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Who Trusts? The Origins of Social Trust in Seven Nations

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Abstract

This paper identifies six main theories of the determinants of social trust, and tests them against survey data from seven nations, 1999-2001. Three of the six theories of trust fare rather poorly and three do better. First and foremost, social trust tends to be high among citizens who believe that there are few severe social conflicts and where the sense of public safety is high. Second, informal social networks are associated with trust. And third, those who are successful in life trust more, or are more inclined by their personal experience to do so. Individual theories seem to work best in societies with higher levels of trust, and societal ones in societies with lower levels of trust. This may have something to do with the fact that our two low trust societies happen to have experienced revolutionary change in the very recent past, so that societal events have overwhelmed individual circumstances.

Woher kommt Vertrauen in die Mitmenschen? In diesem Arbeitspapier werden Umfragedaten aus sieben Ländern verwendet, um die Stichhaltigkeit verschiedener Theorien über die Bedingungen für soziales Vertrauen auf der Individualebene zu überprüfen. Nur drei der sechs Theorien erweisen sich als erklärungskräftig. Erstens zeigen jene Bürger großes Vertrauen, die die Gesellschaft als wenig konfliktbelastet und als sicher wahrnehmen. Zweitens gehen gute informelle Sozialkontakte mit Vertrauen Hand in Hand. Und drittens sind die im Leben Erfolgreichen vertrauensvoller als die Verlierer. Die Ergebnisse zeigen darüber hinaus, daß individuenbezogene Theorien offenbar in „high-trust"-Gesellschaften besser funktionieren, während gesellschaftsbezogene Theorien in „low-trust"-Gesellschaften erklärungskräftiger sind. Ein Grund dafür könnte sein, daß die beiden im Sample vertretenen Gesellschaften mit niedrigen Vertrauenswerten postsozialistische Länder sind, so daß die mit dem Zusammenbruch des Staatssozialismus und der Transformation zu Demokratie und Marktwirtschaft verbundenen sozialen Umbrüche individuelle Einflüsse in den Schatten stellen.

Contents

1 Introduction

'Trust is one of the most important synthetic forces within society.' (Simmel 1950: 326)

There is a general consensus among contemporary social scientists that social trust is important, as the small flood of recent publications on the topic shows.[1] The interest in trust covers, unusually in the increasingly fragmented and specialised academic world, sociology, political science, economics, psychology, history, political theory and philosophy, management and organisation studies, and anthropology. Trust, it is said, contributes to economic growth and efficiency in market economics, to the provision of public goods, to social integration, co-operation and harmony, to personal life satisfaction, and to democratic stability and development, and even to good health and longevity. Trust is also at the centre of a cluster of other concepts that are no less important for social science theory than for practical daily life, including life satisfaction and happiness, optimism, well-being, health, economic prosperity, education, welfare, participation, community, civil society, and democracy. And, of course, social trust is a core component of social capital, and is normally used as a key indicator of it, sometimes as the best or only single indicator.

If trust is indeed as important as this, then two questions follow. First, what, exactly, does trust do for society and its individual members? And second, where does it come from? We will not tackle the first question here, concentrating, instead, on the origins of social trust. Our main concern is to provide evidence about what sorts of people express social trust and distrust, and under what sorts of social, economic, and political circumstances do they do so? If we can answer these general questions, then we may have gone some way to solving the problem of the origins of social trust, and, in turn, make some practical suggestions about how this powerful social good might be increased. For this purpose we identify six theories of the origins of trust in this paper, and test their explanatory power in six European and one non-European country. The empirical material is drawn from the Euromodule surveys conducted between 1999 and 2001.

2 Theories of the Origins of Social Trust

There are two broad schools of thought about trust. The first takes the view that trust is an individual property and that it is associated with individual characteristics, either as a core personality trait, or with individual social and demographic features such as class, education, income, age, and gender. The second argues that social trust is a property not of individuals but of social systems. According to this view the study of trust requires a top-down approach that focuses on the systemic or emergent properties of societies and their central institutions.

2.1 Individual Theories

According to a well-developed social-psychological school of thought in the United States in the 1950s and 1960s, social trust is a core personality trait of individuals (see Erikson 1950; Allport 1961; Cattell 1965; Rosenberg 1956, 1957). It is learned in early childhood, and tends to persist in later life, changing only slowly as a result of experience thereafter, especially traumatic experience. According to the social-psychologists, social trust is part of a broader syndrome of personality characteristics that include optimism, a belief in co-operation, and confidence that individuals can resolve their differences and live a satisfactory social life together. Trust and optimism are part and parcel of the same general disposition to the world. Conversely, distrusters are misanthropic personalities who are also pessimistic and cynical about the possibilities for social and political co-operation.

This approach to social trust has been developed recently by Eric Uslaner (1999, 2000), who argues that we learn trust early in life from our parents. His evidence from two American panel studies shows that individual levels of interpersonal trust are among the most stable survey items over time. He also concludes that social trust is not dependent upon the experience of reciprocity. Trusters are not simply paying back good deeds by others, for those who were helped by others when they were young are no more trusting than those who were not helped in this way. To reinforce the point about the social-psychological origins of trust he argues that it is based on two other core personality characteristics, optimism and the capacity to control the world, or at least one's own life. Optimism, he writes, leads to generalized trust (Uslaner 1999: 138). Finally, he argues that subjective measures of well-being are more closely associated with trust than

objective ones related to economic circumstances. In other words, trust is more closely associated with the individual features of personality types and subjective feelings, than with the external circumstances of economic life.

We will refer to the Erikson-Allport-Cattell-Uslaner approach to the explanation of trust as *Personality Theory*. One clear implication of the theory is that social trust will be most strongly associated with other personality variables, especially with measures of personal optimism, and a sense of control over one's own life.

Personality theory is to be distinguished from a second and rather different approach that concentrates on individual variables, but not social-psychological ones. The basic theory here is that while all trust carries risks, it is more risky for the poor than the rich. The poor cannot afford to lose even a little of what they have if their trust is betrayed; the rich stand to lose comparatively less, and they may gain comparatively more from trusting behaviour (Banfield 1958: 110). The general theory is supported to some degree by survey data provided by the World Values Studies and the American General Social Survey which suggests that social trust tends to be expressed by the 'winners' in society, as measured in terms of money, status, and high levels of job and life satisfaction, and subjective happiness (Orren 1997; Newton 1999a: 173; Whiteley 1999: 40-41). 'In virtually all societies', writes Putnam (2000: 138) '"have-nots" are less trusting than "haves", probably because haves are treated by others with more honesty and respect.' In contrast distrust is more common among the losers – those with a poor education, low income, and low status, and who express dissatisfaction with their life. Distrust also tends to be expressed by victims of crime and violence, as well as the divorced. According to this view, social trust is the product of adult life experiences; those who have been treated kindly and generously by life are more likely to trust than those who suffer from poverty, unemployment, discrimination, exploitation, and social exclusion. Inglehart (1999) emphasises the close connection between social trust, happiness, and well-being, and so does Putnam (2000: 332-5).

This sort of interpretation of trust is consistent with Patterson's (1999: 187-91) analysis of the relationship between trust, class and race in the USA. He finds that the poorest in America are far less trusting than the richest, and that irrespective of income, Afro-Americans are the least trusting ethnic group (see also Putnam 2000:138). Patterson concludes (1999: 190) that 'anxiety and insecurity are clearly the most powerful forces driving distrust.'

In this paper, therefore, we distinguish between social-psychological theory, which emphasises childhood socialisation and core personality characterstics, and what we will term *Success and Well-Being Theory*, which stresses adult life experiences. The latter can be tested by analysing the relationship between social trust and a set of individual variables including income, social status, education, satisfaction with life, job satisfaction, happiness, and anxiety.

2.2 Societal Theories

The second major approach towards trust is to see it as a property of society rather than individuals. Trust is not so much a core personality trait of individuals, but individuals participate in, contribute to, or benefit from a trusting culture, or from social and political institutions that encourages the development of trusting attitudes and behaviour.

According to this approach responses to the standard question on trust ('Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?') can be interpreted as the citizen's estimation of the trustworthiness of the society around them (Putnam 2000: 138; Newton 2001: 203-4). Trust, the theory goes, is the product of experience (Hardin 1993) and we constantly modify and update our trustful and distrustful feeling in response to changing circumstances. As a result, levels of trust reported in social surveys are a good indicator of the trustworthiness of the societies in which respondents live; the trust scores tell us more about societies and social systems, than about the personality types living in them (Putnam 2000: 138). There is some experimental evidence showing that countries with high trust scores in the World Values surveys actually have more trustworthy and honest citizens (Knack and Keefer 1997: 1257).

