
Predicting Cross-National Levels of Social Trust: Global Pattern or Nordic Exceptionalism?

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This analysis of variations in the level of generalized social trust (defined here as the belief that others will not deliberately or knowingly do us harm, if they can avoid it, and will look after our interests, if this is possible) in 60 nations of the world shows that trust is an integral part of a tight syndrome of social, political and economic conditions. High trust countries are characterized by ethnic homogeneity, Protestant religious traditions, good government, wealth (gross domestic product per capita), and income equality. This combination is most marked in the high trust Nordic countries but the same general pattern is found in the remaining 55 countries, albeit in a weaker form. Rural societies have comparatively low levels of generalized trust but large-scale urban societies do not.

Cause and effect relations are impossible to specify exactly but ethnic homogeneity and Protestant traditions seem to have a direct impact on trust, and an indirect one through their consequences for good government, wealth and income equality. The importance of ethnic homogeneity also suggests that the difference between particularized and generalized trust may be one of degree rather than kind.

Introduction

Generalized social trust in large-scale urban-industrial society is a puzzle. Particularized (thick, personal) trust is more easily understood because it is strongest in small, face-to-face communities where people know each other, and social controls are strong (Gambetta, 1988; Portes and Sensenbrenner, 1993; Portes and Landholt, 1996). Instrumental or calculating trust is, by definition, explained in terms of rational self-interest (Arrow, 1972; Hardin, 1998; Ridley, 1997). But the origins of generalized trust ('thin' or impersonal trust between strangers and acquaintances) are more difficult to grasp. Why should we trust people we do not know well or at all? Yet generalized trust is particularly important in large-scale

society where social ties can be weak but extensive (Granovetter, 1973), and where society is mobile, differentiated, heterogeneous, and individualistic.

Surveys show that generalized trust is very unevenly distributed across the globe. In Norway and Sweden, six out of ten state that most people can be trusted, whereas in Turkey and Brazil, less than one out of ten holds this opinion. This article explains varying levels of social trust in different countries of the world, and identifies the best predictors of it. It also tests for the robustness of these predictors if the 'high-trust' Nordic countries are removed. For these purposes trust is defined as the belief that others will not deliberately or knowingly do us harm, if they can avoid it, and will look after our interests, if this is possible. This definition is close to

Gambetta's (1988: 217), Hardin's (1998) and Warren's (1999: 311).

The argument is presented in five main parts: first, we review the main approaches to the explanation of trust; second, we present an overview of data and methods; the third presents empirical results; the fourth considers Nordic exceptionalism, and the last draws general conclusions.

Theories of the Origins of Social Trust

For all that has been written about it in recent years, there is no general theory of trust. Rather, there is a degree of conceptual and theoretical confusion, and a variety of partial approaches (Lewis and Weigert, 1985; Misztal, 1996: 13; Seligman, 1997: 5–7). Therefore, we draw from general theories not of trust, but theories that have implications for such a general theory. The aim is to generate a set of propositions that are amenable to cross-national empirical examination in order to develop a statistical model of the social conditions associated with varying levels of trust in different countries.

Divisions and Cleavages

Social-psychological belief-congruency theory argues 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). Outgroups are mainly evaluated and categorized according to the congruency with ingroup beliefs. Similar groups are assessed more favourably than dissimilar ones. Although developed for explaining the prejudice and stereotypes majorities hold about minorities, the theory can be transferred to social trust: the greater the perceived similarity of other people, the more they are trusted. The greater the dissimilarity, the more suspicion and distrust. Therefore, the more homogeneous a society, the higher its trust, and vice versa. To the extent that the main social cleavages in modern society are formed around class, religion, language, and ethnicity, we expect that societies divided along these lines will have lower generalized trust scores. There is already evidence to support this hypothesis (Knack and Keefer, 1997; Uslaner, 2000: 580; Alesina and La Ferrara, 2002; Paxton, 2002; Costa and Kahn, 2003; Helliwell, 2003; Hero, 2003). Our measures of cleavage cover income inequality (as a class measure), and ethnic, linguistic and religious composition.

Social Strain and Disruption: Anomia, Conflicts and Public Safety

Durkheim's (1977 [1893]) analysis of organic solidarity suggests that the division of labour creates common interests in the social order based upon equal rights and duties. While trust is the foundation of solidarity and cooperation, distrust is likely to accompany anomic conditions that weaken the moral order and thereby the sense of trust. Anything that undermines the normative order (rapid social change, persistent social strain and disruption, and conflict) is likely to produce an increase in distrust and untrustworthy behaviour.¹ Not all social division and conflict is likely to be associated with distrust, however, because opposition to an external enemy may well draw society together and increase trust. The proposition tested here, therefore, is that internal (civil) war is likely to be associated with low trust, whereas external (foreign) war will tend to increase it, and the more recent the war, the greater its impact on trust is likely to be.

Economic Development and Modernization

According to Simmel (1950: 326) trust is 'one of the most important synthetic forces within society'. In modern society, trust is reinforced by an elaborate web of multiple group affiliations and an increasingly intensive and extensive range of social exchanges that sharpen the sense of reciprocity, mutual obligation, and trust. Risk and trust are closely associated, and it has also been argued that the wealthier the society, and the more it meets basic material needs, the more its members are able to take risks by virtue of their trusting attitudes, while, at the same time, making it both less necessary and less rewarding to act in an untrustworthy manner (Banfield, 1958: 110). A variation on the theme emphasizes not wealth, or the increasing division of labour, or multiple group membership but education as a force underpinning trust in modern society. Generalized trust is more abstract than personal trust, and it requires greater cognitive skill to handle it and its related concepts of reciprocity, equality, justice, and citizenship.

In stark contrast to Simmel, Tönnies (1963 [1887]) claims that trust is possible only if people are engaged in the intensive, face-to-face relations of *Gemeinschaft*. The increasingly rational, impersonal, individualistic, and instrumental nature of modern society undermines trust. Hence, modernization means an impersonal, rational-legal, and bureaucratic society that generates alienation, a disenchantment with the world, and

distrust of those we do not know, especially those who are not like us.

