

Three forms of trust and their association

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This article investigates the relationships between particular social trust, general social trust, and political trust and tests a variety of political, social-psychological, and social capital theories of them. This sort of research has not been carried out before because until the World Values Survey of 2005–07 there has been, to our knowledge, no comparative survey that includes measures of particular and other forms of trust. The new data challenge a common assumption that particular social trust is either harmful or of little importance in modern democracies and shows that it has strong, positive associations with other forms of trust. However, the relationships are not symmetrical and particular social trust seems to be a necessary but not sufficient cause of general social trust, and both forms of social trust appear to be necessary, but not sufficient conditions for political trust. Strong evidence of mutual associations between different forms of trust at both the individual micro level and the contextual macro level supports theories of rainmaker effects, the importance of political institutions, and the significance of social trust for political trust. In more ways than one, social trust, not least of a particular type, seems to have an important bearing on social and political stability.

Keywords: particular social trust, general social trust, political trust, social capital

Introduction: on social and political trust

In a recent and comprehensive overview of the voluminous and rapidly expanding literature, Peter Nannestad (2008: 432) concludes that ‘The question of trust is a huge puzzle that is not even near solution’. This article tries to solve a part of the puzzle exploring the three-cornered set of associations between particular social trust, general social trust, and political trust. This work focuses on only a part of the puzzle, but at the same time it is at the heart of the much larger project of political sociology conceived as a study of the relationship between politics and the wider society. It also goes to the heart of social capital theory and its claim that contextual effects (the rainmaker effect) have a strong impact on individual trust, as well as considering the impact of institutions on different forms of trust. In other words, it considers both micro theories of a bottom-up, social-psychological,

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and individual nature, and top-down theories that focus on government, social institutions, and aggregate levels of trust.

Much of the current interest in trust derives from social capital theory, which argues that social trust is intimately related to political trust and hence to the health and stability of democracy. It is said that the slow erosion of social trust, and the voluntary associations and social networks that help to produce it, explain the declining levels of support for political leaders and the institutions of government across much of the western world (Putnam, 2000, 2002; Dalton, 2004). In this regard, many writers find it useful to distinguish between particular and general social trust, reasoning that the latter is most important for social capital in a large-scale, mobile, and socially mixed society – a society of strangers (Sahlins, 1972; Newton, 1999: 20–21; Warren, 1999: 8–12). However, there is considerable disagreement in the contemporary literature about (1) the nature and the origins of particular and general social trust, (2) the relationship of particular trust to general trust, and (3) the relationship of different forms of social trust to political trust. Hence, there is also disagreement about what combinations of different forms of trust contribute to social and political stability.

This paper examines the nature, associations, and origins of three kinds of trust. The first part discusses the nature of different kinds of trust, and the second focuses on three models of them to be found in the voluminous and growing social science literature. The third part describes the data used in the study, together with some preliminary empirical results on which the methods and approaches are based. The fourth part proceeds by way of correlation and multi-level analysis to examine the associations between the three types of trust and the independent variables linked with them. The final section returns to the three models of trust, drawing some conclusions about them and more general issues.

The nature of particular, general, and political trust

Particular and general social trust

For some, particular trust is based on knowledge of and close contact with others gained from close and constant contact with others. Hence, Hardin states, ‘for me to trust you, I have to know a fair amount about you’ (Hardin, 2000: 34). Similarly, Rose (1994: 29) finds that east Europeans ‘know who they can trust and trust who they know’, which is generally a fairly small circle of family, friends, and colleagues (see also Luhmann, 1979: 43; Yamagishi and Yamagishi, 1994; Offe, 1999: 56). In contrast, Uslaner (2000–2001: 573, 2008a: 102) refers to knowledge-based trust as strategic trust, and distinguishes it from particular trust, which is ‘faith only in your own kind’. Strangers, he says, are presumed to be untrustworthy, and he gives the example of religious fundamentalists who see non-believers as heathens.

Empirically, there is probably a good deal of overlap between ‘knowledge based’ particular trust and ‘own-kind’ particular trust, but theoretically they

are distinct. In daily life, most people probably come into closest contact with people like themselves, and they probably develop their most trusting relations with people they come into close and constant contact with, but we cannot assume either of these claims. Do people usually, invariably, or inevitably trust others because they are of the same family, church, ethnic group, neighbourhood, profession, class, status, gender, or generation? Do we trust the person in the next office because he or she is of the same class, status, education, age, ethnic group, and nationality as us? These are subjects for empirical research rather than matters of definition.

In this article, we try to avoid empirical speculation by defining particular trust in a neutral way. Following the standard Oxford English Dictionary definition, the word 'particular' is used here as an adjective describing the noun 'trust' where social trust is associated with specific people or groups of people, whether known or in-group others. General trust is not limited in this way. It extends in a more abstract manner to people as a whole in an unselective and unspecific manner. General trust is inclusive. General trust is the belief that most people can be trusted, even if you do not know them personally, and even if they are not like you socially (Uslaner, 2001–2002: 573). Accordingly, Misztal (1996: 72) suggests that social trust ranges along a continuum from the personal (particular) to the abstract (general), while others see this as a continuum of 'thick' and 'thin' trust, the latter being a basis of the weak, low-density ties of large-scale society (Granovetter, 1973, 1983).

Since it is often assumed that general trust is most important for modern western society, most comparative research ignores particular trust and what little research is published on the subject is impressionistic or else based on plausible assumptions or limited case studies. To our knowledge, there was no systematic comparative study of particular social trust until the World Values survey of 2005–07, the basis of this work, which breaks new research ground and produces new and novel conclusions. However, it seems reasonable to hypothesize with Uslaner (1999: 123) that everyone must trust someone, and consequently that particular trust is fairly widespread in all societies. Much more is known about general social trust, which is a relatively rare commodity in some countries because it involves risks, unknowns, and short-cuts (Luhmann, 1988; Kollock, 1994: 319; Misztal, 1996: 18). In only eight of the 93 nations covered in the World Values study of 2000 does more than half the population say that 'most people can be trusted', and five of these are in the small group of affluent nations in northwestern Europe. In another 19 nations, mostly Organisation for Economic Co-operation and Development countries, between a third and a half express attitudes of general trust, but in much of central and east Europe, Africa, Latin America, and Asia, a minority of 25% is willing to express general trust (Newton, 2007: 346). Nevertheless, general trust is vital to modern, large-scale, mobile, and heterogeneous society in which the weak ties of daily life require risk-taking with strangers and casual acquaintances.

The relationship between particular and general social trust

Recent studies have begun to uncover the relationship between particular and general social trust, but with very different results. Some have found that they are distinct and sometimes incompatible sets of attitudes (Yamagishi and Yamagishi, 1994: 144; Yamagishi *et al.*, 1998; Newton, 1999: 180; Stolle, 2001, 2002; Uslaner, 2002: 54), while others find that the two can coexist, or that specific trust can promote general trust (Whiteley, 1999; Yosano and Hayashi, 2005; Glanville and Paxton, 2007; Freitag and Traunmüller, 2009). A third possibility is suggested in an experimental study finding cultural differences between Americans, who tend to trust strangers if they are of the same in-group as themselves, and Japanese, who place greater trust in strangers if they are members of the same personal social network, irrespective of in-group/out-group differences (Yuki *et al.*, 2005). The inconsistent results of research add to the puzzle of trust; are particular and general social trust mutually exclusive or mutually supportive, or does this depend on culture and context?