This sort of interpretation of trust gains a degree of *prima facae* plausibility when we see that countries like Brazil, Peru, the Philippines, Turkey, and Venezuela are at the lowest end of the international trust scale, while Norway, Sweden, The Netherlands, Canada, Finland, Ireland, and Iceland are at the other end (Inglehart 1999: 102). Whatever the distribution of trust scores of individuals within societies, richer and/or more democratic nations are more trusting than poorer and less democratic ones. The point is reinforced, if anything, by the fact that levels of social trust in West Germany rose steadily from 9% in 1948 to 45% in 1993 (Cusack 1997).

If social trust is based upon the social circumstances in which people find themselves, it should be statistically associated with societal variables. However, there is little agreement about what variables are important. The classic view is that a society that is well founded upon a large and varied range of voluntary associations and organisations is likely to generate high levels of social trust. The theory, dating back to de Tocqueville and John Stuart Mill, is central to most recent discussion of social capital (Putnam 2000). We learn to participate by participating, and by participating in regular and close contact with others on a voluntary basis we learn 'the habits of the heart' (Bellah et al. 1985) of trust, reciprocity, co-operation, empathy for others, and an understanding of the common interest and common good. The most important form of participation, from this point of view, is direct, face-to-face, and sustained involvement in voluntary organisations in the local community. This theory is referred to as the *Voluntary Organisations Theory*. It can

be tested by using survey data to analyse the statistical association between levels of social trust on the one hand, and membership of and activity in voluntary associations, on the other.

Voluntary organisations theory has been criticised on both theoretical (see, for example, Cohen 1999: 219-23; Newton 2001) and empirical grounds. Empirically there is a certain amount of evidence to support the theory (see for example, Brehm and Rahn 1997; Stolle and Rochon 1999: 202-3, 2001) but often it is weak and patchy and fails tests of statistical significance (Torcal and Montero 1996; van Deth 1996; Dekker and van den Broak 1995; Knack and Keefer 1997: 1281-3; Torcal and Montero 1999: 177; Billiet and Cambre 1999: 255; Newton 1999a, 1999b; Whiteley 1999: 40-41; Booth and Richard 2001: 50). Uslaner (1999: 145-6) states bluntly that we do not learn trust from people in civic associations. Hooghe (2000: 5) is also clear on the point: 'There is no indication whatsoever that interaction with other group members would automatically lead to the development of a more socially oriented value pattern, to a rise in trust levels, or to abandoning prejudices.' In spite of its long and distinguished intellectual lineage, therefore, the theory that membership of voluntary associations generates social trust finds rather little supporting evidence in modern survey research.[2]

Some have argued that no matter how important formally organised voluntary associations may be in some respects, what matters from the point of view of social trust is direct participation in the social networks of everyday life (Yamagishi and Yamagishi 1993). For most people this means the informal relations of friends and family in the community and the neighbourhood, and participation in social relations at the place of work. It also means *ad hoc* and sporadic participation in the loose networks of people who gather in local bars and pubs, at work, in book-reading groups, and support groups, and among those who form car pools, baby sitting circles, and local action groups that tend to cluster around schools, community centres, and residential areas (Gundelach and Torpe 1996: 31; Parry et al. 1992: 86-87; Foley and Edwards 1997). It has been suggested that such forms of civic engagement and social participation are increasing in modern society (Verba, Schlozman and Brady 1995: 68-91; Schudson 1996: 17-18). This approach, known here as *Networks Theory*, can be tested by analysing the association between trust and involvement in informal social networks.

Personal social networks were particularly important in the Communist systems of east and central Europe (Kolankiewicz 1994: 149-51; Sztompka 1996; Rose 2001). People in these countries developed circles of private and unofficial contacts among people who could help each solve the daily problems of scarce resources and services, but within a wider society that was pervaded by general suspicion and mistrust created by the state. As a result the form of social trust developed in Communist societies was particularistic and limited, compared with the more generalised trust typically found in the west. As Rose (1994: 29) succinctly puts it, 'East Europeans know those whom they trust, and trust those whom they know.' In this case, network theory may be rather better at explaining social trust in ex-Communist systems than western ones, or at least among the older generation in ex-Communist countries.

A different form of societal theory of trust concentrate on the characteristics of local communities, rather than the informal social networks of people within them. Some research finds that the smaller the urban unit, the higher trust is likely to be (House and Wolf 1978). Putnam (2000: 205) concludes that "… residents of small towns and rural areas are more altruistic, honest, and trusting than other Americans. In fact, even among suburbs, smaller is better from the social capital point of view.' Knack and Keefer (1997: 1283), however, find no cross-national evidence to suggest any connection between social trust and either urbanization, or population density. If the community characteristics emphasised by *Community Theory* are important one might expect trust levels to correspond with such measures as city size, satisfaction with the community, and a sense that the community is a safe place to be at night.

Community theory is different from explanations of trust that focus on the characteristics of whole countries and nation state (see, for example, Pharr, Putnam and Dalton 2000: 26-7). Many have argued for this sort of 'top-down' approach, often as a compliment rather than an alternative to 'bottom'up' approaches (Levi 1996; Tarrow 1996; Foley, Edwards and Diani 2001; Maloney, Smith, and Stoker 2001: 96). For example, wealthier nations, and those with greater income equality, have higher levels of trust than poorer and more inegalitarian ones (Ingelhart 1999; Knack and Keefer 1997:1279). Democracies are more trusting than non-democracies (Booth and Richard 2001: 55; Newton 2001), countries with universal welfare benefits are more trusting than those with selective welfare systems (Rothstein and Stolle 2001), and countries with independent courts and institutional controls over the power of political executives are more trusting than others. There is also evidence that social trust is higher in societies with lower levels of social polarization, as measured by income equality and ethnic homogeneity (Knack and Keefer 1997: 1282-3). This suggests that societies with cleavages between class, income, or ethnic groups are likely to have lower levels of social trust.

This top-down, total society approach to trust is named *Societal Theory* here. It will be tested by relating variations in trust with reported feelings about the intensity of conflict in society (conflict in general and more specifically between income groups, class, and nationals and immigrants), and about political freedom, public safety, and satisfaction with democratic institutions. These are not objective measures of conflict or freedom, such as Knack and Keefer (1997) use as their measures of polarization, but rather respondents reported feelings about them in their country, which is another way of measuring the degree of polarisation in society. Usually objective, aggregate variables are used as indicators of social conflict and freedom, but we also know that populations assess such circumstances in very different ways. Some perceive strong conflict within their society, others do not. In this research we use citizen's subjective assessments as our indicator of social conflict and other societal conditions.

In the empirical work that follows we will use three demographic variables as controls – age, education, and gender – because all three seem to have a bearing on trust. Various studies have found evidence of life-cycle or cohort effects, or both (Patterson 1999: 182; Torcal and Montero 1999: 174-81; Whiteley 1999: 40-41; Putnam 2000: 140-1; Newton

2001), although the patterns are not always consistent or strong. It is possible that social trust follows a U-curve, with the young ("never trust anyone over 30") and the old and vulnerable having higher levels of distrust.

Patterson (1999: 173) finds that women are sometimes significantly less trusting than men in the USA, although gender makes little difference in other western countries (Whiteley 1999: 41; Newton 2001). It is not clear why gender should make any difference to trust, but perhaps gender discrimination makes women less socially successful and satisfied with their life than men, or perhaps women with dependent children are inclined to be cautious and distrustful as a result of their responsibility for protecting their off-spring. Education has a great effect on social trust in the USA (Putnam 2000), and in some other, but by no means all, western countries.

Table 1 summarises the theoretical argument so far. It lists the six major theoretical approaches, and the variables that may be used as measures, indicators, or correlates to test them. We will discuss the variables in the section that follows on methodology, but meanwhile we should make some further important comments about the theories.