In short, there are contradictory theories, one arguing for social mechanism maintaining social trust as a powerful synthetic force in modern society, and the other that trust inevitably declines with modernization. The evidence supports both claims. Some find a positive association between wealth and trust (Knack and Keefer, 1997; Inglehart, 1999; Putnam, 2000: 319–25; Paxton, 2002), and education and trust (Knack and Keefer, 1997: 1279; Putnam, 2000; Uslaner, 2002), and no evidence of a correspondence between industrialization, size of place, or urbanization and low trust (Knack and Keefer, 1997: 1283; Alesina and La Ferrara, 2002: 221; Delhey and Newton, 2003). Paxton, (2002: 266), however, finds a strong negative correlation between industrialization and trust, and House and Wolf (1978) and Putnam (2000: 205) find that trust is higher in smaller communities.

In this research we use measures of wealth, education, urbanization, the size of the agricultural sector, and life expectancy as indicators of economic development and modernization. Some of these (education and wealth) may exercise a direct influence on trust, while others (life expectancy) are only indicators of general conditions that may be associated with trust.

Democracy and Good Government

If social trust is a collective property it is likely to be influenced by social institutions and structures, particularly those of government and the public sector. The reasons are not well understood, but they probably work on two levels. At the elite level, democracy is ‘a set of institutions designed for knaves’ that constrain political leaders to behave in a trustworthy manner, particularly the institutions of divided powers, regular elections, the rule of law, judicial oversight, a free press, freedom of information, and scrutiny of government. A similar set of professional and bureaucratic mechanisms try to maintain the trustworthy behaviour of a wide range of public and private officials, and private citizens. At the mass level, democracy encourages trust between individuals who are given the same rights and duties of citizenship (Weingast, 1998: 165; Levi and Stoker, 2000: 493).

Empirical research shows that the institutions and practices of democratic government are associated with trust (Putnam, 1993; Knack and Keefer, 1997; Inglehart, 1999; Booth and Richard, 2001: 55; Newton, 2001; Paxton, 2002). Evidence of a link between trust and government was also found in Communist countries where strong particular trust often prevailed over weak

generalized trust (Sztompka, 1996; Mishler and Rose, 1997). Similarly, trust is associated with tax paying and government efficiency (Putnam, 1993; Scholtz and Lubell, 1998), while Rothstein and Stolle (2003) found that universalistic welfare states encourages trusting relations.

Voluntary Organizations and Civil Society

Classical theory dating back to Tocqueville and Mill maintains that voluntary clubs and associations teach ‘the habits of the heart’ (Bellah *et al.*, 1985) of trust, reciprocity, and co-operation by bringing together people of different social backgrounds and socializing them in civic skills. Modern versions of the theory (Putnam, 1993, 2000; Warren, 2001) emphasize the importance of particular types of voluntary activity, particularly those that bridge important social differences and cleavages. The theory has a long and distinguished pedigree but some have questioned the importance of voluntary associations because few individuals spend much time with them, compared with school, work, the family, and the neighbourhood (Cohen, 1999: 219–23; Newton, 1999a; Levi, 1996).

Evidence is mixed. Some shows that members of voluntary organizations are more trusting (see for example, Brehm and Rahn, 1997; Knack and Keefer, 1997: 1281–2; Putnam, 2000: 136–7; Stolle and Rochon, 2001) but most finds a weak and patchy association (Newton, 1999a, b; Booth and Richard, 2001: 50; Paxton, 2002; Uslaner, 2002; Delhey and Newton, 2003). Uslaner (1999: 145–6) states bluntly that we do not learn trust in civic associations, and Hooghe (2003: 91) agrees.

Religion and Culture

One approach to social trust argues that it is ultimately based upon moral precepts and on religious beliefs and traditions (Knack and Keefer, 1997: 1283; Uslaner, 2002; Inglehart 1999: 94). Two world religions seem significant. According to Weber the transition from traditional to capitalist society depended upon the replacement of personal with impersonal trust, a process helped by the development of the Protestant ethic and its emphasis on equality, direct accountability to God, and the religious and economic importance of trust and trustworthiness (Miształ, 1996: 55; Seligman, 1997: 48–49). Confucian philosophy also emphasizes the importance of trust in others, elevating it to one of the eight basic moral principles and enjoining us to ‘Respect the old, educate the young, and trust your friends’.

This proposition is different from the religious cleavage model, which focuses on religious differences and

divisions, whereas a religious culture model focuses on the content of religious beliefs that encourage trusting attitudes and trustworthy behaviour.

Problems of Cause and Effect

As noted in previous work (Delhey and Newton, 2003: 114), in almost every case of an association between trust and another variable, the link may be one of cause or effect, or both. For example, economically equal societies may be more trusting either because social and economic equality encourages trust, or because trust makes it easier to redistribute income, or both. Similarly, wealth may be associated with trust because it helps to reduce risk, or because trust encourages economic growth. Equally, trust and wealth may reinforce each other. We return to the problem of cause and effect later.

Data and Methods

A measure of trust is available for 55 countries in Wave III (1995–7) of the World Values Survey (WVS), and 11 more in Wave II (1990). Since the trust scores correlate (0.88 Pearson's r , $P < 0.001$) in the 32 countries for which figures are available in both years, stability over short periods of time is evidently high, justifying the use of the 1990 trust scores as a valid proxy for the mid-90s.² The WVS questionnaire asks the tried and tested, standard question:

‘Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?’

However, six of the 66 nations for which we have trust data had to be excluded because other data were missing, leaving a total of 60 nations for this research.³

The data cover countries from all regions of the globe, though mostly west European (16) and east European (17). The Americas and Asia are represented with 11 countries each, Africa with three, and Oceania with two (see Table 1). Our 60 nations are not a sample, and given a total of 192 states in the world, not even a majority of the global total. Nevertheless, 60 countries are enough to provide a reliable basis for statistical analysis and is a larger number than used in any previous cross-national study; Knack and Keefer (1997) covered 29 countries, and Paxton (2002) 48.

