they trusted the population or not were excluded from the analyses. However, we used this information to test our hypothesis on familiarity with a population.

Measurements of ethnic diversity

We used three measurements of ethnic diversity that are commonly employed in international research but are rarely compared: first, fractionalization; second, ethnic concentration; and, third, ethnic polarization.

We used the measurement of fractionalization as provided by Fearon (2003) and as used by, for example, Schneider and Wiesehomeier (2008). The measurement is highly comparable with that of Alesina et al. (2003) as used by Gesthuizen et al. (2009);

the correlation between the measures is .90. Ethnic fractionalization is measured differently from Putnam (2007) but similarly to Gesthuizen et al. (2009), at the country level. The country with the highest fractionalization index is Spain, at 0.50, which means it has the most heterogeneous population in our data set. The most homogeneous population is the Portuguese, with an index of 0.04. The Herfindahl–Hirschmann index measures whether two people who meet randomly in the street are from different ethnic groups.

The second measurement of ethnic diversity is the percentage of foreigners in a country and refers to ethnic concentration; it differentiates between native and foreign populations (Eurostat, 2008a). Measured in percentages, the highest proportion of foreigners live in Luxembourg (39.0%) and the lowest in Slovakia (0.6%).

The measurement of ethnic polarization captures the extent to which larger groups polarize societies. Whereas fractionalization indices increase with more groups of relevant size in society, the polarization index is at its maximum (1) when two ethnic groups in society are of equal size. We used the data on ethnic groups constructed by Fearon (2003) and applied the formula of ethnic polarization as given by Schneider and Wiesehomeier (2008) and Reynal-Querol (2002). In these contributions, both ethnic fractionalization and ethnic polarization were included simultaneously in the analyses. Alesina et al. (2003) even argue that the ethnic polarization index works best when it is highly correlated with ethnic fractionalization (Schneider and Wiesehomeier, 2008). However, in the European context of this research article, the measures correlate very strongly (.96). We therefore will control for multicollinearity problems and, if these were present, model the effects of fractionalization only.

Income inequality

The Gini coefficient is a measure of income inequality. In this study we included the Gini coefficient for every country in the study. It is lowest in Denmark (0.24) and highest in Turkey (0.45) (Statistics Iceland, 2008).

Diversification of groups

To test the ethnic competition hypothesis we used a more detailed measurement of the percentage of foreigners. Ethnic competition is defined as the percentage of a specific other EU or candidate nationality group present in the respondent's country (EuroStat, 2008a). We used the numbers from 2004. For example, in Luxembourg there is a large Portuguese community (9%), and a considerable group of people born in France (4%). A large group of British nationals live in Ireland (6%).

Cultural distance

Religion and language were included in our study as indicators of cultural distance. Less cultural distance is expected between countries with similar dominant religions

and similar languages. Countries are recognized as having the same religion when they share the same dominant religion (CIA, 2008). When a country has two dominant religions, as in for example Hungary (Roman Catholic and Protestant), this country is connected to all other countries that are Catholic, Protestant or both. In the data set, a country combination gets a 1 if the countries have the same dominant religion and a 0 if they do not.

When a country's language belongs to the same linguistic family as that spoken in the other country, these countries are recognized as sharing the same kind of language. The language families included in this study are German, Roman, Baltic, Hellenic, Slavic, Turkish, Uralic and Celtic (European Commission on Multilingualism, 2008). If in two countries the same kind of language is spoken, the combination of these two countries gets a 1 in the data and a 0 otherwise.

Geographical distance

The geographical distance between countries was calculated for this study as the distance in kilometres between the capital cities for each country combination. The largest distance was between Nicosia (Cyprus) and Lisbon (Portugal); the shortest between Bratislava (Slovakia) and Vienna (Austria). Since it is possible that two countries are neighbouring countries but their capitals are at a great distance, we also included a measurement of whether two countries are neighbouring countries. When two countries are neighbouring countries, the combination gets a 1 in the data and a 0 if they are not.