None of these different theories are mutually exclusive or incompatible. In the first place, some of them are concerned with different types and levels of explanation: some try to explain variations between individuals, others variations between countries; some may be better suited to explaining variation at a given point in time, some to explaining

Table 1: Six theories of trust and related variables

Theories	**Variables**
Individual	
Personality theory	Optimism, life control
Success and well-being theory	Income, social status, life satisfaction, job satisfaction, happiness, anxiety
Social	
Voluntary organization theory	Membership of voluntary associations
Social network theory	Networks of friends
Community theory	City size, satisfaction with the community, community safety
Societal theory	Social conflicts, satisfaction with democratic institutions, political freedom, public safety

changes over time.[3] In the second place, while different theories may contribute to explaining the origins of social trust, either separately or in combination, they may also have different effects in different circumstances. And in the third place both the theories and their indicators overlap to some extent. For example, optimism, anxiety and trust may be treated as aspects of the same personality syndrome. However, while social-psychology theory treats them as the long-lasting products of early socialisation, other theories see them as the product of adult experience. Our intention in identifying six rather different theories is not to pit one against the other, but to see which, if any, seems to fit the facts better than others.

An example of how different theories might fit different circumstances is provided by Uslaner (1999: 132-3), who observes that individual trust correlated more strongly with voting turnout in the USA in the 1992 than in the 1964 election. In the earlier year, about half the population expressed trust in their fellow citizens, and it could be that trust at this high level pervades the whole of society to such an extent that it has a contextual effect on all citizens, whether they had a personal propensity to trust or not. Hence all sorts of people turned out to vote in 1964, with rather little difference according to social trust. By 1992 trust had fallen to less than 40% in the USA, and was continuing to decline. At this point, Uslaner suggests, individual trust mattered in the sense that trusters were significantly more likely to vote. He concludes (Uslaner 1999: 133) that 'individual trust matters more when there is less social capital, while contextual trust counts more when people have greater faith in each other.'

This raises the possibility that in low trust societies individual level variables will be more closely associated with social trust, than in high trust societies, where societal variables of a contextual nature are likely to be more important.We cannot test this proposition rigorously with only seven countries, but nonetheless, we can rank our nations according to their level of trust, to see if there is a shift in the relative strength of individual and societal variables as the level of social trust changes.

2.3 Problems of Cause and Effect

The study of trust is benighted by the problem of cause and effect. Do people become more trusting as a result of close and sustained interaction with others in voluntary organisations? Or is it, on the contrary, that trusting people join voluntary associations and get involved with their community, leaving distrusting ones at home to watch the television? Do people develop higher levels of trust because life has been kind to them, or is life kind to them because they are trusting? Many have pointed out the severe chicken-and-egg problem with most theories and empirical findings about of trust, and we are unable to make much progress with the problem here. But it is worth making two important, if preliminary, observations about cause and effect.

First, in this paper we look for close associations between a varied set of independent variables and our measure of social trust. If we find such associations, then we can begin to worry about which is cause and which effect. If we do not find close associations, then there are no problems of cause and effect to ponder on in the first place. Second, there is no general rule about how to determine the direction of causal relations, at least when one is dependent upon cross-sectional survey data. Each particular combination of figures has to be examined independently to see what causal relations are plausible and implausible. Suppose, for example, that we were to find no relationship between city size and distrust, then we would not bother about cause and effect. But if we were to find a strong association then it would be rather less plausible to argue that large cities attract distrustful people (although this may happen), than that large cities generate a sense of distrust because of their crime, impersonal relations, market relations, competition for economic success, and pockets of extreme poverty side-by-side with extreme affluence.

3 Empirical Test of Trust Theories

3.1 Methods

The empirical analysis in this paper is based upon data collected in the Euromodule surveys conducted in Germany, Hungary, Slovenia, South Korea, Spain, and Switzerland between 1999 and 2001.[4] East and West Germany are kept separate because of different socialisation experiences and living conditions. This gives us seven cases, and for the sake of simplicity and brevity we refer to these as 'countries' or nations, although actually, of course East and West Germany are one nation.

The selection of the countries for the Euromodule survey was not a theoretically guided one. They happen to be the countries that have participated in the Euromodule project so far, this being an international survey dedicated to comparative welfare research and coordinated at the Social Science Research Centre Berlin (WZB). Basically it is a survey concerned with individual living conditions, subjective well-being, and the quality of society. The surveys are representative of citizens aged 18 and over, with sample sizes between 1,000 and 2,500, except in East Germany, which had a sample size of 473. Interviewing was face to face, except in Switzerland where telephone interviews were used. Full details of the Euromodule, including the master questionnaire and study descriptions are in Delhey et al. (2001).

The strengths of the survey for research on trust are considerable. First, it covers a range of countries in both west and central Europe, and South Korea as a non-European case, and presents us with a spread of trust scores from South Korea and Switzerland with 60% and 43%, to Hungary and Slovenia with 18% and 14% (see Table 2). The South Korean figure may be a little high because the sample was limited to under 65 year olds (in contrast to the other countries where all ages were sampled). But since we are primarily interested in within country variations, this one difference in sampling will not effect the results unduly, especially since we did not find variations in social trust were related to age.

The Swiss figure is fairly typical of a group of relatively high trust nations in the 1990s, including the USA, Australia, Austria, Spain, Britain, Iceland, West Germany, Japan, Ireland, and Finland. The Slovenian figure falls at the lower end of the international trust scores, alongside South Africa, Nigeria, Romania, Poland, Argentina, Estonia, Lithuania, and Venezuela (for comparative trust figures see Inglehart 1999: 102).

Table 2: Trust in 7 countries

	Most people can be trusted (%)	Valid N
South Korea	60	1,000
Switzerland	43	984
East Germany	35	473
West Germany	32	1,888
Spain	28	2,381
Hungary	18	1,422
Slovenia	14	972

Data: Euromodule 1999, 2000, 2001.

There are big differences between the countries in terms of modernisation, wealth, and political history. South Korea also brings cultural and religious differences into the study. In short, large national differences between our seven cases means that we have the sort of most-dissimilar systems research design that is ideal for theory testing.

Second, the Euromodule survey brings together a broad range of questions not usually combined in research on trust, and which enable us to test the theories outlined above. The questionnaire covers a variety of subjective and objective measures, as well as individual, communal and societal ones. It asks questions about social networks and membership of voluntary organisations, as well as about social conflict and national social and political conditions. In particular, it contains a long and varied battery of questions about life satisfaction, job satisfaction, happiness, optimism, and anxiety that are not often found alongside trust questions in other surveys. This enables us to examine the association between trust and subjective well-being more systematically than before. If social trust is associated with satisfaction and well-being then it has a better chance of showing itself in this study than almost any other.

At the same time, the Euromodule data available to date covers only seven countries, which is far too few for cross-national comparison. Consequently, we will stick mainly to the sort of individual level analysis (within country variations between individuals) for which the survey is ideally suited. In addition, the questionnaire includes only one item on social trust, rather than the three-item Rosenberg scale. On the other hand, a great deal of social trust research is based on World Values Survey, which also rely on the same, single question, so at least the Euromodule is not disadvantaged to any great extent in this respect.

In this study social trust is measured with the standard survey research question:

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

Those who say that most people can be trusted are given a score of 1, and those who say you can't be too careful are scored 0. Since this measure is a discrete or binary one, and since the assumptions of ordinary least square regression do not apply (Whitehead undated), logistic regression methods are used instead.

As many have observed before us, trust is a tricky concept. (Barber 1983; Baier 1986; Gambetta, ed., 1988; Hardin 1991, 1993, 1996; Misztal 1996; Seligman 1997; Braithwaite and Levi, eds., 1998; Warren 1999), but we do not need to go into detail about its subtleties and complications here. It is sufficient to offer a working definition of trust as the belief that others will not, at worst, knowingly or willingly do you harm, and will, at best, act in your interests. This is a close approximation to Hardin's (1998: 12-15) succinct definition of trust as 'encapsulated interest', to Warren's (1999: 311) observation that trust involves shared interests or lack of malice, and to Gambetta's (1988: 217) that trust involves the belief that others will perform in a way that is beneficial to us, or at least not detrimental. It is, however, important to emphasise that this paper is concerned with social trust – that is inter-personal or horizontal trust between citizens, rather than the political trust between citizens and political elites, or citizen confidence in political institutions. Many have written about the relationship between social and political trust, and between social trust and democracy, and some have argued that the relationship between them is a complex and indirect one. In this paper, however, we make no assumptions about political trust, or about the relationship between social and political trust.[5]