Social and political trust

Another major part of the trust puzzle is the association between different forms of social and political trust. For some years, empirical research failed to deliver clear support for the social capital theory that social and political trust are linked at the individual level. At best, the evidence was weak and patchy, and at worst it showed no clear associations between social and political trust (Wright, 1976: 104–110; Craig, 1993: 27; Orren, 1997; Hall, 1999; Kaase, 1999; Newton, 1999: 180–185, 2001, 2006a: 84–85; Newton and Norris, 2000: 62–66; Uslaner, 2000–2001: 586, 2002, 2008a: 111; Delhey and Newton, 2005). At the same time, there is better evidence that cross-national levels of aggregate social and political trust are positively associated (Inglehart, 1997, 1999; Rothstein, 1998; Putnam *et al.*, 2000: 26; Newton and Norris, 2000: 52–73; Newton, 2001; Paxton, 2002; Torpe, 2003; Freitag, 2003a; Van der Meer, 2003; Delhey and Newton, 2005; Kumlin and Rothstein, 2005; Kumlin, 2007; Oskarson, 2007; Svallfors, 2007; Gabriel and Walter-Rogg, 2008; Listhaug and Ringdal, 2008; Rothstein and Stolle, 2008a, b; Freitag and Bühlmann, 2009).

More recent studies, however, have found stronger associations between social and political trust at the individual level. Country studies in the United States, Switzerland, Germany, Sweden and Japan find a close tie between general social and political trust (Freitag 2003a, b; Glanville and Paxton, 2007; Bäck and Kestilä, 2008) and cross-national studies at the individual levels have produced similar evidence (Jagodzinski and Manabe, 2004: 85–97; Zmerli and Newton, 2008; Freitag and Bühlmann, 2009). The conclusion that social and political trust are, indeed, associated at both individual and cross-national aggregate levels revives a range of research questions concerning the political importance of social capital.

Although bits of the picture have been filled in, the puzzle of trust remains, not least the triangular set of relations between particular and general social trust and

political trust. A reading of the large and growing social science literature suggests that there are three main models of trust. One claims that different types of social and political trust tend to fit together in a mutually reinforcing pattern, another argues the opposite, and the third suggests a more complicated pattern in which some but not all forms of trust fit together. We will refer to these as the compatible model, the incompatible model and the conditional model.

Three models of social and political trust

Model 1: the compatible model

The simplest model presents all three types of trust as a single syndrome; those who are trusting in one realm of life are usually trusting in the others. Two main schools of thought contribute to this view. The first is the macro approach to social capital arguing that social and political structures and institutions are major influences on levels of trust. Societies with dense networks of social relations and voluntary associations, and with embedded institutions that enforce or encourage trustworthy behaviour (police, courts, civil service and welfare institutions), will develop high levels of social and political trust. This, in turn, will reinforce the institutions and norms of civil society and so create a virtuous spiral (Putnam, 1993, 2000; Rothstein, 1998; Tyler, 1998; Weingast, 1998; Rahn *et al.*, 1999; Knack, 2000; Levi and Stoker, 2000; Newton and Norris, 2000; Paxton, 2002; Delhey and Newton, 2005; Inglehart and Welzel, 2005; Uslaner, 2008b).

Social psychology offers a second theory for expecting that most forms of trust are closely associated in the same individual. Glanville and Paxton (2007) label it 'the psychological propensity model'. It argues that trust is a core personality characteristic, learned mainly in early life and intimately linked with other personality characteristics, especially a sense of control over life, a belief in interpersonal cooperation and a sunny and optimistic disposition. In contrast, the distrusting are a misanthropic breed with a dismal view of fate, human nature, and the possibility of cooperation (Erikson, 1950; Rosenberg, 1956, 1957; Allport, 1961; Cattell, 1965; Uslaner, 1999: 138, 2002: 79–86; 2000–2001: 571). If the social psychology school is right, trust and distrust of different kinds are unlikely to mix in the same individual.

The two theories are supported by some empirical evidence. Uslaner (2002: 32–33), for example, finds a small and positive correlation between particular and general social trust, and Herring *et al.* (1999) find little evidence in their study of African-Americans to suggest that strong in-group identity is associated with strong out-group dislike. Whiteley (1999) finds that measures of particular and general trust form a single cumulative scale. Bahry *et al.* (2005: 525, 529) find positive correlations between in-group and out-group trust and conclude that 'Faith in one's own and faith in major out-groups are not mutually exclusive, but complementary'. Glanville and Paxton (2007: 240) find no evidence that trust in any one domain (particular trust) hinders the development of general trust.

Other research finds a mutually reinforcing relationship between democracy, social trust, and political trust (Putnam, 1993, 2000: 136–137; Knack and Keefer, 1997; Inglehart, 1999; Booth and Richard, 2001; Newton, 2001; Paxton, 2002; Delhey and Newton, 2005). Zmerli and Newton (2008) and Zmerli *et al.* (2007) find a strong and significant positive correlation between individual general social trust and political trust in two separate studies covering democracies in Europe and the United States. Conversely, the political systems of the communist bloc generated both low political and general social trust (Sztompka, 2000; Mishler, and Rose 2001).

The empirical implications of the compatibility model are that (hypothesis 1) the three types of trust are positively associated. However, (hypothesis 2) while social psychologists argue that this is a feature of individual personality characteristics, (hypothesis 3) social capital theorists argue that the association may also be influenced by top–down social climates of trust and by social and political institutions that reinforce trustworthiness.

Model 2: the incompatible model

The second model is almost, but not quite, the reverse of the compatible model. It is based on reasons for believing that particular social trust may be incompatible with both general social trust and political trust. In his influential study of ‘Montegrano’ in southern Italy, Banfield (1958) argues that the local culture of amoral familism entailed trust in the family and automatic distrust of all others, including politicians who are presumed to be only self-interested. More recent work also argues that interpersonal trust (particular trust) is not an instance of a more general impersonal phenomenon, and nor can it simply be transferred to others or to other contexts (Cohen, 1999: 221). Hooghe (2008: 578) and Hardin (2002) say it should not be assumed that we will trust strangers simply because we trust the people we know. There is little theory or evidence to tell us how particular trust can be extended to a general form, which leaves a hole in the theory claiming that the particular can lead to the general.

