

5 Measuring and Modelling Interpersonal Trust

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The growing literature on trust, social capital, and well-being relies almost exclusively on a single survey measure of interpersonal trust: "Generally speaking, do you think that most people can be trusted, or that you can't be too careful in dealing with people?" Efforts at modelling responses to this balanced question are becoming increasingly sophisticated. Notable recent examples include Alesina and La Ferrara (2000) on the individual and contextual determinants of trust and Glaeser et al. (1999) on the link between responses to the question and actual behaviour in laboratory trust games. The measure underpins a cross-national growth industry, mainly through the World Values Survey (WVS). And international evidence from the WVS has been brought back home, as it were, to explain ethnic and regional differences in trust in the United States (Rice and Feldman 1997). Only rarely, however, is any attention paid to what a response to the question actually means. Most critically, does the question elicit a response – based perhaps on past experience – that indicates a person's real expectations of others' trustworthiness? Or does it register a moral predisposition, a statement about how one *should* react to others?

This chapter holds up a mirror to the standard question by comparing it with other renderings. Some of the alternatives are, like the original wording, about trust as a general proposition. Our most pointed demonstration, however, involves comparison with questions about a specific trust situation, a lost wallet. These questions mimic a widely publicized field experiment (Knack 2001). Part of the comparison involves simple response distributions, joined to observations on items' face validity. The most telling comparisons deploy multivariate techniques to plumb the sources of response. Where response to the traditional, highly general indicator is powerfully shaped by cultural norms, response to the specific, wallet question is sensitive to context and

life experience. That said, the traditional indicator still gauges how much respondents believe others to be trustworthy.

In getting to this point, we also draw a lesson about Canada. Our sample and our questionnaire are rich in representation of Canada's ethno-religious diversity, of its high rate of immigration, and of its group life. In line with hypotheses that seemed plausible but were hitherto unsupported empirically, "bridging" groups appear to be more highly correlated than "bonding" groups with generalized trust. We also reproduce Rice and Feldman's (1997) finding that civic attitudes of immigrants are highly correlated with attitudes in their countries of origin. But the integrative power of Canadian society is also very much in evidence.

Concepts and Measures

Our opening generalization about lack of attention to the meaning and measurement of trust admits notable exceptions. Smith (1997) examines the trust question as part of a misanthropy scale, for instance, and finds that trusting responses decline when the question is preceded by questions on crime and victimization. "These items are especially prone to context effects," Smith suggests, "because they call for global assessments of people in general based presumably on one's entire life experience. Making judgements based on such massive, cognitive retrievals are difficult and open to variability" (*ibid.*, 174). Controlling for these survey-based differences, however, Smith finds the misanthropy scale to be systematically and logically related to several other variables. Responses to the generalized trust question are valuable, but the placement of the question deserves attention.

Uslaner (2002) offers the most comprehensive consideration of responses to the generalized trust question to date, and the only one to explicitly link theories of trust with analyses of public opinion surveys. Uslaner distinguishes between *moralistic* and *strategic* trust, where the latter is based on individuals' experiences, and the former is something closer to a predisposition. When analysts in the rational choice tradition, economists especially, talk about trust, they tend to mean strategic trust, as in repeated games in which decisions to trust or not to trust are based on experiences in previous games. Moralistic trust, on the other hand, is rooted in our beliefs about others, which can be almost totally divorced from personal experience. Strategic trust is about how one thinks others will behave; moralistic trust is about whether one should trust others regardless of their behaviour (Uslaner 2002, 18-19).

Moralistic trust seems closer to Avigail Eisenberg's (see Chapter 4, this volume) emphasis on trust in strangers.