Population unfamiliarity

As mentioned in the description of the dependent variable, we used the 'do not know' answers to operationalize familiarity with a population. For some populations, a large percentage of respondents indicated not knowing whether they trusted a population. We see this as an indication of unfamiliarity with a population. The percentage of respondents who did not know whether or not to trust a population ranged from 1 percent of Cypriots evaluating Greeks to 60 percent of Italians rating Lithuanians.

Control characteristics

Previous research on trust has convincingly shown the importance of national wealth characteristics of a country and of the trusted country such as democracy and political stability (Delhey, 2005, 2007a; Fukuyama, 1995; Paxton, 2002; Putnam, 1992). For economic prestige we included a country's gross domestic product (GDP) per capita (EuroStat, 2008b), which is by far the highest for Luxembourg (59,900), followed by Ireland (36,600) and Denmark (36,500), and the lowest in Bulgaria (2600), Romania (2800) and Turkey (3400) (EuroStat, 2008b). As for political prestige (Delhey, 2007a), we followed the work of

Herreros and Criado (2008), who recommend the use of the Public Institutions Index, which includes measures of 'independence of judiciary, the protection of property rights, neutrality of the government in assigning public contracts, the pervasiveness of organized crime and the pervasiveness of bribes in economic exchange and tax payments' (Herreros and Criado, 2008: 61). The higher the score, the better the public institutional arrangements. The index is highest in Denmark and lowest in Poland.

Between its foundation in 1951 and 2007 the EU expanded from 6 to 27 member states. Delhey (2007a) provided evidence that long-term political relations between countries increase trust between those populations. Therefore, we included the number of shared years of EC/EU membership, as measured in 2004, in our model.

The individual-level control variables are age, gender and education. Education was included in the questionnaire as the age when the respondent stopped full-time education, assuming that people with a higher educational level finish their studies later.

Analysis

Every respondent evaluated all EU (candidate) countries' populations, and these evaluations are expected to be affected by both his or her own country's characteristics and the characteristics of the target population. To account for this complicated data structure, we analysed the data with binary logistic regression multi-level analyses within the program *Mlwin*, in which we standardized all ordinal and continuous independent variables. Responses were nested within individuals, who were nested in countries. We performed two sets of analyses. First, we estimated the effects of target, country and individual characteristics on trust in other populations (three-level model). Second, we estimated the effects of country and individual characteristics on trust in their own population (two-level model).

Results

Trust in other populations

First, we describe the trust different populations have in each other. The average trust among all respondents in other populations is 59 percent. Comparing the levels of trust shown to the various countries (Table 1), we see that most Scandinavian and North European countries are at the top, which is comparable to findings in studies in the 1990s based on Eurobarometer data (Delhey, 2007a). The Spanish and Portuguese are also among the 10 most trusted populations. Larger country populations such as Germany and France are somewhat above average; Great Britain is listed in 17th place. At the bottom of the list are generally the East European countries and Turkey. Poles show the least trust on average in other populations (40%). The Slovenians have the most trust on average in other populations (75%). Trust in the respondent's own country's population is overall

Table 1. Percentage of all respondents having trust in, or being unfamiliar with, the respective country's population and the percentage of the country's population having trust in their own population and in all other populations (mean scores, ranked by percentages trusted by others)