Some research goes an important step further by claiming that particular and general trust are inimical. A recent study of Russia points out that particular trust is generally assumed to be a zero-sum entity (Bahry *et al.*, 2005: 525). Uslaner (1999: 124–125) writes, ‘the more dependent we are on our close associates and kin, the more we think of the world in terms of “we” and “they”. We won’t trust “most people”’ (Uslaner, 1999: 124). Warren (1999: 318) remarks that particular trust in members of the same family, clan, or group is often combined with general distrust of strangers. There is evidence that particular and general trust load on discrete factors (Yamagishi and Yamagishi, 1994; Uslaner, 2002: 54), and that general trust is weak among members of associations with strong in-group trust (Stolle, 1998: 503–504).

Other empirical work finds little evidence of associations between social and political trust at either individual or aggregate levels (Kaase, 1999; Newton, 2006a: 84–86, 2006b). This may be because the two are different things, social

trust being influenced largely by social variables, including class, education, and membership of voluntary associations, and political trust being associated mainly with political variables such as political interest, party identification, and use of the political media (Abramson, 1983; Lawrence, 1997; Mishler and Rose, 2001; Anderson and LoTempio, 2002).

The empirical implications of the incompatibility model are that there will be (hypothesis 4) a negative correlation between particular and general social trust, and (hypothesis 5) a negative or random association between social trust and political trust.

Model 3: the conditional model

The third model of trust suggests that there is no necessary incompatibility between particular and general social trust, and that the two may be positively associated in some cases, but not necessarily in most or all cases. There are three reasons for advancing this possibility, one logical and two empirical.

The logical argument is simple: it is difficult to conceive of an individual who is high on general trust but low on particular trust, since someone who trusts in general must logically trust in particular. The reverse is not true, however: to trust particular and selected others does not necessarily entail trusting people in general. At the same time, since everyone must trust someone, total distrust is probably as rare as total trust. Even the inhabitants of Montegrano had, perforce, to trust their own family, while distrusting all others.

The second argument for the conditional model is drawn from social psychology research. Much of it assumes, at least implicitly, that in-group identity is necessarily associated with out-group hostility (cf. Brewer, 1999: 430), but recent work shows that in-group attachment is independent of attitudes towards out-groups. Distrust of out-groups depends partly on competition for resources, how much the in-group feels threatened, and on the trade-off between the benefits of closure of in-group boundaries versus the opportunities of opening up to outside groups (Brewer, 1979, 1999, 2007; Yamagishi *et al.*, 1998; Hewstone *et al.*, 2002: 575–604; Voci, 2006).

The third argument supporting the conditional model of trust concerns the wider cultural and institutional context in which in-groups and out-groups exist. Lines of demarcation can change turning out-groups into in-groups, or vice versa. Bates *et al.* (1998) gave an example of how political change caused Serbs and Croats to turn from being peaceful social groups with a high rate of inter-marriage into hostile in- and out-groups. In times of war and crisis, national populations tend to forget their internal differences and concentrate on common and external problems. Liberal and egalitarian cultures may make it easier in some countries to combine particular and general social trust compared with other countries, and countries with established, corruption-free, and power-sharing democratic governments, low levels of inequality, Protestant traditions, a strong rule of law, and universal social services seem to make it easier for individuals to combine all three forms of trust (Freitag, 2003a; Rothstein and Stolle, 2003; Delhey and Newton, 2005;

Rothstein and Uslaner, 2005; Kumlin and Rothstein, 2005; Neller, 2008; Freitag and Bühlmann, 2009), compared with non-democratic countries where particular social trust seems to accompany a lack of political and general social trust.

Evidence of conditionality can be found in the very different social contexts of Russia and Germany. Along with other studies of Russia, Bahry *et al.* (2005: 530) find that some individuals express high particular with low general social trust, but they also find others who combine high particular and general social trust. Freitag and Traunmüller (2009) also find evidence of an overlap between general and particular trust in Germany. Trusting one's own group, or particular other ethnic groups, does not necessarily preclude a high level of general social trust, but is not necessarily associated with it either. It may depend upon circumstances.

The conditional model suggests (hypothesis 6) that while all those expressing general trust must necessarily express specific trust, the reverse is not necessarily true and that (hypothesis 7) not all of those who trust in particular will necessarily trust in general, although (hypothesis 8) some will combine both forms of social trust. Similarly, (hypothesis 9) the more open, democratic, and egalitarian a society the more its citizens will combine all three forms of trust.

A note of caution

Often assumed to be much less important than general social trust for modern society, particular trust has slipped into the background of research. The recent *Handbook of Social Capital* (Castiglione *et al.*, 2008) mentions it once, in passing, in its 720 pages. There are a few single-country surveys that include questions about both general and particular social trust, alongside questions about political trust, but until the most recent World Values survey we know of no cross-national study that includes batteries of questions about all three kinds of trust. Therefore, the three models outlined above are built on weak foundations of formal logic, brave assumptions, and some contradictory evidence, some of it circumstantial or based on single case studies. All three models have a *prima facie* plausibility, but Models 1 and 2 are contradictory and both cannot be right.

Data and methods

Since this study focuses on the relationship between social and political trust, it selects from the World Values survey of 2005–07 a set of countries with the highest democratic scores in the Polity IV project. There is little sense in analysing survey responses to questions about political trust in non-democratic countries, where, apart from anything else, the absence of freedom of speech makes it difficult to give honest answers. In 78 countries covered in the 1999–2000 World Values study, confidence in parliament was highest in Vietnam and China, with scores of 98% and 95%, respectively (Newton, 2007: 347). One of the longest and most advanced democracies in the world, Norway, had the same political trust score as Iran (70%), and

Sweden (51%) was barely higher than Zimbabwe (50%). Combining Polity IV democracy scores of 9 and 10 and the World Values data on trust produces a list of 22 democratic countries distributed across Europe, Asia, Africa, Oceania, and North and South America.¹ The World Values survey was carried out between 2005 and 2007. Sampling and fieldwork methods varied but included face-to-face interviews and mailed questionnaires.² In the 22 selected democracies, 29,163 respondents participated in the survey. In order to test for macro- and micro-level effects on our three individual types of trust, we run multi-level analyses that control for varying intercepts.³ The 2005–07 World Values survey includes a battery of questions about particular and general social trust as well as confidence in political institutions.

Social trust

The World Values survey asks a set of six questions about social trust.

I'd like to ask you how much you trust people from various groups. Could you tell me for each whether you trust people from this group completely, somewhat, not very much or not at all?

- Your family
- Your neighbourhood
- People you know personally
- People you meet for the first time
- People of another religion
- People of another nationality.

The first three deal with forms of particular trust involving known others with whom respondents have close ties (family and those they know personally) and people in their neighbourhood. These three measures cover particular social trust in the sense that they ask about particular, specific, and selected others. The last three questions cover general trust in unspecified and possibly different others who are not known personally. In addition, World Values asks: 'Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?'. This is the 'standard' general social trust question used in many surveys. Respondents are offered a 'Yes/No' option for this question, as against the four rating scale of the other six questions, which makes comparison difficult, but it provides a useful benchmark against which to judge the general nature of responses to the last three questions, and vice versa.

Principal component analysis of the pooled social trust data for 22 countries yields a two component solution, one weighted primarily on the measures of

¹ See Table 3.