The WVSs have some problems, because urban and high income groups tend to be over-represented in some countries, but these problems do not seriously detract from the randomness of the samples. They are the only surveys covering a wide range and large number of

countries, and are therefore heavily used in work on trust. Nevertheless, the trust measure has some deficiencies. Only one question about social trust is asked, albeit the classic one, and it would be better to use the more valid and reliable three-item Rosenberg scale and a more sensitive 0–4, or 0–10 rating scale, rather than the 0–1 scale of World Values. However, it should be noted that this is less of a deficiency for cross-national comparisons, where individual scores are aggregated to produce national averages. The highest national score is 65 per cent and the lowest is 3 per cent, producing a more refined measure of trust than the simple zero–one dichotomy of individual studies.

There may be ambiguity about what is meant by ‘most people’ in the question. The term covers a wider range than family, friends, and neighbours, but how far the circle extends is open to interpretation. Trusting people may extend the boundaries wider than low trust people, who may restrict ‘most people’ to those they trust. These objections are speculative, however, and there is good evidence to show that the question does its work adequately. Uslaner (2000: 575, 2002: 54) found that it loads heavily on trust in strangers, and concluded that it does measure generalized trust. The experiment reported by Yamagishi and Yamagishi (1993) also found a correspondence between trusting attitudes and trusting behaviour. Finally, similar kinds of countries generally produce similar sorts of trust scores (see Table 1), and although there may be some anomalies, these seem to be exceptions rather than the rule.

A data set was constructed consisting of the aggregate national trust scores, as the dependent variable, and a wide range of independent variables were collected, according to the theories and hypotheses outlined above (see Table 2).

Some of these variables are constructed from a complex set of indicators, but even so the resulting list of independent variables is larger and more varied than any used in previous research on social trust. Inglehart (1999) tests the influence of three social variables, Paxton (2002) of six, and Knack and Keefer (1997) of eleven. A full account of measures and sources is available in Delhey and Newton (2004).

We are aware that some of the indicators are not the most refined measures of the concepts we have discussed. For example, income inequality, and measures of ethnic, linguistic, and religious diversity indicate a potential for cleavage based conflict, not the presence of actual conflict. Even the measure of gross national product (GNP) (per capita) is not without problems. We minimize these difficulties by factor analysing sets of variables to produce more reliable and valid measures.

Table 1 Social trust scores in different world regions (percentage of population trusting other people)

Americas	Western Europe	Eastern Europe	Asia	Africa	Oceania
<i>More than 50 per cent trusting (high-trust societies)</i>					
	Norway	65			
	Sweden	60			
	Denmark	58			
Canada	53	Netherlands 53	China	52	
<i>30 per cent and more trusting (medium-trust societies)</i>					
	Finland	49			New Zealand 49
	Ireland	47			
	Iceland	44	Japan	42	
	Germany	39			Australia 40
U.S.A.	36	Switzerland 37	India	38	
	Italy	35			
	Belgium	34			
	Austria	32			
	Britain	30	Ukraine 31	South Korea 30	
	Spain	30			
<i>10 per cent and more trusting (low-trust societies)</i>					
		Bulgaria	29		
		Czech Republic	29		
Mexico	28				
		Albania	27		
Domenica	26	Slovakia	27		
		Latvia	25	Armenia	25
		Croatia	25		
		Belarus	24		
		Russia	24		
	France	23	Hungary	23	Ghana 23
	Portugal	22	Estonia	22	
Uruguay	22	Moldova	22	Azerbaijan	21
Chile	21	Lithuania	22	Bangladesh	21
		Romania	19	Georgia	19
Argentina	18	Poland	18	Pakistan	19
		Slovenia	16		South Africa 16
Venezuela	14				
Colombia	10				
<i>Less than 10 per cent trusting (no-trust societies)</i>					
		Macedonia	8	Philippines	5
Peru	5			Turkey	5
Brazil	3				

Source: World Value Surveys 1990, 1996; own computations.

Because of the large number of independent variables, the analysis proceeds through two stages. After looking at the distribution of social trust across the globe, the first stage examines a large number of bivariate correlations, and the second step uses the strongest of the ‘winning’ variables to model trust using multivariate analyses.

Results

In only six countries does as much as half the population express trust, these being Scandinavian nations (Norway, Sweden and Denmark), and The Netherlands, Canada, and China (Table 1). A further 17 countries fall into the medium trust range (30–49 per cent of people express

Table 2 Bivariate correlations with generalised social trust

Number	Variable	Unit	N	Year	Min	Max	Mean	Correlation with social trust
<i>Cleavages and conflicts</i>								
[1]	Income inequality (Gini)	0–100 (absolute inequality)	58	Around 1995	23	60	37	–0.466**
[2]	Ethnic fractionalization	Probability measure, 0–1	60	1983–2001	0	0.85	0.32	–0.385**
[3]	Linguistic fractionalization	Probability measure, 0–1	59	1983–2001	0	0.87	0.29	–0.134
[4]	Religious fractionalization	Probability measure, 0–1	60	1983–2001	0	0.86	0.45	0.126
[5]	Internal war	Last year after 1945	60	1945–1996	45	96	63	–0.431**
[6]	Internal war after 1945	1 = yes (dummy)	60	1945–1996	0	1	0.42	–0.436**
[7]	Internal war after 1991	1 = yes (dummy)	60	1991–1996	0	1	0.3	–0.423**
[8]	Internal war after 1995	1 = yes (dummy)	60	1995–1996	0	1	0.17	–0.332**
[9]	External war	Last year after 1945	60	1945–1996	45	96	53.6	–0.173
[10]	External war after 1945	1 = yes (dummy)	60	1945–1996	0	1	0.23	–0.121
[11]	External war after 1995	1 = yes (dummy)	60	1995–1996	0	1	0.05	–0.196
<i>Modernization, wealth and population</i>								
[12]	Urbanization	% urban population	60	1996	17	97	65	0.210
[13]	Size of agriculture	% employment in primary sector	58	1996	2	72	19	–0.361**
[14]	Life expectancy	At birth in years	60	1995	51.4	80.0	72	0.507**
[15]	Education	Secondary net enrolment ratio	60	1995	22	100	74	0.393**
[16]	National wealth	GDP per capita in PPP	60	1995	1004	28752	10790	0.660**
[17]	Total population	Millions	60	1996	.3	1232	72	0.187
[18]	Population density	Persons per km ²	60	1996	2	834	117	0.034
<i>Good government (democracy and government effectiveness)</i>								
[19]	Freedom House score	7 = free to 1 = not free	60	1996	1	7	5.5	0.394**
[20]	Freedom House score, cumulated 20 years	7 = free to 1 = not free, averaged	60	1976–1996	1.6	7	4.6	0.528**
[21]	Former/actual Communist	1 = yes	60	1945–1996	0	1	0.35	–0.229
[22]	Government expenditure on health and education	% GDP	60	1996	1.5	15	9.2	0.471**
[23]	Political stability	Index, +2.5 (best) to –2.5	60	2000–2001	–1.45	1.61	0.42	0.642**