Uslaner's tests suggest that the generalized trust question is primarily about moralistic trust. Responses to the question are remarkably stable; they tend not to change based on experience; they are closely correlated with enduring feelings such as optimism, a feeling that one controls one's own fate, and with a willingness to participate in civic life. Although Uslaner makes a strong case that the question is primarily about moralistic trust, he does not go far in considering ways of measuring strategic trust or of measuring the role, however small, that strategic trust may play in responses to a moralistic trust question. Moreover, a lack of comparable alternative measures prevents Uslaner from performing a more detailed analysis of trust responses. He does a good job with what is available, but, as he notes, not much is available.

Measuring Trust

Wordings and frequencies for various trust questions in the Equality, Security, and Community (ESC) survey appear in Table 5.1.¹ The first four indicators gauge trust independently of context. Some of the aggregate differences among Questions 1 to 4 can be explained by the literature on survey question wording. In particular, Schuman and Presser's (1996) experiments on question wording suggest consideration of two related effects: (1) balance effects, where changing a question's wording to reflect a formal balance of alternatives (i.e., changing "do you favour" to "do you favour or oppose") has a significant effect on the distribution of responses, and (2) acquiescence effects, where respondents have a tendency to agree with attitude statements in survey items (see also Campbell et al., 1960; Peabody, 1961). Frequencies in Table 5.1 show evidence of both effects. While Q1 leads to a relatively even split between trusting and non-trusting respondents, unbalanced questions show evidence of considerable acquiescence effects. Q3 suggests that 74 percent of respondents are trusting; its opposite, Q4, suggests that 68 percent of respondents are not.

Differences in answers rest on more than acquiescence, however. Rather, dissimilar responses to different trust questions appear to be in large part a product of genuine differences in reasoning. Different trust questions, while addressing a similar subject, ask respondents to think about trust in different ways. The end result is a change in the distribution of responses representing a

TABLE 5.1

Trust questions in the ESC survey

Question	Not trusting %	Neutral/DK %	Trusting %	Total (N)
TRUST QUESTIONS ...				
Q1 Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?	42.8	4.4	52.7	(4,485)
Q2 People can be trusted until they prove otherwise. (Agree or Disagree)	14.2	2.9	82.8	(6,557)
Q3 Generally speaking, most people can be trusted. Do you agree or disagree?	22.7	3.5	73.8	(3,540)
Q4 Generally speaking, you can't be too careful in dealing with people. Do you agree or disagree?	68.0	4.4	27.6	(3,465)
WALLET QUESTIONS ...				
Q5 If you lost a wallet or purse that contained two hundred dollars, how likely is it to be returned with the money in it if it was found ... by someone who lives close by?	13.3	38.6	48.1	(6,408)
Q6 If you lost a wallet or purse that contained two hundred dollars, how likely is it to be returned with the money in it if it was found ... by a clerk at the grocery store where you do most of your shopping?	9.5	33.3	57.3	(6,413)
Q7 If you lost a wallet or purse that contained two hundred dollars, how likely is it to be returned with the money in it if it was found ... by a police officer?	5.5	23.1	71.3	(6,412)
Q8 If you lost a wallet or purse that contained two hundred dollars, how likely is it to be returned with the money in it if it was found ... by a complete stranger?	39.3	49.8	10.7	(6,380)

NOTE: Cells contain frequencies based on combined first wave, metro oversample, and resource community sample, unweighted.

more substantive difference, one that is particularly interesting for those studying interpersonal trust and the relationship between this and other variables.

For instance, the difference between responses to Q2 and Q3 is likely due to a subtle but important difference in wording. Agreeing with Q3 ("generally speaking, most people can be trusted") suggests that one has a positive, universal appraisal of whether people are trustworthy. Agreeing with Q2 ("people can be trusted until they prove otherwise") may suggest only that one approves of a particular trusting strategy. The strategy may be a relatively optimistic one, but it is also fairly safe. Agreeing with Q2 is easier than agreeing with Q3, then, and this is reflected in a 10-point increase in the percentage of trusting respondents. Another way of comparing Q2 and Q3 is to treat Q3 as having an implicit alternative category, since people who have not proven themselves trustworthy in the past are excluded from the group whose future trustworthiness is being assessed. This alone should guarantee that more people would agree with Q2 than Q3, as indeed they do. Differences between answers to Q3 (the blanket trust item) and Q4 ("you can't be too careful") are also likely to represent more than simply acquiescence effects. In particular, saying that you cannot be too careful in dealing with people is not the same as saying that people in general cannot be trusted. The former would reflect a cautious disposition, while the latter would simply be the reverse of Q1, the canonical measure.²