The analysis of the data proceeds through three main steps. In each case the Euromodule survey data was not pooled, but examined country by country. In the first step we sorted a set of thirty-four independent variables (see Appendix 1) according to their relevance to the six main theories of the origins of social trust discussed above. Some of these variables were themselves composites of a bank of as many as fourteen questionnaire items. Even so, with thirty-four variables it was necessary to reduce the number. This was done by selecting a few of the strongest or 'winning' variables from the longer lists. Since the interest is, in the first instance, to compare the power of different theories of trust, the final list was limited to no more than three variables for each of the theories, plus the socio-demographic controls. The criteria for the selection was (a) the strength and significance of bivariate correlations between trust and the independent variables, and (b) the combination of variables in the final regressions that have the strongest association with trust. Those selected for the final regressions appear in Tables 4b to 10b (see Appendix 2).[6]

The second step of the analysis consisted of running a series of country-by-country multiple-logistic regressions, in order to get a first impression of the statistical power of blocs of variables. For this purpose the maximum and minimum influence of each bloc of variables was computed. This is because the 'real' impact of each bloc is not easy to ascertain. Not only are some of the theories mutually reinforcing, rather than competing or mutually exclusive, but the operationalisation and measurement of them tends to be overlapping and reinforcing to some extent, as well. For example, those with high social status tend to report higher levels of optimism, and higher levels of optimism are also associated with more favourable views of social conditions. Therefore, the maximum influence of any given variable on its own is likely to be an over-estimation of its real effect, to the extent that it shares its influence with other closely associated variables. Correspondingly, the minimum influence of any given bloc of variables is likely to be an under-estimation, to the extent that it attributes common variance to other variables. In other words, the real impact of any given bloc of variables is likely to be somewhere between the minimum and the maximum.

Table 3 summarises the results of the second step of the analysis for each of the seven countries. The pseudo R square can be interpreted as a measure of the strength of the association between social trust and the independent variables. For example, societal conditions in Slovenia seem to play a crucial role for trust. The minimal influence (R square = 0.12) is even higher than the maximum (0.10), which means, in turn, that societal conditions improve the strength of their association with trust, when all the other blocs of variables are entered into the regression. In contrast, socio-economic status has a substantially higher maximum (0.09) than minimum score (0.02), which suggests that a large amount of common variance may be attributed to other variables.

The third and final step in the analysis involves running stepwise logistic regressions on social trust for each country. Since our aim is to determine which type of variable explains trust best, we have taken the most cautious, the most demanding, and the most conservative step of picking blocs of variables according to their minimum influence.[7] For each country, the stepwise logistic regression is built up by entering one bloc at a time, starting with the one with the largest minimum influence.

Table 3: Maximum and minimum influence of blocs of variables on trust: summary table

Country	Bloc influence*	A: Demographic characteristics	B: Personality	C: Success and well-being	D: Social networks	E: Voluntary organization	F: Community	G: Societal conditions
South Korea	max	.01	.01	.05	.04	.01	.02	.02
	min	.01	.00	.03	.03	.00	.01	.01
Switzerland	max	.04	.06	.07	.03	.05	.04	.04
	min	.01	.01	.02	.01	.03	.01	.01
East Germany	max	.03	.08	.15	.08	.05	.08	.11
	min	.03	.03	.07	.04	.04	.03	.03
West Germany	max	.02	.03	.04	.06	.02	.01	.05
	min	.00	.01	.01	.04	.00	.00	.03
Spain	max	.03	.03	.07	.06	.01	.01	.02
	min	.00	.00	.03	.03	.00	.00	.02
Hungary	max	.06	.04	.05	.05	.02	.04	.05
	min	.02	.01	.01	.03	.02	.01	.04
Slovenia	max	.05	.03	.09	.04	.01	.06	.10
	min	.01	.04	.02	.04	.01	.04	.12

Notes: *Nagelkerke' s R square.
Entries are results from logistic regressions, dependent variable trust = yes.

Data: Euromodule 1999, 2000, 2001.

3.2 Results

The results of the final regressions are shown in Tables 4a and 4b (Slovenia) to 10a – 10b (South Korea) (see Appendix 2). We will not discuss each country in detail, since we are mainly interested, in the first instance, in cross-national patterns, but will briefly compare the two European countries with the lowest and highest trust scores, Slovenia and Switzerland, in order to explain the figures, before looking at the overall picture. Table 4a shows that five blocs of variables contribute significantly to the explanation of trust in Slovenia. The two strongest are clearly societal conditions and community characteristics, but social net-works, personality characteristics, and success and well being are also significant. Individual demographic characteristics and membership of voluntary organisations are insignificant.

Table 4b presents the Slovenian results in greater and more revealing detail. What is most notable is that all three of the societal conditions variables are significant, as are two of the community characteristics. It seems clear that what matters for social trust among Slovenians is how people feel about social conflict and political equality, and how they see their local community. Nothing else seems to matter much, if at all.

This national picture is very different from that presented by Switzerland (Tables 9a and 9b). Here significant variables are scattered over six of the seven blocs, and in the final regression societal and individual, as well as subjective and objective variables make a significant contribution. In contrast, the bloc of variables that is most important in Slovenia, societal conditions, has a relatively modest impact in Switzerland. However, the two countries are similar in that social networks and success and well-being have a modestly strong association with social trust. In sum, a comparison of Slovenia and Switzerland suggests some patterns, but they are not particularly clear or strong ones.

The question is, however, whether there are strong and clear patterns across all six nations? To tackle this question Table 11 reduces the complexity of the final regression models to their most basic simplicity, showing the contribution of each of the seven blocs of variables for the seven countries. The table suggests the following conclusions:

1. Three theories do well in explaining trust; societal conditions, social networks, and success and well being. In each country one or more of these blocs exert the strongest influence. In comparison, the other theories generally do rather little, if anything, for trust.

2. Perceived societal conditions, (conflict between the rich and poor, management and workers, and nationals and immigrants, freedom to participate, job opportunities, and satisfaction with public safety, and with democratic institutions) are most strongly associated with trust. In four of the seven countries, societal conditions have medium to very strong effects, and in two of them they are the strongest.

3. Personality theory, community theory, and voluntary organisations theory do rather poorly, having a low to medium strong association with trust in a few cases, but none at all in others.

4. There is little evidence that membership of voluntary organisations is associated with trust. It is rather weakly significant in only three countries. In contrast, being involved with informal networks of friends is an significant correlate of trust in all seven countries.

5. Demographic characteristics (gender, age, and education) are not closely associated with trust. Only in Switzerland is gender significant, and here, as in the USA (Patterson 1999: 173-4) women are less trusting then men.

6. The hypothesis that the relative impact of societal and individual variables varies in low and high trust societies is given some degree of support, although only seven cases is not enough to draw any firm conclusions. Nevertheless, there seems to be a shift in the relative strength of variables as one moves from the lowest trust societies to the highest. In South Korea, Switzerland, and East Germany, personal success and well-being are the strongest sources of trust. In the lower trust societies either social networks or societal conditions seem to be stronger. In Hungary and Slovenia, especially, social theories are stronger than individual ones.

7. Trust is not well explained by any bloc of variables or any combinations of blocs. Only two countries have 'very strong' entries, the number of 'not significant' and 'low' entries greatly outnumbers the 'strong' and 'very strong' entries, and the value of the pseudo R square for the total model is normally less than .18. Only in East Germany (.38) and Slovenia (.30) is the pseudo R square substantial.

Table 11: Strength of independent variables on social trust: summary table

	High trust societies						Low trust societies
% trust	60	43	35	32	28	18	14
	South Korea	**Switzer-land**	**East Germany**	**West Germany**	**Spain**	**Hungary**	**Slovenia**
Societal conditions	low	low	strong	medium	low	**MEDIUM**	**VERY STRONG**
Social networks	low	low	medium	**MEDIUM**	**STRONG**	medium	low
Success and well-being	**MEDIUM**	**MEDIUM**	**VERY STRONG**	low	medium	n. s.	low
Personality	n. s.	low	medium	low	n. s.	n. s.	low
Community	n. s.	low	n. s.	n. s.	n. s.	low	strong
Voluntary organizations	n. s.	medium	medium	n. s.	n. s.	low	n. s.
Demographic characteristics	n. s.	low	n. s.	low	n. s.	low	n. s.

Classification: Very strong influence = Nagelkerke's R square for bloc > .099;
strong influence = Nagelkerke's R square for bloc > .066;
medium influence = Nagelkerke's R square for bloc > .033;
low influence = Nagelkerke's R square for bloc <= .033;
n. s. = not significant.
Bold capital letters: strongest influence in the country.