continued

Table 2 (continued)

[24]	Law and order	Index, 6 (best) to 0	58	2000–2001	1	6	4.2	0.684**
[25]	Rule of law	Index, +2.5 (best) to –2.5	60	2000–2001	–1.13	1.91	0.48	0.683**
[26]	Government effectiveness	Index, +2.5 (best) to –2.5	60	2000–2001	–1.10	1.93	0.42	0.641**
<i>Social climate (anomia and public safety)</i>								
[27]	Suicide rate	Per 100,000	35	1994–1998	0.4	80	6.6	0.030
[28]	Lethal accidents	Per 100,000	49	1997	11.5	104.2	43.3	–0.231
[29]	Homicides	Per 100,000	49	1997	0	130	10.4	–0.381*
[30]	Political corruption (CPI)	10 = highly corrupt to 0 = free	60	1996	0.6	9.3	5.0	–0.665**
<i>Voluntary organization membership</i>								
[31]	Membership	% members	55	1996, 1990	11	96	61	0.372**
[32]	Membership 3+	% members in 3 or more organizations	55	1996, 1990	0	59	20	0.345**
[33]	Active membership	% active members	55	1996, 1990	2	79	34	0.186
[34]	Active membership 3+	% active members in 3 or more organizations	55	1996, 1990	0	35	6	0.086
<i>Religious tradition (reference group: Roman Catholic society)</i>								
	Mixed Catholic/Protestant	Dummy						0.287*
	Protestant	Dummy						0.432**
	Orthodox	Dummy						–0.185
	Islamic	Dummy						–0.232
	Hindu	Dummy						0.087
	Buddhist	Dummy						0.216

Significance levels: *** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$.
Data sources are listed in the Appendix, Table A1.

trust), mainly the wealthy, OECD nations of Western Europe and the USA, plus one East European country and India. The remaining 37 countries have trust scores of under 30 per cent and may be described as low trust nations. Countries from all world regions are in this cluster, with a concentration in Eastern Europe, South America, and Africa. Within this last category there is a sub-group of very low trust nations (Macedonia, the Philippines, Turkey, Peru and Brazil) in which fewer than 10 per cent of the population express trust. They are closer to 'no-trust' than 'low-trust' societies.

Bivariate Associations

Table 2 presents the bivariate correlations between generalized social trust and the list of independent variables. Of the various cleavage measures, income inequality and ethnicity have strong negative correlations with trust, while linguistic and religious fractionalization are not significant. This suggests that it is not cleavages that matter so much as specific economic and ethnic cleavages.

None of our three measures of external war is significant, so there is no evidence that an external enemy will draw society together and lift trust levels. But internal wars do matter, and all four of our measures are negative and statistically significant. It makes little difference when the war took place in the 1945–95 period. Since one might expect effects to wane as the war recedes into the past, this suggests that it may not be internal war, as such, that is important, but the circumstances associated with war in the first place. In other words, the internal war measure may be important because it is a good indicator of deep cleavages in society which exist before, during, and after the war took place, whenever that may have been.

The wealth and modernization measures have a mixed but generally strong association with trust. GNP is particularly strong, suggesting that wealth and the benefits it brings are conducive to trust. The figure for education is highly significant but still substantially smaller than that for wealth, suggesting that education is less important than money. Moreover, the finding that both wealth and income inequality are associated with trust indicates that money matters for trust more than most things.

Trust is not low in urban societies or in large or densely populated ones, but it is low in agricultural societies. Taken together these figures lend no support to the theory that generalized trust is low in modern society, but suggest that this form of trust is low in agricultural society (see also Portes and Landholt, 1996).

All the political measures are strongly and positively associated with high trust, with the single exception of the former/current Communist countries, where the correlation is negative, as expected, but not significant. Trust is substantially higher in countries that have been democratic for 20 years or more. The last four political measures of political stability, law and order, rule of law, and government effectiveness are strongly associated with trust, although all four may be measures of the same or very similar things. Substantial correlations between trust and public expenditure on health and education show that government policies and services also matter. It may be that spending on public services helps to generate a sense of citizenship and social trust, while market-driven societies are more individualistic and competitive, and less trusting.

Two measures of social strain and disruption – the suicide and accident rates – do not correlate with trust, and a third measure – the murder rate – produces a figure that is significant but not substantial. However, a fourth measure – corruption – yields one of the strongest correlations in the table. Perhaps it is not surprising that corruption and distrust are associated since corrupt behaviour is untrustworthy behaviour, but the closeness of the association stands out, and supports the idea that public corruption effects on trust between citizens.

The measure of voluntary organization membership is strong enough to be included in the second stage of the analysis, but active membership of associations is not. This indicates that voluntary organizations may not be particularly important for the generation of trust.