Population	Percentage trusted by other populations	Percentage of population with trust in own population	Percentage of population with trust in other populations	Percentage unfamiliar among all populations
Swedes	81	N/A	N/A	18
Danes	77	97	66	21
Dutch	76	92	59	20
Finns	75	97	67	24
Luxembourgers	71	99	71	27
Belgians	71	N/A	N/A	23
Spaniards	71	94	66	19
Irish	69	83	56	23
Portuguese	68	79	43	24
Austrians	67	100	61	21
Germans	67	90	67	14
French	67	89	63	17
Greek	62	86	51	24
Italians	60	71	52	17
Maltese	59	N/A	N/A	35
Czechs	57	88	71	25
British	56	N/A	N/A	17
Hungarians	55	85	59	27
Latvians	53	77	46	34
Estonians	52	N/A	63	31
Polish	51	73	40	22
Lithuanians	51	N/A	N/A	32
Slovaks	48	83	43	28
Cypriots	46	95	43	36
Slovenians	46	95	75	31
Bulgarians	34	N/A	N/A	30
Romanians	30	N/A	N/A	27
Turks	24	N/A	N/A	24
Total	59	89	69	24

Notes: N/A = not available; the particular population did not answer questions on trust or was not included in the survey.

higher than trust in other populations. The Austrians have the most trust in their own population, with all respondents indicating that they trust their own population (100%), and the Italians have the least trust (71%).

Interestingly, the Danes, Germans, Italians and Dutch have slightly more trust in the Swedish population than in their own population. Italians also have more trust in the Danes, Finns, Luxembourgers, Spaniards and the Dutch than in their own population. The Dutch have more trust in the Danes and Luxembourgers than in their own population. Germans also trust the Danes better than their own people and the Czechs have more trust in the Finns than in their own population. Respondents from Denmark have the most trust in another population, which is the Swedish (98%). The Greek Cypriots have the least trust in another population, the Turks (4%) – for historical reasons. The table also presents the percentages of respondents who did not know (whether or not to trust) the population; we used this as a measure of unfamiliarity with the population. Respondents are most familiar with the Germans, scoring 14 percent on this unfamiliarity measure; respondents are least familiar with the Cypriots (36%).

In Table 2 we present the estimated parameters of the multi-level modelling of trust in other populations. The first model is the intercept model, providing evidence that variance components at both the country and the individual level are highly significant. Because of the binomial nature of the modelling, the level 1 variance (intra-individual differences between target populations) is fixed at 1. There is much more variance between individuals than between countries, which is almost always the case in social science research. However, the country differences are clearly significant.

In the first model, only the bivariate relations between the ethnic diversity measures and the outcome variable (trust) are given. These are actually four different models; therefore no variance parameters are given in this model. Both ethnic fractionalization and ethnic polarization are positively related to trust in other European populations, but the associations are not significant. Nor is the effect of ethnic concentration. Only the presence of a specific group in the country significantly affects trust in that group; the larger a specific group in a country, the more likely it is that the population receives a positive evaluation – in contrast to our ethnic competition hypothesis. There are, however, many factors we need to control for, at both the individual and the contextual level, and these are included in the second model.

The findings from model 2 show that people have more trust in other populations when their own country's population is more fractionalized. We come to the same conclusion when using the measure of ethnic polarization, which in the European context could not be included together with fractionalization because of problems of multicollinearity. For having trust in other populations, we have to reject the fractionalization and polarization hypotheses as formulated on the basis of Putnam's work. The effects of fractionalization or polarization are in the opposite direction to that expected. Inspecting the magnitude of the effect, we find that in this model the intercept is equal to .261. This equates to a probability of 56 percent

Table 2. Multi-level logistic regression parameters (logits) explaining inter-population trust