These conclusions are based on a comparison of blocs of variables associated with different theoretical approaches. If we shift the focus of attention from blocs of variables to individual variables (see Tables 4b – 10b) some strong conclusions emerge.

1. Contrary to the social-psychological theories, optimism and being in control of ones own life is rarely associated with social trust. It appears in the country regressions in only one case (Switzerland), and then only weakly. Our results show that optimism and control are associated with success and well-being, but the latter are more generally and more strongly associated with trust. This, in turn, suggests that it is not early socialisation, but adult experiences that are important for trust.

2. Subjective measures of success and well-being (life satisfaction, satisfaction with standard of living, low anxiety) do better than objective ones (standard of living, occupation, and income). In particular, anxiety is associated with distrust. In other words, while those who are satisfied with life are not necessary trusting, but those who are anxious are often distrustful.

3. There is little support for the claim that the educated are more trusting. Education is significant in only two of the country regressions. Given the strength of the association between trust and education in most studies this is a surprising finding.

4. More positively, two sorts of variables seem to be most consistently associated with trust – conflict and safety, and a network of friends. Versions of the societal conflict measures are significant in all the country regressions. Sometimes two or more different indicators of social conflict are significant in the same regression. In addition, public safety, and community safety at night also appear in five of the six regressions. There may well be a good reason for both conflict and safety variables appearing in the regressions together, if we assume that low conflict societies are relatively safe ones. At any rate, trust appears to be greater in societies where people believe that social conflicts are not acute, and where they believe that levels of public safety are high.

5. The second positive finding concerns the fact that one or other of the social networks measures appears in all of the seven country regressions, most usually with strong or fairly strong statistical significance. Sometimes two social network variables are significant in the same regression. It was suggested earlier that close networks of personal friends might be more important in the ex-communist societies, but this appears not to be the case. The 'friends' measure is more significant in West Germany than in Hungary and Slovenia, and not much stronger in East Germany than in West Germany. It is possible that the personal networks are more important for the older age groups in central Europe who came of age under Communism, and less important for younger, post-Communist age groups. This does not appear to be the case. In neither Hungary, nor East Germany, nor Slovenia is there any strong or consistent association between age and trust. Therefore, we draw the conclusion that informal social networks are important for social trust, in western countries just as much as in pre- and post-Communist central European countries.

4 Conclusions

The literature on social trust contains different theories of the origins and determinants of social trust. It also contains many conflicting empirical findings, even within the same country and especially in cross-national research. In this paper we identify six main theories of trust, ranging from bottom–up, individual ones to top-down, societal ones. These theories run in parallel with different interpretations of the concept of trust itself. Some see it is a social-psychological property of individuals. People are 'trusters' or distrusters' according to how they were brought up, or according to their experience of later life. Others argue that trust is a social property and a contextual variable. Individuals don't 'have' it as a personal attribute, so much as evaluate the society in which they live as generally trustworthy or untrustworthy. The more people believe that others are to be trusted, the more they will act in a trustworthy manner themselves, and the more they will reinforce the virtuous circle of trust. In this sense trust is a contextual or emergent property of social systems, which means that it is a social good that is fortified by constant use.

In this study three of the six theories of trust fare rather poorly and three do better. We find rather little evidence to support the social-psychological theory that trust is part of a core personality syndrome that includes personal optimism and the belief that one is in control of one's own life. Nor is there a strong or widespread association between trust and membership of voluntary organisations. There is a link between them in three of the seven countries, but it is not close, it varies between different types of organisations, and it is not enough to support the great weight of expectations placed upon voluntary organisations by social capital theory. Voluntary organisations do not seem to do much, if anything for generalised trust in most countries. Nor are community characteristics, as a bloc of variables, closely associated with trust (only Slovenia is different in this respect). Neither city size, nor type of community, nor satisfaction with neighbourhoods are important. At the same time it is interesting to note that the one community characteristics that does appear as significant in six of the seven countries, is the feeling of safety in the streets at night. This is consistent with the conclusion (noted below) that lack of conflict and safety in the community is good for generating social trust.

And last among our negative findings, there is little evidence to suggest that trust is associated with the personal demographic characteristics of age, gender, and education. The absence of an association with education is surprising and not consistent with many other studies. The explanation may be that education is closely related to, and a major cause of, success and well-being in life, and it is the latter that is more closely associated with trust. The Euromodule's battery of questions dealing with success and well-being makes it possible to use the survey to test the relative weight of these items against education, and, for the most part education turns out to be relatively unimportant.

Three theories do quite well. First and foremost, societal conditions of conflict and safety are statistically significant in all seven country regressions, and they are strong or very strong in three of them. Generalised social trust tends to be high among citizens who believe that there are few severe social conflicts and where the sense of public safety is high. This is consistent with the theory that socially homogeneous societies, with shared understandings and low levels of conflict, are more likely to be trusting than societies with deep social and economic cleavages.

Second, membership of informal social networks is significant in all countries. In some cases two or more social network variables are significant in the same country regression. This is true not just of central European societies, such as Hungary, Slovenia, and East Germany, where informal network were thought to have played a particularly important role under Communist regimes, but also in the west.

And third, success and well-being theory performs quite well in six of the seven countries. There is, it seems, quite a lot in the suggestion that those who are successful in life can afford to trust more, or are more inclined by their personal experience to do so. In particular, anxiety, as the reverse of success and well-being, is associated with distrust: the successful and satisfied are inclined to trust, but the anxious are more often distrustful. This raises the possibility that social-psychology theory is right after all, but that instead of pessimism and lack of control as core personality variables, we should substitute anxiety. The Euromodule survey does not support this interpretation. It measures anxiety as a composite of five questions about exhaustion, depression, trembling, feeling keyed up, and having frightening thoughts. These might be the products of early socialisation, but the evidence shows strong associations between anxiety and lack of adult success and well-being. The highest anxiety scores are registered by the lowest income and social class groups, and by the unemployed (Delhey 2002), which suggests that trust and distrust is less the result of early socialisation than of adult life experiences.

Of the three successful theories, one is macro-societal (social conflict and safety), one is micro-social (personal networks), and one individual (success, well-being, and anxiety). We cannot, therefore, draw the conclusion that societal theories are more or less powerful than individual ones. Each seems to play a part. Is there any truth in the idea that different theories work best in societies with different levels of trust? Looking again at Table 11 suggests there may be. In the low trust societies of Hungary and Slovenia societal theory seems to work best, perhaps because of the recent social traumas in these two countries. In the medium trust societies of West Germany, East Germany, and Spain, social network theory works well, and in the high trust societies of Korea and Switzerland success and well-being theory is strongest. We should emphasise, again, that it is unwise to base too much on only seven cases, but nonetheless, it is worth noting that if different theories of trust do work best in societies with different trust levels, then the exact pattern is not the expected one. We anticipated that individual theories would work best in low trust societies and societal ones in high trust societies. In fact the reverse seems to be the case. This may have something to do with the fact that our two low trust societies happen to have experienced revolutionary change in the very recent past, so that societal events

have overwhelmed individual circumstances. Societal conditions also play a strong role in East Germany, but not quite as strong as success and well-being variables, perhaps because unification with West Germany has cushioning the societal shocks caused by the fall of the Berlin wall.

We can say rather little about causes and effects. Do people feel successful, satisfied, and happy because they trust, or is it the other way round? We suspect that the causal arrow flows from success in life and happiness to trust, because it is less plausible to argue that the trusting are able to make a success of their life, than that success makes it easier to trust. Success in life is likely to be the result of many different factors, rather than simply the product of a single personality variable. And is integration into an informal social network likely to generate trust, or is it that the trusting have good social contacts? It is impossible to tell from our data. But the association between societal conditions and trust may be easier to explain, and here a top-down model seems most appropriate. The belief that society is deeply divided by social and economic conflicts in East Germany, Hungary, and Slovenia is scarcely likely to be the result of low levels of trust in these countries. Lack of trust is not the cause of social and political upheaval and conflict in these countries, but the expression of them.

These conclusions suggest that future research on generalised social trust might do rather better to pay less attention to individual variations in trust within countries, and more to cross-national comparisons. It does not follow that we should throw out individual level theories. For example, at the individual level membership of voluntary organisations seems to do little for trust, but it may still be that at the national level an aggregate variable such as the density of voluntary associations is associated with cross-national variations in trust, which, in turn, is dependent on rates of individual participation in voluntary associations. But it does suggest that the next step in research might deploy a range of national variables measuring income and income distribution, democratic development, social cleavages and conflict, and historical experience. At any rate, the results of this research suggest that individual social-psychological and demographic characteristics are less likely to explain trust than objective and subjective measures of macro-social conditions and the strength of informal social networks.