² See World Values survey 2005–07 Codebook for further details (<http://www.wvsevdb.com/wvs/WVSDocs.jsp?Idioma=1>).

³ In accordance with Hox (2002), we tested in a stepwise manner the presence of random slope effects. The corresponding variance components were weak and often insignificant. For reasons of simplicity and parsimony, we decided to restrict the multi-level analyses to random intercept models.

Table 1. Principal component analyses of measures of social trust, promax rotation, structure matrix, with and without the standard general trust item

	Components			
	1	2	1	2
People of another nationality	0.852	0.292	0.879	0.246
People of another religion	0.837	0.287	0.870	0.238
People you meet for the first time	0.790	0.321	0.779	0.312
Most people can be trusted	0.532	0.136	–	–
Family	0.088	0.833	0.088	0.833
Neighbourhood	0.549	0.680	0.548	0.680
People you know personally	0.603	0.613	0.607	0.605
Eigenvalue	3.1	1.1	3.0	1.1
Explained variance in %	44.8	15.1	49.2	17.5
KMO		0.794		0.775

The newly released World Values survey integrated data set presents equilibrated weights for the 2005 survey in which $N = 1000$ or 1500 . All tables in this paper are based on equilibrated data in which $N = 1000$.

particular trust in known others and the other on the four measures of general trust (Table 1). This confirms the validity of the three general trust questions, and vice versa (see also Uslaner, 2002: 54). Although the six or seven trust measures cluster in two groups, these are not completely distinct, because trust in the neighbourhood and in people known personally show positive loadings on both components, though not the heaviest ones. This suggests that there are two types of social trust corresponding to the particular–general distinction, but that they overlap to some degree.⁴ Similar results have appeared in national studies of the United States, Germany, and Japan (Yosano and Hayashi, 2005; Glanville and Paxton, 2007; Freitag and Traunmüller, 2009), but Table 1 provides cross-national confirmation of these studies. It is consistent with empirical propositions 6 and 7 of the conditional model.

Political trust

The World Values survey asks the same questions about a set of six political and governmental institutions as follows:

I am going to name a number of organisations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?

⁴ This overlap is also confirmed by Mokken's scale analysis. Owing to lack of space, the results are not presented here, but they show significant and similar hierarchical patterns for the pooled and cross-national data. The scale analysis suggests that particular social trust lays the foundation for the development of general social trust.

Table 2. Principal component analysis of six measures of confidence in political institutions

	Component 1
Parliament	0.847
Government	0.807
Political parties	0.782
Justice system	0.761
Civil services	0.758
Police	0.676
Eigenvalue	3.6
Explained variance in %	59.9
Kaiser-Meyer-Olkin	0.864

Countries weighted by equilibrated weight ($N = 1000$).

The organisations named are parliament, the government, political parties, the justice system, the civil service, and the police. The World Values survey also asks about a further set of private institutions, but since this study focuses on interpersonal social trust and political trust, they are not included in this study.

In common with previous research (Listhaug and Wiberg, 1995; Zmerli and Newton, 2008), Table 2 shows that principal component analysis of the six World Values questions tapping political confidence reveals a single component. As with social trust, the principal component analysis shows a common cross-national pattern of responses to political confidence questions.

At this stage, we could conduct two kinds of analysis, one focusing on country variations and explanations of them, the other trying to build high-level cross-national generalizations about trust, irrespective of national differences. Notwithstanding the existence of national variations that are both interesting and important, this article chooses the second approach. The fact that different types of trust cluster in a clearly patterned way when individual data for 22 nations are pooled shows that it is also meaningful to take individuals as the unit of analysis, leaving national comparisons for later work. Correlation and multi-level analysis (see below) support this approach. In addition, analysing pooled individual data across 22 nations helps to set a broadly based framework of research within which particular country variations may be more meaningfully examined at a later stage.

The second choice involves using trust measures based either on factor loadings or indices. We choose to use indices here.⁵ The first index measures particular trust

⁵ Indices are preferred over factor scores because they can be interpreted more intuitively and involve fewer missing values (see also Zmerli and Newton, 2008 for arguments and evidence justifying the use of indices rather than factor loadings). The two indices of social trust are calculated by summing each individual's answers to the three trust questions and dividing by the number of valid responses. In the case of political confidence, six responses are summed and divided by the number of valid responses. The WV

in family, neighbours, and people known personally, and the second measures general trust in people met for the first time and those of other nationalities and religions. Both indices are based on the 4-point rating scale of the trust questions, ranging from 1 (low trust) to 4 (high trust) and have 13 parameter values. The standard general social trust question is dropped from the analysis for three reasons. First, as the authors have shown elsewhere (Zmerli and Newton, 2008), interviewees are offered a 'Yes/No' response option that does not discriminate as effectively as a 4-item rating scale, and second, a single-item measure of social trust is not as sensitive as a 3-item scale. Third, as the figures in Table 1 show, the 3-item scale in the World Values survey is a better measure of general social trust than the standard question. The political trust index is built in the same way using the six political confidence questionnaire items. It ranges from 1 (low trust) to 4 (high trust) and has 37 parameter values.

The study proceeds by way of correlation analysis to show the strength, direction, and consistency of the associations between the three types of trust in the 22 countries, before moving to multi-level analysis to test the strength of their associations with each other and with other individual and contextual variables.

Analysis and results

Cross-national patterns

Table 3 shows the distribution of national trust scores ranked in descending order of general trust. As hypothesized, particular trust is higher than general trust in every country and usually by a substantial margin. The average general trust score for all countries weighted equally is 2.3 on a 4-point scale. For particular trust it is 3.3, which is 43% higher. However, the hypothesis that general social trust is more common than political trust is not supported by the figures. Across the 22 countries, political and general social trust have the same mean of 2.3 and in 13 countries political trust is equal to, or higher than, general social trust. High levels of political compared with general trust are found in a mixture of countries, including South Africa, Switzerland, Finland, India, Cyprus, and Germany, which adds to the puzzle.

Correlations between the three types of trust show that they are positively and significantly associated (Table 4). All correlations except two are statistically significant at 0.01, and those between particular and general trust are most generally the highest, as one might expect.⁶ The correlations are generally within

trust scores have been recoded so that 1 is low and 4 is high. A recoding also applies to the standard general trust question (see Appendix 1).

⁶ The figures in the last two columns for Spain are anomalous and may be erroneous. It does not fit with previous work of this kind on Spain (see Zmerli *et al.*, 2007; Zmerli and Newton, 2008), which shows the country conforming to the general pattern in Europe. We also note in passing that the country figures presented in tables 3 and 4 are not intended to highlight the national differences that undoubtedly exist, but to show that it is possible to reach high-level generalizations about individual trust patterns in 22 democracies, notwithstanding country variations.