Finally, only two of the religious measures show significant correlations, both related to Protestantism. Countries that are dominantly Protestant or have a significant Protestant minority (mixed Protestant–Catholic countries) show higher levels of trust than our group of reference, the Catholic countries. No other religion makes a difference.

Multivariate Analysis

The 'winning' variables in the bi-variate analysis are now used in the second, multivariate stage of the analysis. There are two problems. First, even 60 cases allow us to test the power of only a few independent variables simultaneously. Second, many of the winning variables are strongly correlated with each other (multi-collinearity). For example, rich countries are generally egalitarian ones with democratic governments, and many of them have a Protestant background, low rates of corruption, and no internal wars in their recent history.

One solution is to factor analyse groups of variables that are conceptually close to produce a single score that is a more reliable and valid indicator of a complex concept such as economic development or government quality. Care must be taken to group only those variables that are closely related conceptually. For example, the five indicators of government performance (rule of law, government effectiveness, political stability, freedom, and law and order) are different aspects of much the same thing. Factor analysis also shows that they are closely associated statistically. Therefore we are justified in producing an overall score that serves as a good indicator of the ‘quality of government’, or ‘good government’.⁴ For the same theoretical and empirical reasons we combine wealth, urbanization, life expectancy, size of the agricultural sector, and education enrolment to produce a single measure of economic development/modernization.⁵

In regression models the economic development factor was not statistically significant after allowing for the effects of Protestantism and ethnic fractionalization (see Table 3). This is puzzling since wealth and modernization are obviously closely associated, and both are closely associated with trust. A closer look at the

bi-variate relations shows that the economic development/modernization factor contains some variables not strongly associated with trust (urbanization, agriculture, and secondary school enrolment) which dilute the impact of the composite modernization factor, and conceal the power of the single wealth variable. When the latter is used in the regressions (Table 3) it retains the strength of its association with trust. It seems, therefore, that it is wealth that matters most for trust, not the accompanying features of economic development and modernization.

It is not possible to reduce any other grouping of variables by means of factor analysis. For example, the cleavage measures have a strong theoretical link with the anomia measures of social disturbance and disruption, but the resulting factor fails the test of a Kaiser Meyer Olkin value of 0.6 or more. As a result we are left with the problem of multi-collinearity among the remaining independent variables, and in particular an overlap between wealth and the good government factor.

In response to the multi-collinearity problems the rest of the paper follows the strategy of organizing our variables according to exogeneity and endogeneity, and running a series of regression models to establish which

Table 3 OLS-regressions [Beta (T-value)] on social trust

	Model number							
	1	2	3	4	5	6	7	8
Protestantism* (Dummy)	0.57*** (5.94)	0.50*** (4.62)	0.33** (2.74)	0.52*** (5.28)	0.59*** (4.82)	0.59*** (4.96)	0.50*** (4.39)	0.37** (3.31)
Ethnic fractionalization	-0.40*** (-4.14)	-0.32** (-2.98)	-0.22* (-2.03)	-0.31** (-2.99)	-0.24* (-2.05)	-0.40*** (-4.12)	-0.37*** (-3.72)	-0.26* (-2.56)
Modernization (Factor)		0.18 (1.50)						
Quality of government (Factor)			0.41** (3.14)					
Income inequality				-0.25* (-2.35)				
Homicides					-0.19 (-1.64)			
Voluntary organization membership						0.05 (0.378)		
Government social spending							0.13 (1.11)	
National wealth								0.36** (3.00)
R2 (corrected)	0.46	0.47	0.53	0.49	0.50	0.49	0.46	0.52

*Dominant Protestant country or mixed Protestant-Catholic country.

Significance levels: ***P < 0.001, **P < 0.01, *P < 0.05.

Numbers of observations: 60 countries.

combination of different variables produces the best fit. The first exogenous variable is the Protestant religion. The argument is not that Protestant theology or beliefs necessarily pervade countries that are now labelled Protestant, but that a Protestant cultural imprint has shaped a wide range of present-day features from economic development, forms of government, and social institutions, to attitudes towards citizenship, equality and corruption. Therefore, religious tradition is treated as an exogenous variable that proceeds other variables historically, without being influenced by them.

Similarly, internal (civil) wars are exogeneous because we measure them over a 50-year period. If civil war, in itself, is not as important as civil war as an indicator or outcome of deep cleavages, then contemporary wars can be taken as a manifestation of historically important divisions within society. Ethnic composition is another exogeneous variable that changes only slowly over time. Its stability makes it more plausible to assume that it has a long-term effect on social developments, rather than the other way round. We are aware that wealthy countries that guarantee human rights for minority groups may attract immigrants, and therefore good government and wealth affect patterns of migration, but ethnic composition does not change greatly in the short run, even in the modern era of mass population movements, and we feel justified in classifying it as an exogenous variable.

When the three exogenous variables are run in the same ordinary least squares (OLS) regression on trust, Protestantism and ethnic composition turn out to be highly significant, but the power of civil wars declines to insignificance. We therefore exclude it from the next set of OLS regressions (Table 3) that include each endogenous variable in turn. These enable us to identify the endogeneous variables that have an association with trust, and which of the exogeneous variables have a direct effect and an indirect one that works through an endogenous variable. Model 1, which serves as the basic model, shows that Protestantism and ethnic fractionalization together explain 46 per cent of the variance in social trust, with religion having the biggest impact.

In the subsequent regression models (2 to 8), each of the mediating variables – quality of government, income inequality, homicides, voluntary association membership, government social spending, and national wealth – is added in turn to the basic model. They show that:

1. In each regression, religious tradition remains a strong (usually the strongest) predictor of social trust. However, the considerable drop in the influence of religion in Model 3 indicates that the religious cul-

ture also has strong influence on the development of government institutions and practices, with Protestant countries usually having the highest good government scores. Protestantism seems to have a direct association with trust, and an indirect one through its effect on good government and, to a lesser extent wealth and economic equality.