Notes

1 For recent general work on the subject see, for example, Misztal 1996; Seligman 1997; Warren 1999; Braithwaite and Levi 1998; Gambetta 1988; Luhmann 1979; Coleman 1990; Ostrom 1990; Sztomka 1996, 1999; Hollis 1998. In addition much of the recent work on contemporary political attitudes and behaviour makes extensive reference to trust – see Putnam 1993, 2000; Edwards, Foley, and Diani, eds., 2001; van Deth et. al., eds., 1999; Portes 1998; Nye et al., eds., 1997; Norris, ed., 1999; Pharr and Putnam, eds., 2000; Eisenstadt 1995; Hall 1999; Pharr 2000; Bianco 1994; King 1997; Listhaug 1995; Kaase and Newton 1995; Rose and Mischler 1997.

2 One response is to emphasise the importance, not of organisations in general, but particular kinds that bridge between different social groups, rather than bond within social groups. Unfortunately, we have no evidence in the Euromodule study about bridging and bonding groups, so this particular proposition is beyond the scope of the present paper.

3 Differences between individual and aggregate variation is important, insofar as theories that work at one level may not work at the other – see Newton 2001.

4 Sweden is also a Euromodule country, but does not include a measure of trust in its questionnaire. Euromodule surveys have also been carried out in Austria, Italy, and Turkey but the data are not yet available.

5 We note, however, that there is no statistically significant association between social trust and confidence in democracy in the six country regressions that follow. This is consistent with earlier work that finds no evidence at the *individual level* to link social and political trust (Kaase 1999: 14; Torcal and Montero 1999: 181; Newton and Norris 2000).

6 The variables appearing in the country regressions vary from one country to another. This is because we wanted to select the strongest variables in each country to represent each theory, rather than run exactly the same list of variables for all countries. By using the strongest variables we not only get the best regression results, but we also test the theories by using the best combination of variables to represent them. If they do not seem to work even under these, the most favourable circumstances, there is all more reason to doubt their validity. It is worth pointing out that running exactly the same list of independent variables would only reduce the overall strength of association with trust. Given our interest in testing theories with the best possible measures we decided to run the strongest variables in each country, rather than a common set of variables for all countries.

7 That is, when it comes to testing theories against each other, we choose the most conservative strategy, but when it comes to picking variables as indicators of different theories, we pick the strongest ones (Footnote 6 above).

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Appendix 1

Possible determinants of social trust available in *Euromodule* surveys

Indicator	*Scaling*
A: Demographic characteristics (control variables)	
Gender	1 = female; 0 = male
Age	Open
Education	ISCED 1997 scheme, collapsed to 3 categories: primary, secondary, tertiary
B: Personality theory	
Optimism	1 = agree not at all, 2 = somewhat disagree, 3 = somewhat agree, 4 = completely agree
Influence on today's problems	1 = agree not at all, 2 = somewhat disagree, 3 = somewhat agree, 4 = completely agree
Life has become complicated	1 = agree not at all, 2 = somewhat disagree, 3 = somewhat agree, 4 = completely agree
C: Success and well-being theory	
Satisfaction standard of living	11-point scale (0 to 10); 0 = completely dissatisfied, 10 = completely satisfied
Satisfaction household income	11-point scale (0 to 10)
Satisfaction present job	11-point scale (0 to 10)
Life satisfaction	11-point scale (0 to 10)
Happiness	1 = very unhappy, 2 = not too happy, 3 = pretty happy, 4 = very happy.
Anxiety score	Score over 5 items: exhaustion, depressed, tremble, keyed up; frightening thoughts; count "yes"
Actual standard of living score	List of 22 items; count "have"
Deprivation score	List of 22 items; count "can not afford"
Household income	Respondents reported household income, open question, additionally income categories (if refused)
Financial situation of household, compared to 1 year ago,	1 = clearly deteriorated, 2 = deteriorated somewhat, 3 = remained the same, 4 = improved somewhat, 5 = clearly improved
Ability to make ends meet	1 = with great difficulty, 2 = with some difficulty, 3 = fairly easily, 4 = very easily
Social class (self positioning)	5 categories, collapsed to 3 categories: lower class/working class, middle class, upper middle class/upper class
Occupational status (present or last)	5 categories: unskilled/semi-skilled workers, skilled workers/foremen, employee/civil servant lower level, employee/civil servant higher level, self employed
Unemployment experience during last 5 years	1 = yes, 0 = no

(continued)

D: Voluntary organization theory	
Membership in associations/ organizations	9 association types: trade union, political party, neighbourhood association, environmental association, charity association, church related association, cultural group, sports club/leisure club, other; 1 = yes; 0 = no
No membership at all	1 = no member, 0 = member
E: Social network theory	
Close friends	1 = yes, 0 = no
Number of close friends	Open
Frequency of contacts	0 = no friends, 1 = infrequently, 2 = at least one a month, 3 = at least once a weak, 4 = nearly daily
Feeling lonely	1 = agree not at all, 2 = somewhat disagree, 3 = somewhat agree, 4 = completely agree
F: Community theory	
Town size***	Metric
Feel safe at night walking in home area	1 = very unsafe, 2 = rather unsafe, 3 = rather safe, 4 = very safe
Satisfaction neighbourhood	11-point scale (0 to 10)
Affected by crime incidents	Score over 3 items: get things stolen, be harassed or threatened, be beaten and hurt; count "yes"
G: Societal conditions theory	
Perception of social conflicts	6 conflicts: poor and rich people, unemployed and people with jobs, management and workers, young and old people, men and women, nationals and immigrants; 1 = no conflicts, 2 = only weak conflicts, 3 = strong conflicts, 4 = very strong conflicts
	also: overall conflict score, count "3" to "4"
Satisfaction with public safety	11-point scale (0 to 10)
Satisfaction with democracy *	11-point scale (0 to 10)
Achievement of public goods **	13 public goods: freedom of political participation, freedom to choose occupation, protection environment, protection private property, just distribution of wealth, equality men and women, quality of life chances, freedom of speech, freedom of religion/faith, protection from crime, social security, solidarity with poor and needy, chance to get a job; 1 = not at all achieved, 2 = rather not achieved, 3 = rather achieved, 4 = fully achieved
	also: overall achievement score, count "3" to "4"

* Only available for Germany, Hungary, Slovenia, and South Korea.
** Only available for Hungary, Slovenia, and South Korea.
*** Slovenia: type of community (5 categories), South Korea: type of community (3 categories).

Appendix 2

Slovenia

Table 4a: Summary of logistic regressions: Slovenia
Dependent variable trust = yes

Determinant (bloc of variables)	Bloc chi square/df	Bloc pseudo R square*	Bloc signifi-cance	Model chi square/df	Model pseudo R square*	Model % correct predictions
Societal conditions theory	40.358/3	.108	.000	40.358/3	.108	84.0
+ Community theory	30.231/6	.072	.000	70.589/9	.184	83.8
+ Social network theory	13.545/3	.033	.004	84.134/12	.217	83.3
+ Personality theory	12.407/3	.030	.006	96.542/15	.247	83.6
+ Success and well-being theory	13.783/4	.032	.008	110.325/19	.279	85.1
+ Demographic characteristics	6.676/8	.015	.154 n.s.	117.001/23	.294	85.4
+ Voluntary organization theory	2.836/3	.007	.418 n.s.	119.837/26	.301	84.9
Total model				119.837/26	.301	84.9

Notes: * Nagelkerke's R square.
Valid n = 663.
Stepwise regression according to minimum influence.

Data: Euromodule Slovenia 1999.