	Model 0		Model 1 Bivariate relations		Model 2		Model 3	
	b	SE	b	SE	b	SE	b	SE
Own country characteristics								
Ethnic fractionalization			0.16	0.12	0.40***	0.15	0.35**	0.16
Ethnic polarization[a]			0.15	0.12				
Percentage of foreigners			−0.04	0.14	−0.27	0.19	−0.22	0.21
Income inequality					−0.24**	0.11	−0.18	0.12
GDP					0.09	0.18	0.04	0.20
Public Institutions Index					0.11	0.12	0.11	0.13
Target population characteristics								
GDP					0.34***	0.01	0.28***	0.01
Public Institutions Index					0.40***	0.01	0.39***	0.01
Relational characteristics								
Percentage of target group living in country of trust-giver			0.06***	0.01	−0.01	0.01	−0.04***	0.01
Same language family					0.46***	0.01	0.37***	0.01
Same dominant religion					0.43***	0.01	0.41***	0.01
Geographical distance					−0.03***	0.01	0.01*	0.01
Neighbouring country					0.02	0.02	−0.08***	0.02
Shared no. of years of EU membership					0.06***	0.01	0.01	0.01
Unfamiliarity with population							−0.29***	0.01
Individual characteristics								
Age					−0.08***	0.01	−0.08***	0.01
Education					0.25***	0.02	0.24***	0.02
Men					0.11***	0.03	0.12***	0.03
Intercept	0.57				0.26		0.26	
Ω_k country level	0.37***	0.12			0.14***	0.05	0.17***	0.06
Ω_j individual level	2.97***	0.04			3.05***	0.04	2.74***	0.03
Ω_i target level	1				1		1	
ρ_l (residual intra-class correlation)	0.50				0.49		0.47	

Notes: $N = 429,510$ trust evaluations; SE, standard error.
[a]In a model estimating effects from both fractionalization and polarization – as proposed in conflict literature by, for example, Alesina et al. (2003), Schneider and Wiesehomeier (2008) and Reynal-Querol (2002) – estimated standard errors inflate, indicating multicollinearity. Therefore, only fractionalization is included as a predictor, giving the same results as when polarization measures are included.
***$p < .001$; **$p < .01$; *$p < .05$.

trusting another population. With the fractionalization index at its lowest score and all other predictors being equal (at their average standardized value of 0, or the value of 0 for the dummy variables), the probability of trusting another population is 44 percent, whereas at the highest level of fractionalization the trust probability is estimated at 74 percent. We have to refute the ethnic concentration hypothesis as well, because the concentration of ethnic migrants in a country has no significant influence. Finally, the ethnic competition hypothesis was refuted. A larger share of a specific out-group does not result in lower levels of trust, as was predicted, but it is not related to trust in this multiple logistic regression model.

The other fractionalization hypothesis we formulated concerned income inequality. Here we do find the expected relation: a larger Gini coefficient – indicating greater inequality – is associated with a population less likely to trust other populations. At the highest income inequality, trust rates are predicted to be 44 percent; at the lowest income inequality, trust in other populations is 63 percent.

The cultural and geographical distance hypotheses are also supported by our results, confirming the previous findings of Delhey (2007a). In model 2, we note that the sharing of language and religion increases the levels of inter-population trust. When language and religion are not shared, with everything else being constant, the probability of trusting another population is equal to the intercept probability of 56 percent. When countries share their language, the probability of trusting the other country's population increases to 67 percent. When religion is also shared, inter-population trust increases further to 76 percent. We also find evidence to support the hypothesis that countries at a greater distance are trusted less. In comparison with the other discussed effects, its size is rather small. At the shortest distance, trust is estimated to be 58 percent, whereas at the greatest distance, trust decreases to 54 percent. Neighbouring countries do not attract more trust. Moreover, shared EU membership increases reciprocal trust as well.

We also included the control variables in the second model. Most of them turned out to be related to trust, as found in previous research, although some predictors were insignificant. Of the country characteristics, GDP and the Public Institutions Index do not significantly contribute in explaining levels of trust. The same characteristics of the target population do turn out to affect the levels of trust in a foreign population. As formulated by Delhey (2007a), both the economic and the political prestige of a country increase the levels of trust in the populations of these countries. When countries have both a low GDP and a low Public Institutions Index – everything else being constant – trust in their population is estimated to be 27 percent. At the highest GDP and Public Institutions Index, trust is estimated to be as high as 87 percent.