Table 3. Means of social and political trust by country, ranked by general social trust

	General social trust			Particular social trust			Political trust		
	Mean	Std. dev.	Unweighted (N)	Mean	Std. dev.	Unweighted (N)	Mean	Std. dev.	Unweighted (N)
New Zealand	3.0	0.8	352	3.6	0.4	907	2.4	0.5	924
Sweden	2.9	0.5	995	3.6	0.4	1003	2.6	0.5	1003
France	2.8	0.7	1000	3.5	0.5	1000	2.2	0.6	1001
Finland	2.7	0.6	1012	3.5	0.4	1014	2.7	0.5	1014
Great Britain	2.6	0.7	1004	3.4	0.4	1038	2.4	0.6	1037
United States	2.6	0.5	1216	3.3	0.4	1214	2.4	0.5	1211
Australia	2.6	0.5	1407	3.4	0.4	1411	2.4	0.5	1404
Switzerland	2.6	0.6	1228	3.4	0.4	1241	2.7	0.5	1240
South Africa	2.4	0.7	2968	3.2	0.5	2988	2.7	0.7	2974
Spain	2.3	0.8	1167	3.4	0.4	1199	2.4	0.5	1189
Poland	2.3	0.6	995	3.2	0.4	1000	2.0	0.6	983
The Netherlands	2.2	0.6	1020	3.2	0.5	1050	2.2	0.5	1047
India	2.2	0.8	1924	3.4	0.5	1984	2.7	0.8	1807
Bulgaria	2.2	0.7	977	3.3	0.4	995	2.1	0.7	990
Germany	2.2	0.7	2006	3.3	0.4	2039	2.2	0.5	2061
Italy	2.1	0.6	995	3.1	0.5	1010	2.3	0.5	1007
Chile	2.0	0.7	952	3.0	0.6	998	2.2	0.6	998
Romania	2.0	0.7	1710	2.9	0.5	1767	2.0	0.6	1755
Slovenia	1.9	0.7	1016	3.2	0.5	1033	2.0	0.6	1013
Cyprus	1.9	0.6	1049	3.1	0.6	1049	2.5	0.7	1049
Mexico	1.8	0.7	1554	3.0	0.6	1557	2.1	0.7	1550
Peru	1.7	0.6	1495	2.8	0.6	1500	1.7	0.6	1490
Average ^a	2.3	0.7	21,956	3.3	0.5	22,855	2.3	0.6	22,718

^aEntries are based on the weighted means of the three trust indices. Average scores and Ns are based on World values equilibrated weight ($N = 1000$). Countries in order of descending mean of general social trust.

Table 4. Correlations between indices of three types of trust. Pearson's r , by country

	General and particular social trust	General social trust and political trust	Particular social trust and political trust
Sweden	0.404***	0.166***	0.105**
New Zealand	0.500***	0.253***	0.201***
Finland	0.457***	0.315***	0.311***
United States	0.539***	0.299***	0.337**
France	0.441***	0.198***	0.249***
Australia	0.440***	0.182***	0.155***
Switzerland	0.399***	0.220***	0.228***
Great Britain	0.343***	0.276***	0.165***
South Africa	0.429***	0.251***	0.238***
Spain	0.376***	0.042	0.081**
Poland	0.370***	0.194***	0.213***
The Netherlands	0.370***	0.298***	0.281***
Germany	0.373***	0.217***	0.172***
Bulgaria	0.307***	0.218***	0.165**
Italy	0.389***	0.168***	0.259***
India	0.238***	0.357***	0.150***
Chile	0.475***	0.264***	0.231***
Romania	0.489***	0.249***	0.280***
Slovenia	0.336***	0.160***	0.197***
Mexico	0.453***	0.222***	0.229***
Cyprus	0.402***	0.249***	0.388***
Peru	0.457***	0.168***	0.194***
Average ^a	0.488***	0.302***	0.297***

^aResults are based on equilibrated weights ($N = 1000$); *** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$.

the same, rather small range in each column showing, once again, strong cross-national consistency. One surprise, however, is that in 10 of the 22 cases, the association between political and particular social trust is stronger than that between political and general social trust. Therefore, as social capital theory would have it, there is a close and positive correspondence between social and political trust at the individual level in all countries, but in some countries particular trust is a more important correlate than general trust. These results are not consistent with the incompatible model of trust, and seem to fit the conditional model better than does the compatible model. Nevertheless, the strong association between particular social and political trust is unexpected.⁷ It also seems from Table 3 that all three forms of trust are generally higher in wealthier and established

⁷ At the aggregate level, there are also strong positive correlations between all three types of trust, with Pearson's r 's of 0.88, 0.71, and 0.58 between particular and general, particular and political, and general and political trust, respectively. Each of them is significant at the 0.000 level.

democracies, a finding that is consistent with previous cross-national studies (Inglehart, 1997, 1999; Delhey and Newton, 2005; Newton, 2007: 347).

The claim that everyone must trust someone is confirmed by the fact that of the 28,031 individuals giving valid answers, only 31 (0.1%) claimed to have no social trust of any of the six kinds. Similarly, no more than 0.6% professed the strange combination of general but not particular trust, a finding that is consistent with hypothesis 6. It may be that 0.1% and 0.6% figures are noise created by interviewer error, miscoding, or failure on the part of those interviewed to understand or hear the questions.⁸ Particular trust is the normal position for nine out of ten people in democratic countries, where 92% express high particular trust (score 2.6 or more on the particular trust index). It is virtually impossible to develop a sense of general trust in the absence of particular trust, but particular trust is not automatically associated with general trust. No less than 99% of those with high general trust have high particular trust, whereas only 45% of those with high particular trust also have high general trust. This combination of figures is consistent with the conditional model, but not with the compatible model or the incompatible model. Nor are the figures consistent with the social psychology school claiming that there is a personality type for whom trust is a core characteristic. It seems that people choose where to place their trust, distinguishing between those close to them (family, neighbours, and those they know well) and those who are not (members of other nations, religions, and those they have just met). Trust is not a general personality characteristic, but something involving choices and distinctions, a suggestion that fits the conditional model.

There is a similar asymmetry between social and political trust, in which the great majority of those with political trust are socially trusting, but only one third to 40% of those who are socially trusting are also politically trusting. This also suggests that social trust, either particular or general, is a necessary but not a sufficient cause of political trust. This also suggests that social trust conditions political trust, although it also indicates an unexpectedly important role for particular trust.

In the next stage of the analysis, we use multi-level modelling in order to put the associations between different forms of trust to a more rigorous test and to estimate the effects of individual and contextual variables on them.

Multi-level analysis

A reading of the already voluminous literature on trust suggests a fairly short and consistent list of individual variables associated with it, namely membership of voluntary associations, education, church attendance, age, gender. For political

⁸ In some ways, cross-tabulations tell us more about the associations between different kinds of trust than correlations, but they consume far more space. For the cross-tabulations, see the authors' paper presented to the ECPR General Conference, Potsdam, September 2009 (<http://www.ecprnet.eu/default.asp>).

trust, we can add political identity and political interest.⁹ The list of contextual variables covers corruption, ethnic heterogeneity, social equality, and various measures of democratic development, durability, and performance.