Questions 5 to 8 solicit a trusting response in alternative contexts, each time with a question about a lost wallet. These new questions are original to the ESC survey and are modelled after an experiment in which wallets containing fifty US dollars each were dropped in fourteen Western European and twelve US cities, and the number of returned wallets was used as a measure of how trustworthy residents are [as reported in *The Economist*, 22 June 1996]. Knack (2001, 184-85) has shown that more than one-third of the cross-regional and cross-national variation in answers to the balanced trust question can be explained by the frequency of return of experimentally dropped cash-bearing wallets. Our questions about the return of a wallet focus on a paradigmatic circumstance of trust. The situation provides no natural enforcement mechanisms, and nothing is said about a reward for trustworthy behaviour. Additionally, the questions specify alternative types of finder, making it possible for us to investigate in more detail the nature and radius of trust (Fukuyama 1995b). Police officers are considered the most likely to return lost wallets (Q7), followed by grocery clerks (Q6), neighbours (Q5), and finally strangers (Q8).

On the one hand, response to the wallet questions resembles that to the generalized questions, exactly as Knack (2001) implies. For example, a reliability analysis of all eight items in Table 5.1 yields a Cronbach's α of 0.68, and no subsetting of items yields a higher α .³ Although the average inter-item correlation is about 0.4 among the generalized items, 0.3 among the wallet items, and only 0.1 to 0.15 between subdomains, factor analysis of the eight-item pool yields only one eigenvalue larger than one, and all items load similarly on this first factor.⁴ The simplest representation of the overlap appears in Table 5.2, which cross-tabulates the canonical generalized question, Q1, with each wallet item. In general, someone who says that a wallet is "very likely" to be returned is 30 points more likely to say "people can be trusted" and 30 points less likely to say that "you can't be too careful." The wallet item with the least discriminatory power refers to a police officer, a reflection of how ubiquitous – and thus, how uninformative, relatively speaking – trust in the police is. The wallet item that evokes the least trusting response distribution, about strangers, produces the same discriminatory power as do the references to a neighbour and to a shop clerk.

On the other hand, Table 5.2 reveals plenty of slippage, more than we might expect from simple random measurement error. It is tempting to regard the general questions as relating to Uslaner's "moralistic trust," while the wallet questions refer to "strategic trust." Uslaner's language may be strained in relation to the general questions, as none asks about morality as the basis for motivation or behaviour. Still, the general question accepts ambiguity about the reference group the respondent might have in mind. This might invite responses that describe what persons think they *should* think rather than what they actually *do* think. The wallet questions are more precise, specifying both the nature of the event and the nature of the person whose trustworthiness is being evaluated. Intuitively, these questions seem to invite a probabilistic response. Indeed the response categories themselves are construed as probabilities.

Modelling Trust

To flesh out these intuitions, we need to model response at the source, so to speak. On one hand, we examine factors that index experience: immigrant status, indicators of social interaction, including aspects of neighbourhood context, marital history, spatial and non-spatial distributions of affiliation, and membership in formal organizations. On the other hand, we look at indicators of cultural orientation: respondents' own ethnicity (not to be confused