Individual-level characteristics influence trust in other populations as well, and are in line with findings from previous research. Age and education have a significant effect on trust in other populations. The older people are, the less trust they have in other populations; and, the higher the education, the more trust people have. It is argued that people with higher education have a more tolerant and universal view of cultures and cultural differences (Pinxten, 2002). Our result with respect to educational level leads to the same conclusion. The more highly educated are estimated to

trust other populations in 70 percent of the evaluations. Those with lower education are predicted to have trust in 43 percent of the evaluations, all other predictors being equal. Lastly, men have a higher level of trust in populations from other countries, but the differences between the genders are limited to 3 percentage points.

With the findings presented in model 3 we evaluate the hypothesis that unfamiliarity with a population decreases trust and we assess whether this unfamiliarity mediates the effects of cultural and geographical distance. There is a strong effect of unfamiliarity with a population. The less fellow citizens are familiar with a specific population, the lower the levels of trust respondents have in that population. This finding supports our hypothesis. Moreover, we see that the effect of cultural distance diminishes when the unfamiliarity measurement is included in the model. The effect of language distance decreases from .46 to .37. The effect of religious distance, however, remains unchanged. The effects of geographical distance even reverse. Given the relative familiarity with populations nearby, we could have expected those populations to be trusted more. Consequently, we find now – given familiarity with a population – that populations at a short geographical distance and neighbouring countries are less trusted. Moreover, the effect of shared EU membership is interpreted as familiarity with the population. Based on these findings the mediation hypothesis is supported. Also, the positive effects of fractionalization and the percentage of the specific target population in the country are partly mediated by levels of unfamiliarity. The higher the fractionalization, the lower the levels of unfamiliarity with other populations and, consequently, the higher the levels of trust. A comparable interpretation goes for the presence of specific target populations. The higher their relative numbers, the more likely the populations are known; which makes them less prone to be distrusted. Given their familiarity, however, we see that the effect of the presence of specific out-groups is negative and in accordance with our hypothesis. So, when controlled for familiarity, a larger presence of an out-group induces higher levels of distrust, which we interpreted in terms of a perceived threat.

Trust in respondents' own population

In Table 3, we present the results of the analyses to explain trust in respondents' own population. First, we again estimated the null model, presenting the variance of trust among countries. The level 2 variance estimation is highly significant, implying that countries vary in the extent to which their populations trust themselves. The intra-class correlation shows 33 percent of the variance being accounted for by the country level. In the first model, the bivariate relations between ethnic diversity measures and levels of trust are given. The effects are, however, too small to reach significance. Both ethnic fractionalization and polarization are positively associated with levels of trust, as is ethnic concentration. We find no evidence for Putnam's (2007) hypothesis that people have less trust in their own ethnic group when they live in a more ethnically diverse context. The only country characteristic that influences trust in their own population is income inequality. Diversity in

Table 3. Multilevel logistic regression parameters (logits) predicting trust in their own population

	Model 0		Model 1 Bivariate relations		Model 2	
	b	SE	b	SE	b	SE
Own country characteristics						
Ethnic fractionalization			0.25	0.29	−0.05	0.32
Ethnic polarization[a]			0.21	0.28		
Percentage of foreigners			0.52	0.33	0.51	0.44
Income inequality					−0.54**	0.24
GDP					0.02	0.44
Public Institutions Index					0.31	0.32
Individual characteristics						
Age					0.00	0.03
Education					−0.00	0.03
Men					0.00	0.05
Intercept	2.47				2.56	
Ω_j Country level	1.61***	0.54			0.64***	0.22
Ω_i Individual level	1				1	
ρ_1 (residual intra-class correlation)	0.33				0.16	

Notes: $N = 18,534$ respondents evaluating their own population; SE, standard error.
[a]In a model estimating effects from both fractionalization and polarization – as proposed in conflict literature by, for example, Alesina et al. (2003), Schneider and Wiesehomeier (2008) and Reynal-Querol (2002) – estimated standard errors inflate, indicating multicollinearity. Therefore, only fractionalization is included as a predictor, giving the same results as when polarization measures are included.
***$p < .001$; **$p < .01$; *$p < .05$.

terms of income inequality in a country shows a significant negative effect on trust in their own group. GDP and the Public Institutions Index again go in the expected direction, but do not reach significance.