Individual variables

Associational membership. The enormous importance attached by writers from de Tocqueville to John Stuart Mill to modern studies of social capital, civil society, and voluntary activity should make this a particularly strong determinant of both social and political trust. However, recent summaries of the very large and growing literature on voluntary associations and trust reveal very different, inconclusive, and sometimes contrary findings (Uslaner, 2002; Stolle, 2007: 667–669; Hooghe, 2008: 568–593; Rossteutscher, 2008: 216–224; Rothstein and Stolle, 2008a,b: 277). The relationship between trust and voluntary activity remains an important part of the trust puzzle.

Education. As Uslaner (2008a: 108) observes, ‘virtually every study of generalized trust, in every setting, has found that education is a powerful predictor of trust’.

Gender and age. Gender and age have been included as standard control variables in most trust studies, although their effects are usually small and variable. Women are sometimes less trusting than men, and the old sometimes more trusting than the young, but this pattern varies over time and from one country to another (Newton, 1999: 182–183; Whiteley, 1999: 34–35).

Church attendance. As a proxy for conservative value orientations, church attendance has proven to be positively linked with political trust (see, e.g. Zmerli, 2004).

Political interest and identity. Social trust may be more strongly associated with social variables compared with political trust, which is more closely related to political variables, especially political interest, partisanship, and support for the ruling party or parties, and the left–right scale (Newton, 1999; Newton and Norris, 2000; Rothstein and Stolle, 2008b: 282–283). Unfortunately, left–right, partisanship, and government support are either not available in the World values data or else produce a large number of missing cases, and therefore only political interest can be included as an independent variable.

Contextual variables

Homogeneity and ethnic fractionalization. Social heterogeneity is often argued to be a cause of low trust (Helliwell, 1996; Knack and Keefer, 1997; Hero, 1998, 2003; Alesina and La Ferrara, 2000; Glaeser *et al.*, 2000; Zak and Knack, 2001;

⁹ The ‘mean world’ effect of the mass media should also be included, but it is difficult to test World Values using the World Values file and there is a large amount of missing data for our 22 countries.

Costa and Kahn, 2003; Eisenberg, 2006). The indicator used here is the Alesina and La Ferrara index of ethnic fractionalization (2002).

Corruption. Corruption in public life is also argued to be a cause of low trust (Svensson, 1998; Alesina *et al.*, 1999; Annett, 1999; Easterly, 2000; Uslander, 2005).

Democratic quality and durability. The better established and developed a democratic system, the more likely it is to sustain comparatively high levels of social and political trust (Dunn, 1993; Putnam, 1993: 111–115; Anderson and Guillory, 1997; Brehm and Rahn, 1997; Inglehart, 1999; Newton and Norris, 2000: 70; Booth and Richard, 2001: 55; Paxton, 2002). This study uses the duration of democracy and the *Economist* quality of democracy index as its measures.

Government effectiveness and performance. The more effectively and impartially a political system performs for its citizens, the more likely it is to generate high levels of political trust and to sustain high levels of social trust (Knack and Keefer, 1997: 1275–1276; Tyler, 1998; Levi and Stoker, 2000; Uslander, 2002: 223–229; Delhey and Newton, 2005; Rothstein and Stolle, 2008a, b). Three World Bank indicators are used, measuring government effectiveness, rule of law, and regulatory quality.

Equality and inequality. Previous research shows social and economic equality to have a positive association with social and political trust (Putnam, 2000: 354–361; Warren, 2004: 143; Delhey and Newton, 2005; Uslander, 2008a: 113). The indicator used here is the Gini index.¹⁰

In addition, we intend to scrutinize whether and to what extent the inter-relationships between our three types of trust are affected by country-specific variations of the contextual variables. For this purpose, we create cross-level interactions and include them in the multi-level models.

Tables 5, 6 and 7 present multi-level analyses of each type of trust at the individual level. Since the macro variables create problems of colinearity, each table presents them separately. Each set of tables includes both macro and micro measures of the other two types of trust as independent variables in order to test for their aggregate ('rainmaker' effects) and individual level effects on other types of trust.¹¹ Each set of tables includes both fixed effects based on the cross-national consistencies in the pooled individual-level data for 22 countries and cross-level interactions.

Together, the multi-level tables present a rich collection of statistics, from which we may draw six general conclusions. First, the numerous significant cross-level interaction effects show significant country variations, but the fixed effects also show

¹⁰ The details and sources of macro and micro variables are provided in Appendix 1.

¹¹ Macro variables are not included in the first two columns where only the effects of cross-level interactions and micro measures are analysed.

Table 5. (Continued)

Fixed effects	b	SE	b	SE	b	SE	b	SE	b	SE
Constant	3.25***	0.02	3.26***	0.02	3.25***	0.02	3.26***	0.02	3.25***	0.02
Contextual level effects										
Years of democracy	0.00	0.00								
Quality of democracy			0.06**	0.02						
Governance effectiveness					0.08**	0.02				
Rule of law							0.07**	0.02		
Regulatory quality									0.10*	0.04
Individual level effects										
Age	-0.01*	0.01	-0.01	0.01	-0.01	0.01	-0.01	0.01	-0.01	0.01
Gender	0.00***	0.00	0.00***	0.00	0.00***	0.00***	0.00***	0.00	0.00***	0.00
Level of education	0.01***	0.00	0.01***	0.00	0.01***	0.00	0.01***	0.00	0.01***	0.00
General trust	0.28***	0.01	0.27***	0.01	0.28***	0.01	0.28***	0.01	0.28***	0.01
Political trust	0.13***	0.01	0.12***	0.01	0.13***	0.01	0.12***	0.01	0.13***	0.01
Active membership	0.02**	0.01	0.02**	0.01	0.02**	0.01	0.02**	0.01	0.02**	0.01
Political interest	-0.01**	0.00	-0.01**	0.00	-0.01**	0.00	-0.01**	0.00	-0.01**	0.00
Church attendance	0.00	0.00	0.00*	0.00	0.00	0.00	0.00*	0.00	-0.00	0.01
Cross-level effects										
Years of democracy × general trust	-0.00***	0.00								
Years of democracy × political trust	-0.00	0.00								
Quality of democracy × general trust			-0.04***	0.01						
Quality of democracy × political trust			-0.01	0.01						
Governance effectiveness × general trust					-0.04***	0.01				
Governance effectiveness × political trust					-0.00	0.01				
Rule of law × general trust							-0.04***	0.01		
Rule of law × political trust							-0.00	0.01		
Regulatory quality × general trust									-0.06***	0.01
Regulatory quality × political trust									-0.00	0.01
Variance components										
Individual level	0.18***	0.00	0.18***	0.00	0.18***	0.00	0.18***	0.00	0.18***	0.00
Contextual level	0.01**	0.00	0.01**	0.00	0.01**	0.00	0.01**	0.00	0.01**	0.00
Deviance		25,423		25,342		25,354		25,349		25,360
Explained variance at level 1 in %		19.6		19.8		19.8		19.8		19.8
Explained variance at level 2 in %		7.2		27.5		30.2		29.0		24.1
N = 21,344										

*** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$; for the coding of the variables see Appendix. Predictors are centred on their grand means. Countries weighted by equilibrated weight ($N = 1000$); explained variances calculated according to Bryk and Raudenbush (1992). The intra-class correlation coefficient based on the empty model indicates that 83.1% of the variance are explained by the first level and 16.9% by the second level.