Table 4b: Total regression model: Slovenia
Dependent variable trust = yes

Variable	Regression Coefficient B	Wald
Constant	-5.515**	11.244
Personal demographic characteristics		
Gender (1 = women)	-.467	2.774
Age	.007	.599
Education level (ref.: secondary)		
Primary	-.699	1.940
Tertiary	.173	.271
Personality		
Optimism	.231	2.033
Cannot influence problems	-.362*	5.304
Life so complicated	.227	1.794
Success and well-being		
Standard of living	.036	.495
Life satisfaction	.162	2.529
Class affiliation (ref.: lower/working class)		
Middle class	.601	2.752
Upper middle/upper class	.960	3.442
Social networks		
Having friends	-.633	.798
Number close friends	.098***	12.836
Frequency of contacts	.150	.680
Voluntary organizations		
Sports club, leisure club	-.270	.672
Trade union	.311	1.357
Cultural group	.381	.846
Community characteristics		
Type of community (ref.: rural/village)		
Large city	1.167**	7.011
Suburb of large city	.998*	6.520
Middle-size city	.798*	4.617
Small city	-.255	.338
Satisfaction neighbourhood	.065	.792
Feel safe at night	.481*	4.345
Societal conditions		
Conflict rich - poor	-.557**	9.134
Conflict management - workers	-.521**	8.012
Achieved: freedom of political participation	.459*	6.576

Notes: Valid N = 663.
Model Chi-square: 119.837 / df 26, Significance .000.
% correct predictions: 85.
Nagelkerke's R Square .301; Mc Fadden's R square: .219.
Significance level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Data: Euromodule Slovenia 1999.

Hungary

Table 5a: Summary of logistic regressions: Hungary
Dependent variable trust = yes

Determinant (bloc of variables)	Bloc chi square/df	Bloc pseudo R square*	Bloc signifi-cance	Model chi square/df	Model pseudo R square*	Model % correct predictions
Societal conditions theory	35.189/3	.053	.000	35.189/3	.053	80.3
+ Social network theory	36.032/3	.052	.000	71.220/6	.105	80.2
+ Demographic characteristics	22.555/4	.021	.000	93.776/10	.136	80.5
+ Voluntary organization theory	11.373/3	.016	.010	105.148/13	.152	81.6
+ Community theory	8.749/3	.012	.033	113.897/16	.164	80.8
+ Success and well-being theory	5.399/3	.007	.145 n.s.	119.296/19	.171	80.8
+ Personality theory	3.236/3	.005	.357 n.s.	122.532/22	.176	81.0
Total model				122.532/22	.176	81.0

Notes: * Nagelkerke's R square.
Valid n = 1045.
Stepwise regression according to minimum influence.

Data: Euromodule Hungary 1999.

Table 5b: Total regression model: Hungary
Dependent variable trust = yes

Variable	Regression Coefficient B	Wald
Constant	-2.620**	9.044
Personal demographic characteristics		
Gender (1 = women)	-.227	1.609
Age	.002	.132
Education level (ref.: secondary)		
Primary	-.141	.361
Tertiary	.805***	13.051
Personality		
Optimism	.165	2.145
Cannot influence problems	.007	.004
Life so complicated	.141	1.579
Success and well-being		
Satisfaction with household income	.027	.380
Financial situation household, now vs. one year ago	.129	1.631
Anxiety	-.105	1.684
Social networks		
Having friends	1.052*	5.650
Number close friends	.133**	7.985
Frequency of contacts	-.283*	4.349
Voluntary organizations		
Church related association	.534	.858
Cultural group	1.695*	6.673
Sports club, leisure club	.578	2.635
Community characteristics		
Size of community	.000	.300
Satisfaction neighbourhood	.006	.028
Feel safe at night	.226*	4.755
Societal conditions		
Conflict nationals vs. immigrants	-.212*	4.437
Conflict management vs. workers	-.301**	8.406
Achieved: chance to get a job	.124	1.064

Notes: Valid n = 1045.
Model Chi-square: 122.532 / df 22, Significance .000.
% correct predictions: 81.
Nagelkerke's R Square .176; Mc Fadden's R square: .118.
Significance level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Data: Euromodule Hungary 1999.

Spain

Table 6a: Summary of logistic regressions: Spain
Dependent variable trust = yes

Determinant (bloc of variables)	Bloc chi square/df	Bloc pseudo R square*	Bloc signifi-cance	Model chi square/df	Model pseudo R square*	Model % correct predictions
Social network theory	87.520/3	.067	.000	87.520/3	.067	70.8
+ Success and well-being theory	61.327/4	.045	.000	148.847/7	.112	71.5
+ Societal conditions theory	19.288/3	.014	.000	168.136/10	.126	71.9
+ Personality theory	2.410/3	.001	.492 n.s.	170.546/13	.127	71.9
+ Demographic characteristics	5.519/4	.004	.238 n.s.	176.065/17	.131	71.5
+ Community theory	5.773/3	.004	.123 n.s.	181.838	.135	71.3
+ Voluntary organization theory	5.502	.004	.139 n.s.	187.340	.139	71.9
Total model				187.340	.139	71.9

Notes: * Nagelkerke's R square.
Valid n = 1824.
Stepwise regression according to minimum influence.
Data: Euromodule Spain 2000.

Table 6b: Determinants of social trust: Spain
Dependent variable trust = yes

Variable	Regression Coefficient B	Wald
Constant	-2.141***	13.875
Personal demographic characteristics		
Gender (1 = women)	-.055	.232
Age	.006	.124
Education level (ref.: secondary)		
Primary	.132	.933
Tertiary	.297	1.865
Personality		
Optimism	-.024	.116
Cannot influence problems	-.046	.556
Life so complicated	-.069	.875
Success and well-being		
Standard of living	.030	2.788
Anxiety	-.275***	31.776
Class affiliation (ref.: lower/working class)		
Middle class	.130	1.142
Upper middle/upper class	-.106	.189
Social networks		
Having friends	.257	2.502
Number close friends	.137***	18.988
Feeling lonely	.113	2.731
Voluntary organizations		
Trade union	.291	1.916
Cultural group	.496	3.416
Sports club, leisure club	.083	.259
Community characteristics		
Town size	.001*	2.059
Satisfaction neighbourhood	-.014	.161
Feel safe at night	.162	3.274
Societal conditions		
Conflict management - workers	-.147	3.787
Conflict nationals - immigrants	-.061	.777
Satisfaction with public safety	.066*	4.899

Notes: Valid n = 1824.
Model Chi-square: 187.340 / df 23, Significance .000.
% correct predictions: 72.
Nagelkerke's R Square .139; Mc Fadden's R square: .085.
Significance level: * p < 0.05, ** p < 0.01, *** p < 0.001.

Data: Euromodule Spain 2000.

West Germany

Table 7a: Summary of logistic regressions: West Germany
Dependent variable trust = yes

Determinant (bloc of variables)	Bloc chi square/df	Bloc pseudo R square*	Bloc signifi-cance	Model chi square/df	Model pseudo R square*	Model % correct predictions
Social network theory	72.298/3	.059	.000	72.298/3	.059	69.3
+ Societal conditions theory	66.704/3	.052	.000	139.002/6	.112	70.1
+ Success and well-being theory	24.769/5	.019	.000	163.771/11	.131	69.6
+ Personality theory	8.131/3	.006	.043	171.902/14	.137	69.2
+ Community theory	5.717/4	.004	.221 n.s.	177.619/18	.141	70.3
+ Demographic characteristics	9.181/3	.007	.027	186.799/21	.148	70.2
+ Voluntary organization theory	4.355/3	.003	.226 n.s.	191.154/24	.151	70.4
Total model				191.154/24	.151	70.4

Notes: * Nagelkerke' s R square.
Valid n = 1683.
Stepwise regression according to minimum influence.
Data: Euromodule Germany 1999.

Table 7b: Determinants of social trust: West Germany
Dependent variable trust = yes

Variable	Regression Coefficient B	Wald
Constant	-2.819***	21.484
Personal demographic characteristics		
Gender (1 = women)	.002	.000
Age	-.006	2.682
Education level (ref.: secondary)		
Primary	.159	.949
Tertiary	.190	1.663
Personality		
Optimism	.107	1.788
Cannot influence problems	-.128	2.994
Life so complicated	.107	1.812
Success and well-being		
Anxiety	-.176**	7.803
Class affiliation (ref.: middle class)		
Lower class	-.715	1.186
Working class	.035	.059
Upper middle/upper class	.317	3.310
Financial situation household, now vs. one year ago	.101	1.470
Social networks		
Number close friends	.090***	25.239
Frequency of contacts	.133*	6.665
Feeling lonely	.061	.625
Voluntary organizations		
Other membership	.344*	4.690
Cultural group	.412	3.550
Sports club, leisure club	.181	1.934
Community characteristics		
Town size	.001	3.431
Satisfaction neighbourhood	-.019	.424
Feel safe at night	.020	.054
Societal conditions		
Conflicts	-.097**	7.835
Satisfaction with public safety	.090*	6.395
Satisfaction with democratic institutions	.113***	12.422

Notes: Valid n = 1683.
Model Chi-square: 191.154 / df 24, Significance .000.
% correct predictions: 70.
Nagelkerke's R Square .151; Mc Fadden's R square: .092.
Significance level: * p < 0.05, ** p < 0.01, *** p < 0.001.