Regarding the effects of individual characteristics, none has an effect on trusting their own population comparable to the effect on trusting other populations. Even with such a large data set, none of the predictors turned out to be significant. The strong positive effect of education on trusting other populations is absent when it comes to trusting one's own population.

Conclusion and discussion

Our findings are contrary to Putnam's hypothesis on the effects of diversity on social trust. Foreign populations, as well as one's own population, are unlikely to be distrusted when people live in a more ethnically diverse country. We come to

this conclusion independently of the use of a measurement of ethnic diversity, by using a measurement of either fractionalization, polarization or ethnic concentration. We even found that, in ethnically more fractionalized or polarized European societies, populations trust other European populations more. Moreover, Europeans do not have less trust in other European populations when their presence is larger in the country of the trust-giver. We do, however, find negative effects of diversity. More cultural diversity within the EU decreases levels of trust. According to our results, cultural distance between two populations affects mutual trust between those populations. People are more likely to trust populations with similar languages and the same religion. The adage 'unknown is unloved' is supported by our findings. We show that the negative effects of language distance and geographical distance and the positive effects of fractionalization are partly mediated by the level of familiarity with a particular population. We tentatively conclude that initially low levels of trust are overcome when people become more familiarized with other populations and they get accustomed to living together in the European countries. This result is in line with contact theory (Allport, 1954; Pettigrew and Tropp, 2006): people have more positive attitudes towards other groups when there is more contact directly or indirectly with the other group. These findings also agree with the conclusions of Jones and Van der Bijl (2004) in explaining attitudes to the EU accession of specific countries. Thus, intra-EU migration seems to be a stimulus for higher levels of trust among EU populations. Controlling for the level of familiarity, there is, however, a negative effect of the presence of specific out-groups, which we interpret as the ethnic competition effect. Delhey (2007b) also found that the initially positive relationship between share of a specific out-group and trust turned negative under the control of other characteristics – although these effects did not reach significance.

Next to the importance of ethnic diversity and cultural differences between populations, we find that the political and economic prestige (Delhey, 2007a) of the country in which people put their trust are relevant. Populations from countries with more favourable public institutional arrangements, as well as those from richer countries, are trusted more.

Trust in their own population reaches very high levels in the European countries, with a maximum of 100 percent among the Austrians. Cross-national differences in trust in their own population are explained only by the level of income inequality. This predictor turned out to be the only significant one in explaining both trust in other populations and trust in their own population. Greater income inequality in the country of the trust-giver decreases trust, which is in line with our expectation that greater heterogeneity decreases the level of trust. The replication of this effect in the present and in previous research (Gesthuizen et al., 2009; Putnam, 2007; Van Oorschot and Arts, 2005) shows that economic inequalities might be stronger predictors of trust than ethnic diversity.

An interesting finding at the individual level is that the effect of educational attainment on trusting other populations was different from the effect on trusting one's own population. The higher the education, the greater the trust in foreign

populations, but education turned out not to increase the level of trust in one's own population.

In the literature on the effects of ethnic diversity on all kinds of outcomes, ethnic fractionalization, ethnic polarization and ethnic concentration are distinguished. For the European context, we found that ethnic fractionalization and polarization are so strongly correlated that they cannot be included in models without causing multicollinearity. Polarization and fractionalization are, however, yet to be disentangled from ethnic concentration – both theoretically and empirically. We showed that ethnic concentration had less impact on trust evaluations than fractionalization or polarization. We have to keep in mind though that, without a European standard on migrants and ethnic groups, this kind of research needs to be replicated to corroborate the empirical findings.