2. Ethnic fractionalization remains significant in all the models, but it also loses much of its strength when the good government variable is entered. This is probably because ethnically diverse societies have more difficulty in generating and sharing public goods (Alesina *et al.*, 1999; Goldin and Katz, 1999), and in establishing public institutions that work well (La Porta *et al.*, 1999).
3. After controlling for Protestantism and ethnic diversity, the impact of murder rates, voluntary organization membership, and government spending on health and education is not significant. Models 3, 4 and 8 show that the statistical power of good government, income inequality and national wealth retain their significance.

The best model (Figure 1a) includes two exogenous variables (Protestant traditions and ethnic composition) and three endogenous ones (good government, wealth, and income inequality). Because multi-collinearity is so high, especially between wealth and good government, these variables cannot be put in the same equation, and therefore we cannot say precisely how much independent influence each has. Nevertheless, three conclusions are possible. First, both exogenous variables have a direct impact on social trust, Protestant culture being the stronger. Second, among the endogenous variables, wealth and good governance are more important than economic equality, but because wealthy countries have good government it is not possible to disentangle their effects. Third, the indirect effects of both Protestantism and ethnic fractionalization flow mainly through good government and national wealth, less so through economic equality.

Nordic Exceptionalism?

The Nordic countries are exceptional cases. Norway, Sweden and Denmark have the highest levels of trust of any of our 60 nations. Finland and Iceland are not far behind. All five countries are Protestant, rich, and ethnically homogeneous, and have high good government scores. Scatterplots (Figure 2) illustrate the problem: the Nordic nations have extreme scores on our most powerful

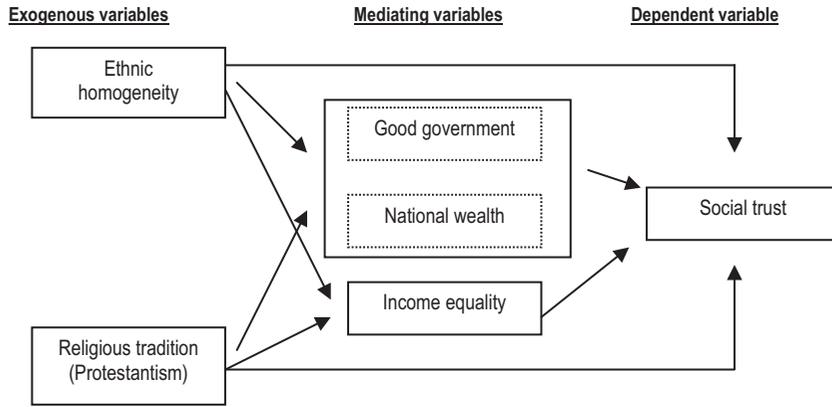


Figure 1a Explaining cross-national differences in social trust: main influences (all nations including the Nordic countries)

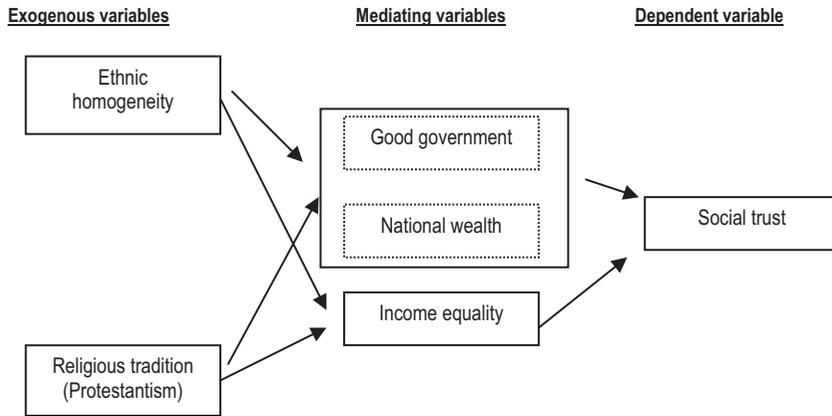


Figure 1b Explaining cross-national differences in social trust: main influences (excluding the five Nordic countries)

explanatory variables, as well as trust itself. Could it be that the Nordic outliers distort the results? Are the results truly global, or merely the result of Nordic exceptionalism? To test this possibility we repeated the regressions, excluding the five Nordic countries (Table 4).

The results show that there is indeed Nordic exceptionalism at work. Taking out the Nordic countries from the regressions means reducing the explanatory power of the models considerably, a loss of almost 20 percentage points in the basic model (from 0.46 to 0.29), and between 14 and 21 percentage points in the other models. Nevertheless, taking them out does not eliminate our main conclusions. In all models except the third, Protestantism retains a significant association with trust. Ethnic fractionalization is not so closely associated with trust outside the Nordic societies for it loses its significance in three of the seven models.

The important point about Tables 3 and 4, however, is that the same set of five variables are directly or indirectly associated with trust, whether the Nordic countries are included or not: Protestant religious traditions, ethnic fractionalization, wealth, good government, and income equality. The consistently robust nature of the findings allows us to conclude that is not Nordic exceptionalism that drives the results. The same patterns, albeit in a somewhat weaker form, are found across the rest of the globe (Figure 1b).

Conclusion

Of the theories outlined briefly at the start of this article, three fail to find much support in our comparison of levels of generalized social trust in 60 countries. The theory