Data: Euromodule Germany 1999.

East Germany

Table 8a: Summary of logistic regressions: East Germany
Dependent variable trust = yes

Determinant (bloc of variables)	Bloc chi square/df	Bloc pseudo R square*	Bloc signifi-cance	Model chi square/df	Model pseudo R square*	Model % correct predictions
Success and well-being theory	40.633/8	.141	.000	40.633/8	.141	71.6
+ Social network theory	14.045/3	.045	.003	54.677/11	.186	72.4
+ Voluntary organization theory	13.643/3	.043	.003	68.321/14	.229	72.4
+ Societal conditions theory	22.193/3	.066	.000	90.514/17	.295	75.5
+ Community theory	6.498/3	.018	.090 n.s.	97.012/20	.313	75.7
+ Personality theory	12.932/3	.036	.005	109.944/23	.349	76.0
+ Demographic characteristics	9.465/5	.026	.092 n.s.	119.409/28	.375	78.6
Total model				119.409/28	.375	78.6

Notes: * Nagelkerke's R square.
Valid n = 387.
Stepwise regression according to minimum influence.

Data: Euromodule Germany 1999.

Table 8b: Determinants of social trust: East Germany
Dependent variable trust = yes

Variable	Regression Coefficient B	Wald
Constant	-4.582**	7.909
Personal demographic characteristics		
Gender (1 = women)	-.564	3.102
Age	.008	.823
Education level (ref.: secondary)		
Primary	.527	.665
Tertiary/non-university	-.335	.644
Tertiary/university	.880	3.311
Personality		
Optimism	.340	3.228
Cannot influence problems	-.203	1.124
Life so complicated	.571**	9.755
Success and well-being		
Life satisfaction	.036	.140
Class affiliation (ref.: lower/working class)		
Middle class	-.080	.069
Upper middle/upper class	1.486	2.133
Occupation (ref.: employee/civil servant, higher and medium level)		
Other	1.449	3.759
Unskilled/semi skilled worker	-7.084	.428
Skilled worker/foreman	.687	2.817
Employee/civil servant, lower level	-.108	.067
Self employed	.454	.526
Social networks		
Number close friends	.021	.271
Frequency of contacts	.355**	9.854
Feeling lonely	.066	.140
Voluntary organizations		
No membership (1 = no member)	-.425	2.011
Church related association	3.198**	6.963
Environmental association	8.128	.018
Community characteristics		
Town size	-.111	2.082
Satisfaction neighborhood	-.026	.126
Feel safe at night	.572**	7.097
Societal conditions		
Conflicts	-.239*	6.228
Satisfaction with public safety	.053	.341
Satisfaction with democratic institutions	.063	.592

Notes: Valid n = 387.
Model Chi-square: 119.409 / df 28, Significance .000.
% correct predictions: 79.
Nagelkerke's R Square .375; Mc Fadden's R square: .251.
Significance level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Data: Euromodule Germany 1999.

Switzerland

Table 9a: Summary of logistic regressions: Switzerland
Dependent variable trust = yes

Determinant (bloc of variables)	Bloc chi square/df	Bloc pseudo R square*	Bloc signifi-cance	Model chi square/df	Model pseudo R square*	Model % correct predictions
Voluntary organization theory	47.257/3	.049	.000	47.257/3	.049	59.4
+ Success and well-being theory	53.558/3	.053	.000	100.815/6	.102	60.9
+ Personality theory	27.615/3	.027	.000	128.431/9	.129	61.8
+ Demographic characteristics	14.734/4	.014	.005	143.165/13	.143	62.6
+ Community theory	22.316/3	.020	.000	165.481/16	.163	63.9
+ Societal conditions theory	14.300/3	.014	.003	179.780/19	.176	65.1
+ Social network theory	4.235/3	.004	.237 n.s.	184.015/22	.180	65.5
Total model				184.015/22	.180	65.5

Notes: * Nagelkerke' s R square.
Valid n = 663.
Stepwise regression according to minimum influence.
Data: Euromodule Switzerland 2000.

Table 9b: Determinants of social trust: Switzerland
Dependent variable trust = yes

Variable	Regression Coefficient B	Wald
Constant	-2.542**	9.185
Personal demographic characteristics		
Gender (1 = women)	-.324*	5.800
Age	.007	3.019
Education level (ref.: secondary)		
Primary	-.418	.073
Tertiary	.349*	4.429
Personality		
Optimism	.247***	12.702
Cannot influence problems	-.167*	6.717
Life so complicated	-.071	.593
Success and well-being		
Anxiety	-.188*	6.478
Standard of living	.025	.990
Satisfaction with standard of living	.093*	4.321
Social networks		
Having friends	.181	1.046
Number close friends	.023	1.491
Feeling lonely	.021	.063
Voluntary organizations		
No membership (1 = no member)	-.230	2.401
Environmental association	.763***	15.530
Charity association	.234	2.007
Community characteristics		
Town size	.001*	5.924
Satisfaction neighbourhood	.005	.017
Feel safe at night	.314**	11.499
Societal conditions		
Conflict rich - poor	-.147	2.488
Conflict nationals - immigrants	-.240**	7.803
Satisfaction with public safety	.045	1.407

Notes: Valid n = 1271.
Model Chi-square: 184.015 / df 22, Significance .000.
% correct predictions: 66.
Nagelkerke's R Square .180; Mc Fadden's R square: .105.
Significance level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Data: Euromodule Switzerland 2000.

South Korea

Table 10a: Summary of logistic regressions: South Korea
Dependent variable trust = yes

Determinant (bloc of variables)	Bloc chi square/df	Bloc pseudo R square*	Bloc signifi-cance	Model chi square/df	Model pseudo R square*	Model % correct predictions
Success and well-being theory	38.619/6	.052	.000	38.619/6	.052	61.8
+ Social network theory	22.280/3	.029	.000	60.899/9	.081	63.6
+ Societal conditions theory	8.588/3	.009	.035	69.487/12	.092	63.5
+ Demographic characteristics	3.604/4	.004	.462 n.s.	73.091/16	.096	64.1
+ Community theory	2.926/4	.004	.570 n.s.	76.017/20	.100	64.1
+ Personality theory	.383/3	.000	.944 n.s.	76.399/23	.100	63.5
+ Voluntary organization theory	2.117/3	.003	.549 n.s.	78.516/26	.103	64.1
Total model				78.516/26	.103	64.1

Notes: * Nagelkerke' s R square.
Valid n = 992.
Stepwise regression according to minimum influence.

Data: Euromodule Korea 2001.

Table 10b: Determinants of social trust: South Korea
Dependent variable trust = yes

Variable	Regression Coefficient B	Wald
Constant	-.581	.408
Personal demographic characteristics		
Gender (1 = women)	.268	3.459
Age	.002	.098
Education level (ref.: secondary)		
Primary	-.072	.095
Tertiary	-.070	.155
Personality		
Optimism	.000	.000
Cannot influence problems	.003	.001
Life so complicated	-.056	.283
Success and well-being		
Satisfaction with standard of living	.113*	5.022
Anxiety	-.108	1.921
Income position (ref.: lowest quintile)		
2. quintile	-.072	.111
3. quintile	-.221	.883
4. quintile	.273	1.199
5. quintile	.412	2.465
Social networks		
Having friends	-.791**	7.945
Number close friends	.087**	8.466
Feeling lonely	.088	.660
Voluntary organizations		
No membership (1 = no member)	.059	.073
Church related association	.388	1.045
Cultural group	,575	.826
Community characteristics		
Type of community (ref.: large city)		
Middle or small city	-.225	2.284
Village or rural area	-.117	.265
Satisfaction neighborhood	.023	.212
Feel safe at night	.079	.307
Societal conditions		
Conflict rich - poor	-.111	1.127
Satisfaction with public safety	.026	.272
Achieved: social security	.214*	4.098

Notes: Valid n = 992.
Model Chi-square: 78.516 / df 26, Significance .000.
% correct predictions: 64.
Nagelkerke's R Square .103; Mc Fadden's R square: .059.
Notes: Significance level: * p < 0.05, ** p < 0.01, *** p < 0.001

Data: Euromodule Korea 2001.