TABLE 5.2

Relationships between generalized trust and wallet questions

Wallet Questions		Generalized trust		
		Can't be too careful	Most people can be trusted	
Neighbour	Not at all likely	65.5% (359)	34.5% (189)	
	Likely	34.5% (688)	65.5% (1,307)	
Clerk	Not at all likely	66.8% (268)	33.2% (133)	$\chi^2 = 170.8, p < .001$
	Likely	36.6% (879)	63.4% (1,522)	
Police	Not at all likely	65.5% (146)	34.5% (77)	$\chi^2 = 129.8, p < .001$
	Likely	39.7% (1,192)	60.3% (1,811)	
Stranger	Not at all likely	60.8% (996)	39.2% (643)	$\chi^2 = 56.8, p < .001$
	Likely	27.6% (124)	72.4% (325)	
				$\chi^2 = 155.8, p < .001$

NOTE: Cells contain row percentages with counts in parentheses, based on combined first wave, metro oversample, and resource community sample, unweighted. Respondents in the middle category for either the generalized trust or wallet questions are omitted.

with immigration), aspects of their country or countries of ethnic origin, religion, and educational attainment. We also include controls to improve specification and to stabilize the estimation. When reporting differences, we generally emphasize differences (in boldface type) estimated to be significantly different from zero. To keep the number of observations as large as possible, we generally make use of the combined national, urban-oversample, and resource-community samples, although we also include variables designed to search for features of the results that may be specific to particular sample groups.

GENERALIZED TRUST

Table 5.3 presents logistic regressions for the traditional generalized trust question treated as a binary variable, where 1 is "most people can be trusted." Estimates are presented stagewise. In Model 1 appear demographic, ethnic, ethnic context, economic, and other contextual variables. Variables included

TABLE 5.3

Responses to general trust questions

	Dependent variables: generalized trust		
	Model 1	Model 2	Model 3
Independent variables			
Basic demographics			
Female	-0.159 ^{ns}	-0.158 ^{ns}	-0.164 ^{ns}
Age:			
30-49	0.022	0.064	0.041
50-65	0.548 ^{ns}	0.585 ^{ns}	0.597 ^{ns}
66+	0.309 ^{ns}	0.321 ^{ns}	0.270 ^{ns}
Education:			
finished high school	0.326 ^{ns}	0.359 ^{ns}	0.339 ^{ns}
started college/univ.	0.716 ^{ns}	0.694 ^{ns}	0.623 ^{ns}
finished college/univ.	0.778 ^{ns}	0.835 ^{ns}	0.774 ^{ns}
Religion:			
Catholic	0.012	0.037	0.005
Protestant	0.137	0.105	0.073
French	-1.210 ^{ns}	-1.340 ^{ns}	-1.260 ^{ns}
Immigrant	-0.227 ^{ns}	0.154	0.194
Health	0.486 ^{ns}	0.470 ^{ns}	0.435 ^{ns}
Resource oversample	0.055	0.050	0.061
Ethnicity			
R is visible minority	-0.011	-0.030	-0.065
Visible minority (%)	-0.181	-0.096	-0.036
Interaction	-0.131	-0.031	0.010
Economic situation			
Economic outlook	0.206 ^{ns}	0.305 ^{ns}	0.297 ^{ns}
Median income	-5.655	-8.699 ^{ns}	-7.424
Income diversity	0.120	0.198	0.079
Other contextual variables			
Education (% > high school)	1.214 ^{ns}	1.127 ^{ns}	1.030 ^{ns}
Mobility (% 5 yrs.)	-0.327	-0.290	-0.260
Population density	-0.027	-0.020	-0.020
"National trust"			
Imported trust		2.711 ^{**}	2.909 ^{ns}
Parental trust		0.864	0.658
Networks			
Divorced			-0.083
Sees family			-0.081
Sees friends			0.282 [*]
Sees neighbours			0.160 ^{ns}
Religious memberships			0.252 ^{**}
Ethnic memberships			-0.203
Other memberships			0.090 ^{ns}
Constant	-0.713 ^{ns}	-0.642 ^{ns}	-1.021 ^{ns}
N / PSUs	3,675/1,218	3,163/1,120	3,116/1,110
F (df)	14.33 ^{ns}	12.08 ^{ns}	10.62 ^{ns}