Table 6. (Continued)

Fixed effects	b	SE	b	SE	b	SE	b	SE	b	SE
Constant	2.32***	0.04	2.33***	0.04	2.32***	0.04	2.32***	0.04	2.31***	0.04
Contextual level effects										
Years of democracy	0.00**	0.00								
Quality of democracy			0.15**	0.04						
Governance effectiveness					0.18**	0.05				
Rule of law							0.17**	0.05		
Regulatory quality									0.25**	0.08
Individual level effects										
Age	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Gender	0.00***	0.00	0.00***	0.00	0.00***	0.00	0.00***	0.00	0.00***	0.00
Level of education	0.03***	0.00	0.03***	0.00	0.03***	0.00	0.03***	0.00	0.03***	0.00
Particular trust	0.50***	0.01	0.50***	0.01	0.50***	0.01	0.50***	0.01	0.50***	0.01
Political trust	0.13***	0.01	0.13***	0.01	0.13***	0.01	0.13***	0.01	0.13***	0.01
Active membership	0.05***	0.01	0.05***	0.01	0.05***	0.01	0.05***	0.01	0.05***	0.01
Political interest	0.04***	0.00	0.05***	0.00	0.05***	0.00	0.05***	0.00	0.05***	0.00
Church attendance	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00
Cross-level effects										
Years of democracy × particular trust	0.00**	0.00								
Years of democracy × political trust	0.00	0.00								
Quality of democracy × particular trust			0.02*	0.01						
Quality of democracy × political trust			0.01	0.01						
Governance effectiveness × particular trust					0.02	0.01				
Governance effectiveness × political trust					0.02*	0.01				
Rule of law × particular trust							0.02**	0.01		
Rule of law × political trust							0.01	0.01		
Regulatory quality × particular trust									0.03*	0.02
Regulatory quality × political trust									0.03*	0.01
Variance components										
Individual level	0.32***	0.00	0.32***	0.00	0.32***	0.00	0.32***	0.00	0.32***	0.00
Contextual level	0.03**	0.01	0.04**	0.01	0.04**	0.01	0.03**	0.01	0.04**	0.01
Deviance	38,185		38,167		38,166		38,163		38,163	
Explained variance at level 1 in %	21.4		21.4		21.4		21.4		21.4	
Explained variance at level 2 in %	45.4		34.1		36.6		37.8		30.2	
N = 21,344										

*** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$; for the coding of the variables see Appendix. Predictors are centred on their grand means. Countries weighted by equilibrated weight ($N = 1000$); explained variances calculated according to Bryk and Raudenbush (1992). The intra-class correlation coefficient based on the empty model indicates that 74.7% of the variance are explained by the first level and 25.3% by the second level.

Table 7. (Continued)

Fixed effects	b	SE	b	SE	B	SE	b	SE	b	SE
Constant	2.31***	0.05	2.31***	0.04	2.31***	0.04	2.31***	0.04	2.30***	0.04
Contextual level effects										
Years of democracy	0.00	0.00								
Quality of democracy			0.14**	0.04						
Governance effectiveness					0.16**	0.05				
Rule of law							0.13*	0.05		
Regulatory quality									0.22*	0.08
Individual level effects										
Age	0.02**	0.01	0.02**	0.01	0.02**	0.01	0.02**	0.01	0.02*	0.01
Gender	-0.00***	0.00	-0.00***	0.00	-0.00***	0.00	-0.00***	0.00	-0.00***	0.00
Level of education	-0.01***	0.01	-0.01***	0.00	-0.01***	0.00	-0.01***	0.00	-0.01***	0.00
Particular trust	0.21***	0.01	0.20***	0.01	0.21***	0.01	0.21***	0.01	0.21***	0.01
General trust	0.12***	0.01	0.12***	0.01	0.12***	0.01	0.12***	0.01	0.12***	0.01
Active membership	0.02*	0.01	0.02*	0.01	0.02*	0.01	0.02*	0.01	0.02*	0.01
Political interest	0.08***	0.00	0.08***	0.00	0.08***	0.00	0.08***	0.00	0.08***	0.00
Church attendance	0.03**	0.00	0.03***	0.00	0.03***	0.00	0.03***	0.00	0.03***	0.00
Cross-level effects										
Years of democracy × particular trust	0.00	0.00								
Years of democracy × general trust	0.00	0.00								
Quality of democracy × particular trust			-0.00	0.01						
Quality of democracy × general trust			0.01	0.01						
Governance effectiveness × particular trust					0.01	0.01				
Governance effectiveness × general trust					0.02	0.01				
Rule of law × particular trust							0.00	0.01		
Rule of law × general trust							0.01	0.01		
Regulatory quality × particular trust									0.02	0.01
Regulatory quality × general trust									0.02	0.02
Variance components										
Individual level	0.29***	0.00	0.29***	0.00	0.29***	0.00	0.29***	0.00	0.29***	0.00
Contextual level	0.05**	0.02	0.04**	0.01	0.04**	0.01	0.04**	**	0.04**	0.01
Deviance	36,292		36,265		36,259		36,266		36,258	
Explained variance at level 1 in %	10.3		10.3		10.3		10.3		10.3	
Explained variance at level 2 in %	9.9		29.6		30.3		22.6		22.2	
N = 21,344										

*** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$; for the coding of the variables see Appendix. Predictors are centred on their grand means. Countries weighted by equilibrated weight ($N = 1000$); explained variances calculated according to Bryk and Raudenbush (1992). The intra-class correlation coefficient based on the empty model indicates that 81.2% of the variance are explained by the first level and 18.8% by the second level.

strong patterns in the pooled individual-level data for the 22 countries. There are, in other words, generally strong consistencies across countries as well as variations between them. Second, the trust levels of a country as a whole have a significant impact on individual levels. Consistent with the rainmaker hypothesis (hypothesis 3), aggregate social trust of the particular and general variants have large and significant impacts on individual levels of social and political trust. This evidence is also supported by the significant cross-level interactions, which reveal that aggregate trust levels impact on the strength and direction of micro level determinants of trust. Third, and following from this point, all three forms of trust form a fairly tight triangle of interdependent relationships, although particular and general social trust are more closely associated with each other than with political trust, again consistent with the conditional model. Fourth, particular trust is not incompatible with either general social trust or political trust, being positively and significantly associated with them at both the aggregate and individual levels, at least in the democratic nations covered in this study.¹² Particular social trust seems to play an important part in creating and sustaining high levels of general and political trust. Fifth, contextual political variables do not make much of a contribution to particular social trust, and they are more important for general and (not surprisingly) for political trust. The overarching, society-wide impact of democratic government, rule of law, government effectiveness, and regulatory quality would seem to have an impact on general trust in unknown others, but less so on particular trust in close and known others. This suggests a slight modification of hypothesis 3 to read that aggregate and institutional macro variables have a stronger impact on general social and political trust than on particular forms of trust.