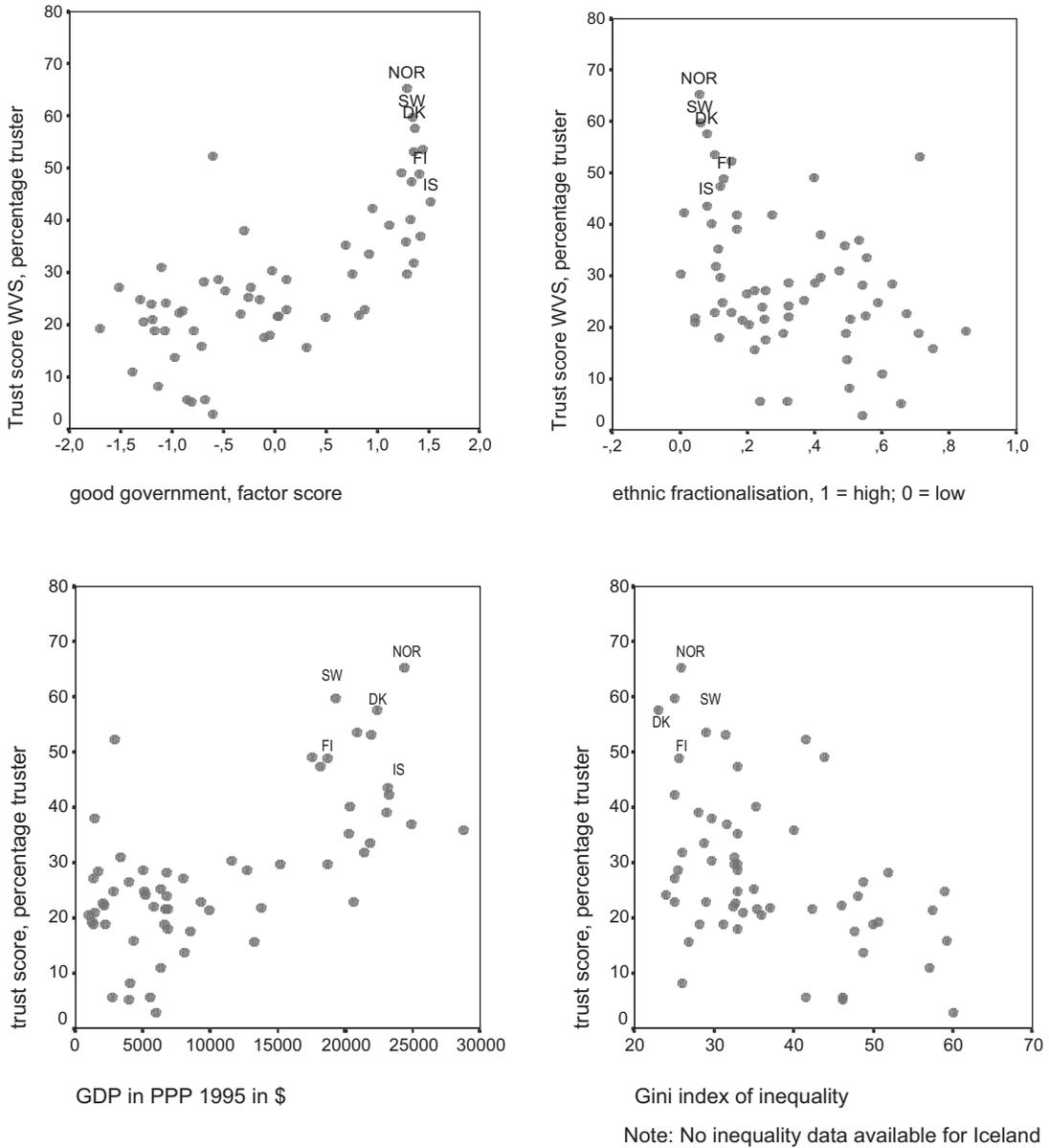


Figure 2 Scatterplots of social trust against selected variables.

that social trust declines in modern *Gesellschaft*-type societies is not consistent with the evidence. On the contrary it is the agricultural, *Gemeinschaft* societies that have lower levels of generalized trust, although we cannot say whether they are high on particularized trust. The evidence we have about generalized trust shows that it is usually stronger in societies with high scores on indicators of modernization – wealth, education, lon-

gevity, and a small agricultural sector. At the same time, generalized trust is not significantly associated with measures of urbanization, population size, or population density. Taken together this suggests that Simmel, rather than Tönnies, was correct to argue that modern money economies with greater individual freedom and personal independence have ways of maintaining social trust.

Table 4 OLS regressions [Beta (T-value)] on social trust (excluding the five Nordic countries)

	Model number							
	1	2	3	4	5	6	7	8
Protestantism* (Dummy)	0.49*** (4.06)	0.40** (3.10)	0.21 (1.50)	0.45*** (3.79)	0.48** (4.82)	0.53*** (3.82)	0.45** (3.35)	0.28* (2.09)
Ethnic fractionalization	-0.36** (-3.02)	-0.27* (2.04)	-0.14 (-1.079)	-0.27* (-2.21)	-0.16 (-1.11)	-0.38** (-3.01)	-0.35** (-2.83)	-0.20 (-1.66)
Modernization (Factor)		0.21 (1.57)						
Quality of government (Factor)			0.48** (3.39)					
Income inequality				-0.26* (-2.11)				
Homicides					-0.27 (-1.910)			
Voluntary organization membership						0.02 (0.89)		
Government social spending							0.09 (0.64)	
National wealth								0.41** (3.04)
R2 (corrected)	0.29	0.28	0.39	0.31	0.32	0.28	0.26	0.36

*Dominant Protestant country or mixed Protestant-Catholic country.

Significance levels: *** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$.

Numbers of observations: 55 countries.

How do they manage this? One classic answer, dating back to Tocqueville and John Stuart Mill and developed by civic society and social capital theorists, is that trust is generated by participation in voluntary associations. However, the four measures of voluntary membership and activity used in this study fail multivariate tests, showing that voluntary membership and activity does rather little for generalized social trust, a finding that is consistent with much individual level analysis.

The third theory suggesting a connection between low social trust and conditions of *anomie* also finds little support. Generalized trust does not (or not substantially) vary with either the suicide rate, or the accident rate, or the murder rate. Not even internal or external war, which might be expected to result in anomia, maintain their significance in the multivariate analysis. It seems that society – some societies, at any rate – may be able to tolerate some degree of strain and disruption without suffering a great loss of trust. This is consistent with our earlier conclusion that modern society has ways of counteracting the disintegrative tendencies of individualism, rationalism, materialism, and the impersonality of bureaucratized, urban-industrial life.