We finally stress that, with more than 400,000 judgements of trust from respondents in 20 countries evaluating their trust in 28 EU populations, our findings show that ethnic diversity does not influence inter-EU trust negatively. We even found evidence that an ethnically diverse composition has a positive effect on trust. It is highly recommended that future studies of trust at different levels – country, region, municipality and neighbourhood – account not only for individual and contextual characteristics but for target group characteristics as well.

References

Alesina A, Devleeschauwer A, Easterly W, et al. (2003) Fractionalization. *Journal of Economic Growth* 8(2): 155–194.

Allport G (1954) *The Nature of Prejudice*. Cambridge, MA: Addison Wesley.

Arzheimer K, Carter E (2006) Political opportunity structures and right-wing extremist party success. *European Journal of Political Research* 45(6): 419–443.

Christin T, Trechsel A (2002) Joining the EU? Explaining public opinion in Switzerland. *European Union Politics* 3(4): 415–443.

Central Intelligence Agency (CIA) (2008) *The World Factbook: Religions*. Available at: www.cia.gov/

Collier P (2001) Implications of ethnic diversity. *Economic Policy* 16(32): 127–166.

Dekker H, Aspeslagh R, and Winkel B (1997) *Burenverdriet, Attituden ten Aanzien van de Lidstaten van de Europese Unie*. The Hague: Nederlands Instituut voor Internationale Betrekkingen Clingendael.

Delhey J (2005) A trade-off between enlargement and integration? An analysis of trust between EU nationalities. *WZB Discussion Paper*, Social Science Research Center, Berlin.

Delhey J (2007a) Do enlargements make the European Union less cohesive? An analysis of trust between EU nationalities. *Journal of Common Market Studies* 45(2): 253–279.

Delhey J (2007b) Grenzüberschreitender austausch und vertrauen. Ein test der transaktionsthese für Europa. In: Franzen A, Freitag M (eds) *Sozialkapital, Grundlagen und Anwendungen. Kölner Zeitschrift für Soziologie und Sozialpsychologie*, Vol. 47. Sonderheft, 141–162.

Delhey J, Newton K (2005) Predicting cross-national levels of social trust: Global pattern or Nordic exceptionalism? *European Sociological Review* 21: 311–327.

Deutsch K, Burrell S, Kann R, et al. (1957) *Political Community and the North Atlantic Area: International Organization in Light of Historical Experience*. Princeton, NJ: Princeton University Press.

European Election Studies (EES) (2004) *European Election Study 2004*. Available at: www.ees-homepage.net

Esteban J, Ray D (1999) Conflict and distribution. *Journal of Economic Theory* 87: 379–415.

Esteban J, Schneider G (2008) Polarization and conflict: Theoretical and empirical issues. *Journal of Peace Research* 45(2): 131–141.

European Commission on Multilingualism (2008) *History and Language Families*. Available at: http://ec.europa.eu/education/languages/eu-language-policy/

Eurostat (2008a) *Population by Sex, Country of Birth and Age Group*. Available at: http://ec.europa.eu/eurostat

Eurostat (2008b) *GDP per country 2004*. Available at: http://ec.europa.eu/eurostat

Fearon J (2003) Ethnic and cultural diversity by country. *Journal of Economic Growth* 8(2): 195–222.

Follesdal A (2004) Constructing a European civic society – Vaccination for trust in a fair, multi-level Europe. *Studies in East European Thought* 54(4): 303–324.

Franklin M, Eijk CVD, and Marsh M (1995) Referendum outcome and trust in government: Public support for Europe in the wake of Maastricht. *West European Politics* 18(3): 101–107.

Fukuyama F (1995) *Trust: The Social Virtues and the Creation of Prosperity*. New York: Free Press.

Gesthuizen M, Meer TVD, and Scheepers P (2009) Ethnic diversity and social capital in Europe: Tests of Putnam's thesis in European countries. *Scandinavian Political Studies* 32(2): 121–142.

Handley D (1981) Public opinion and European integration: The crisis of the 1970s. *European Journal of Political Research* 9(4): 335–364.