Conclusion

This study investigates the relationships between particular social trust, general social trust, and political trust. Contemporary research has largely overlooked particular social trust, because it is regarded as being of little importance for modern society or else a damaging influence on it. Interest in the association between general social trust and political trust at the individual level has also been undermined by a series of earlier studies, suggesting that they are weakly and patchily correlated, although more recent work has challenged this conclusion by finding much closer associations. The latest wave of the World Values survey includes a set of questions on all three kinds of trust that makes it possible for the first time to conduct a cross-national study of the associations between particular and general social trust and the associations between political trust and the two types of social trust. The 4-point rating scales of the trust questions also make them more sensitive measures than the 'Yes/No' option attached to the standard social trust question.

¹² Note that a study covering democratic and non-democratic countries would be expected to show high levels of general trust in democracies and high levels of particular trust in non-democracies.

An overview of the literature suggests three different models of trust: the first argues that different kinds of trust are mutually reinforcing and compatible; the second argues, on the contrary, that particular social trust drives out general social trust, and that particular social trust is unlikely to be accompanied by political trust; the third, a modification of the two others, suggests that there is no necessary compatibility or incompatibility of the three types of trust, but that particular social trust should condition the development of general and political trust.

The evidence of the 2005–07 World Values survey is most consistent with the conditional model. Cross-tabulations, correlations, and multi-level analysis of the three types of trust show that they are positively and significantly associated, but in different ways and to varying extents. An overwhelming majority of the population of democratic societies (more than 90%) professes particular trust of one form or another, but less than half are high on general trust, and slightly more than the third are high on political trust. While (of logical necessity) all but a tiny minority (0.6%) of those with a high general trust score are also high on particular trust, fewer than half (45%) of those claiming particular trust also claim high general trust. There is a similar conditionality between social and political trust; almost all of those who are politically trusting have a high score on the measure of particular social trust, but the reverse is not true. It would seem from these results that particular trust is the foundation on which general social trust and political trust are based, but building these forms of trust on the foundations does not inevitably or even generally occur.

The evidence refutes the idea that particular social trust drives out or undermines general social trust, a finding that supports some social capital and social-psychological writing. More than that, it points to the crucial importance of particular social trust as a platform on which general and political trust may be, but is not necessarily, built. This raises the question of who extends one form of trust to another and under what sorts of circumstances.

Conversely, the results are not consistent with the social psychology theory that social trust is a pervasive core personality characteristic – what Glanville and Paxton (2007) call ‘the psychological propensity model’. The evidence shows that individuals do not have a general propensity to trust or not to trust, but that they choose whom and what to trust and combine varying degrees of trust or distrust in different objects.

The evidence is consistent with social capital theory in two significant ways. First, it suggests that there is indeed a significant and positive relationship between general social trust and political trust, and it goes a step further in finding that particular social trust also has an impact on political trust, as it does on general social trust. In sum, there is a strong set of triangular relations between the three types of trust, as some social capital theory predicts. Second, the evidence is consistent with the rainmaker effect, whereby aggregate levels of trust in society have an influence on individual levels – a top-down view of trust and trustworthiness. Similarly, the evidence suggests strong institutional and macro influences

on individual trust levels, including the quality of democracy, government effectiveness, and the rule of law and regulatory quality in society. Here again, it goes a step further in finding that aggregate political trust and the institutions of government have little effect on individual particular trust compared with general social and political trust. This is probably because particular trust, so far as it is based on personal knowledge and close social contact, is less likely to be affected by wider contextual influences that have an impact on society as a whole.

Trust variables apart, other individual-level variables have little impact on the three types of trust. The effects of age, gender, and church attendance are small even when they are significant, while those of education and active membership are barely larger. It is not surprising that education has no association with the measures of particular trust based on personal knowledge and contacts, but most studies have found a strong and enduring connection between education and general social trust, which is not replicated here. And in spite of all the literature on the importance of voluntary associations for social and political trust, the evidence here, as in some other studies, is not particularly convincing. Nor do the aggregate measures of equality or ethnic fractionalization have an impact, although some previous studies have found these to be good predictors of either political or social trust, or both. However, our small national *n* of 22 Polity IV democracies may explain the ‘under performance’ figures for ethnic fractionalization and the Gini index.

Last, the study suggests that particular social trust is a key part of the trust puzzle discussed in the opening section of this paper: it seems to make things possible but not inevitable; it seems to be a necessary but not a sufficient cause of more general forms of social and political trust. At any rate, there seem to be good reasons for devoting more attention to particular social trust in order to understand how and why it may develop into general social and political trust. To this extent, particular social trust may play a significant role in strengthening social integration and democratic stability.

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Appendix 1: Micro and macro variables and their coding

Variable	Coding	Source
Particular social trust. Trust in: family neighbourhood people one knows personally	1 do not trust at all to 4 trust completely	World Values 2005–07
General social trust. Trust in: people one meets for the first time other religion other nationality	1 do not trust at all to 4 trust completely	World Values 2005–07
General social trust. 'Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people'.	1, trust, 0 can't be too careful.	World Values 2005–07
Confidence in institutions: Parliament, government, political parties, justice, civil service, and police	1 do not trust at all to 4 trust completely	World Values 2005–07
Active associational membership	1 active, 0 inactive or no member	World Values 2005–07
Interest in politics	1 no interest to 4 very interested	World Values 2005–07
Church attendance	1 never to 7 more than once a week	World Values 2005–07
Gender	0 male, 1 female	World Values 2005–07
Age in years		World Values 2005–07
Highest educational level	1 no formal education to 9 university-level	World Values 2005–07
Aggregate particular social trust	1 do not trust at all to 4 trust completely	World Values 2005–07
Aggregate general social trust	1 do not trust at all to 4 trust completely	World Values 2005–07

Appendix 1 (*Continued*)

Variable	Coding	Source
Aggregate political trust	1 do not trust at all to 4 trust completely	World Values 2005–07
Ethnic fractionalization index	0 = homogeneous to 1 = heterogeneous	Alesina and La Ferrara (2002)
Gini index	0 (highly equal) to 100 (highly unequal)	Human Development Report 2007/08
Corruption perception index	0 (highly corrupt) to 10 (highly transparent)	Transparency International 2006
Duration of democracy in years	Years counted from ratings 9 and 10	Polity IV project
Government effectiveness	–2.5 to 2.5, higher scores correspond to better outcomes	Worldwide Governance Indicators project
Rule of law	–2.5 to 2.5, higher scores correspond to better outcomes	Worldwide Governance Indicators project
Regulatory quality	–2.5 to 2.5, higher scores correspond to better outcomes	Worldwide Governance Indicators project
<i>Economist</i> quality of democracy index	0 = lowest to 10 = highest quality of democracy	The Economist Intelligence Unit 2006