The positive results of the research suggest what these counteractive forces might be. The highest levels of gener-

alized social trust across the globe are closely associated with a tight syndrome of religious/cultural, social, economic, and political characteristics. Protestantism, but no other religion, is strongly associated with trust, probably because the Protestant ethic has left an historical imprint on cultures of equality and the importance of consistently trustworthy behaviour. An absence of ethnic cleavages is also important, presumably because people of the same ethnic background find it easier to trust one another. Wealthy and economically egalitarian societies are trusting societies, although wealth seems to matter more than equality. Last, good government is an essential structural basis of trust. Corruption free and democratic government seems to create an institutional structure in which individuals are able to act in a trustworthy manner and can reasonably expect that others will generally do the same.

This set of factors forms a single, theoretically and empirically cohesive syndrome of variables associated with trust: Protestantism, the accumulation of wealth, an absence of corruption, and equality go together; income equality and ethnic homogeneity are linked; democracy, the absence of corruption, and income equality are also associated with one another; democracy and public institutions to promote economic well-being and a common sense of citizenship are mutually supportive. In turn, generalized social trust is

easily linked in theoretical terms to each of these variables, either as a cause or an effect, or both.

Trust is strongest where all these conditions are found in the purest combinations – the Nordic countries. Nevertheless, removing them from the analysis does not alter the combination of variables associated with trust in the remaining 55 countries, although it reduces their statistical power substantially. In broad outline the models remain simple, consistent, and relatively robust, with or without the Nordic countries. It does not explain all the variance, of course, e.g. the fact that there is only a one per cent difference in social trust scores between Britain (wealthy, democratic and protestant) and Bulgaria (much poorer, less democratic and orthodox). Such cases remind us of the limits of the approach pursued here, and maybe of survey research in general. But our model goes a long way towards establishing patterns of probabilities.

Here we return to the problem of cause and effect. We can say little about this, partly because our analysis is cross-sectional, but mainly because it is easy to see trust as either a cause or effect or both in most of our statistical models. Protestantism is more of an historical cause than effect, and so is ethnic homogeneity insofar as this predates the trust levels of the 1990s, but it is not possible to order good government, gross domestic product (GDP), or income equality in the same historical way, or to disentangle their cause and effect relations with trust.

In one important sense this does not matter very much. It is evident that generalized social trust is tightly integrated into a single syndrome of ethnical/cultural, social, economic, and structural conditions which are either theoretically or empirically linked, and usually both (Inglehart, 1997, 1999; Welzel, Inglehart and Klingemann, 2003). Trust is tangled up as both cause and effect with these conditions, and it is probably both pointless and impossible to try to disentangle its relations with them, even if we had perfect data.

Finally, the strength of the direct and indirect association of ethnic homogeneity with trust raises a question about exactly how general generalized social trust is. Particular trust is trust in people we know, or who are like us. Generalized trust is trust in people we may not know and who may not be like us. The finding that ethnic homogeneity is strongly associated with generalized trust suggests that it may not be easily extended to all others in general, as opposed to others who are like us. In other words, generalized trust is strongest where we have something in common with others, especially where we are from the same ethnic background. This is exactly the condition associated with particularized trust. It does not follow that generalized trust does not or cannot

exist, only that it is stronger where people have a shared ethnic identity, which makes it different from particular trust in degree rather than kind. It raises the question of how generalized generalized trust actually is.

Notes

1. We do not argue that all forms of social conflict are necessarily associated with low trust, but that this is likely to be the case in general. According to Simmel (1950) and Coser (1956), overlapping and interlocking conflicts and cleavages do not threaten social cohesion, but can work as synthetic forces within societies. The theory is similar to the social capital claim that voluntary organizations that bridge important social differences will help to generate social trust between social groups.
2. On the stability of national trust scores over time see also Knack and Keefer, 1997: 1262.
3. These were Bosnia, Montenegro, Northern Ireland, Puerto Rico, Serbia, and Taiwan.
4. The factor quality of government consists of (factor loadings in brackets): rule of law index (0.98); government effectiveness index (0.97); political stability index (0.93), cumulated freedom score (0.84), and law and order index (0.82). The explained variance is 83 per cent, and the KMO value 0.83. Among the bi-variate correlations in Table 2, the correlation between trust and corruption stands out as particularly strong (−0.665). Since the composite measure already includes an assessment of corruption (via the subindex ‘rule of law’), it covers also this aspect of good government, and hence our stand-alone measure of corruption (the CPI) is not used in the following regressions.
5. The factor economic development consists of (factor loadings in brackets): employment size agriculture (−0.90); life expectancy (0.90); GDP in purchasing power standards (0.85), urbanization (0.79) and secondary education enrolment ration (0.64). The explained variance is 68 per cent, and the KMO value 0.842.

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Web resources

AKUF: <http://www.sozialwiss.uni-hamburg.de/publish/Ipw/Akuf/>

Freedom House: <http://www.freedomhouse.org/>

Transparency International: <http://www.transparency.org>.

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Appendix

Table A1 Sources of indicators

Indicator	Source
[1]	United Nations, Human Development Report 1996
[2]–[4]	Alesina A. <i>et al.</i> , 2002
[5]–[11]	Arbeitsgemeinschaft Kriegursachenforschung (AKUF) web resources
[12]	United Nations, Human Development Report 1996
[13]	OECD, Labour Force Statistics
[14] [15]	United Nations, Human Development Report 1998
[16]	United Nations, Human Development Reports (various volumes)
[17] [18]	United Nations, Demographic Yearbook 1996
[19] [20]	United Nations, Freedom House web resources
[21]	Own entry
[22]	United Nations, Human Development Reports (various volumes)
[23]–[26]	United Nations, Human Development Report 2002
[27]	United Nations, Human Development Reports (various volumes)
[28] [29]	United Nations, Demographic Yearbook 1998*
[30]	Transparency International web resources
[31]–[34]	World Value Survey, waves II and III

**Item taken from Ruud Veenhoven's States of Nations database.*

Indicator numbers refer to the order of appearance in Table 2.