Herreros F, Criado H (2008) The state and the development of social trust. *International Political Science Review* 29(1): 53–71.

Hooghe M, Reeskens T, Stolle D, et al. (2009) Ethnic diversity and generalized trust in Europe: A cross-national multilevel study. *Comparative Political Studies* 42(2): 198–223.

Jones E, Bijl NVD (2004) Public opinion and enlargement: A gravity approach. *European Union Politics* 5(3): 331–351.

Kunovich R (2004) Social structural position and prejudice: An exploration of cross-national differences in regression slopes. *Social Science Research* 33: 20–44.

Linssen H, Hagendoorn L (1994) Social and geographical factors in the explanation of the content of European nationality stereotypes. *British Journal of Social Psychology* 33: 165–182.

Lubbers M (2008) Regarding the Dutch 'Nee' to the European Constitution: A test of the identity, utilitarian and political approaches to voting 'No'. *European Union Politics* 9(1): 59–86.

Lubbers M, Gijsberts M, and Scheepers P (2002) Extreme right-wing voting in Western Europe. *European Journal of Political Research* 41(3): 345–378.

Mishler W, Rose R (1997) Trust, distrust and skepticism: Popular evaluations of civil and political institutions in post-communist society. *Journal of Politics* 59(2): 418–451.

Norris P (2005) *Radical Right, Voters and Parties in the Electoral Market*. Cambridge: Cambridge University Press.

Paxton P (2002) Social capital and democracy: An interdependent relationship. *American Sociological Review* 67(2): 254–277.

Pettigrew T, Tropp L (2006) A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology* 90(5): 751–783.

Pichler F, Wallace C (2007) Patterns of informal and formal social capital in Europe. *European Sociological Review* 23(4): 423–435.

Pinxten R (2002) What interculturalism could bring a solution to racism? In: Preckler E, Castille C, and Evens C (eds) *Europe's New Racism: Causes, Manifestations and Solutions* Antwerp: The Evens Foundation, 211–233.

Putnam R (1992) *Making Democracy Work*. Princeton, NJ: Princeton University Press.

Putnam R (2007) E Pluribus Unum: Diversity and community in the twenty-first century. The 2006 Johan Skytte Prize Lecture. *Scandinavian Political Studies* 30(2): 137–174.

Quillian L (1995) Prejudice as a response to perceived group threat: Population composition and anti-immigrant and racial prejudice in Europe. *American Sociological Review* 60(4): 586–611.

Reynal-Querol M (2002) Ethnicity, political systems, and civil wars. *Journal of Conflict Resolution* 46(1): 29–54.

Rohrschneider R (2002) The democratic deficit and mass support for an EU-wide government. *American Journal of Political Science* 46(2): 463–475.

Rokeach M, Smith PW, and Evans RI (1960) Two kinds of prejudice or one? In: Rokeach M (ed.) *The Open and Closed Mind* New York: Basic Books, [pp].

Rothstein B, Uslaner E (2005) All for all. Equality, corruption and social trust. *World Politics* 58(1): 41–72.

Schneider G, Wiesehomeier N (2008) Rules that matter: Political institutions and the diversity–conflict nexus. *Journal of Peace Research* 45(2): 183–203.

Statistics Iceland (2008) *Gini Coefficient: a European Comparison 2003–2005*. Available at: www.statice.is/

Tolsma J, Meer TVD, and Gesthuizen M (2009) The impact of neighbourhood and municipality characteristics on social cohesion in the Netherlands. *Acta Politica* 44(3): 286–313.

Van Oorschot W, Arts W (2005) The social capital of European welfare states: The crowding out hypothesis revisited. *Journal of European Social Policy* 15: 5–26.

Wagner U, Christ O, Pettigrew T, et al. (2006) Prejudice and minority proportion: Contact instead of threat effects. *Social Psychology Quarterly* 69(4): 380–390.