NOTE: Cells contain coefficients, with standard errors (in parentheses) and odds ratios *in italics*, from a logit estimation using corrected standard errors. Results are based on combined first wave, metro oversample, and resource community sample, unweighted.
^{*} p < .10; ^{**} p < .05; ^{ns} p < .01.
 All coefficients significant at p < .10 are in bold.

here give the basic structure of "domestic" factors in trust and are drawn, in large part, from the recent empirical literature on trust (e.g., Alesina and La Ferrara 2000; Glaeser et al. 2000; Helliwell and Putnam 1999; Uslaner 2002). Model 2 adds two representations of "national" trust, indicators of trust levels in immigrants' and immigrants' parents' countries of origin. This captures and extends the logic of Rice and Feldman's (1997) work exploring links between US immigrants' generalized trust scores and average scores in their countries of origin (discussed in more detail below). We look both at these variables themselves and at their impact on factors considered in Model 1. Does referring to national origin help interpret an earlier finding about ethnicity or immigrant status, for example? A similar logic applies to Model 3, where network variables are added.

Respondents with higher levels of education give more positive assessments to the general trust question, by an amount that increases with each level of educational attainment. This educational effect has been found in all previous analyses of answers to the balanced trust question and has been treated as support for the idea that education inculcates civic values (e.g., Helliwell and Putnam 1999). Some support for this interpretation comes from the fact that higher levels of education are positively correlated with survey answers whose relation to civic values is less ambiguous than in the case of the general trust question (e.g., Rice and Feldman, 1997). But if we are right to think of differences in response to the balanced trust question as being assessments of how well others can be trusted, then it is less clear why those with higher levels of education should give more positive assessments. Three hypotheses possibly explain the finding: (1) those with higher levels of education are more likely to encounter trustworthy behaviour; (2) ignorance breeds fear, which can then be dispelled by education; and (3) education raises other civic attitudes, increases awareness of the value of a trusting society, and incites respondents to put an optimistic twist to their assessments, thus making them embody some element of what should happen in a better world, reflecting the "moralistic" interpretation discussed earlier. If this more optimistic assessment is also reflected in personal behaviour – actions embodying trust – then higher levels of education should lead to higher levels of trust and trustworthiness within the community.

The "ignorance breeds fear" hypothesis is one way of explaining why those with higher levels of education provide more optimistic assessments of the trustworthiness of others. But the differential evaluations, to the extent that they refer to the same populations, might equally well represent excess

optimism by those with more education. Are the less-educated excessively pessimistic, or are the more-educated too optimistic? If we had experimental dropped-wallet evidence, we might be able to address this puzzle by seeing whether the cross-community differences in answers to the dropped-wallet question were more accurately explained by the more-educated than by the less-educated respondents.

The third possibility, that the generally greater civic involvement of those with more education leads them to presume higher levels of trust, perhaps because this is more likely to support a high-trust society (the "moralistic" interpretation), is hard to distinguish from the "differential experience" hypothesis. The ambiguity may not matter overmuch, as there are likely to be positive spillovers from education in either event, although they might be presumed to be larger under the "civic culture" case than under the "differential experience" hypothesis. Research comparing the answers to the generalized trust assessment question with answers to more value-based questions might help to shed more light on the sources and consequences of the strong positive effect that education has on trust assessments.

Education effects persist when network connections are controlled. Education *does* lead to more participation in voluntary community organizations, which itself is often used as a measure of the strength of civic culture. This would tend to cause those with higher levels of education to spend more time with other civic-minded people and, hence, to give more positive answers to the general trust question. Be that as it may, Model 3 indicates that the education effect persists even when network ties are controlled.

Healthy people are more trusting. The coefficient on self-assessed health may reflect, in part, individual personality differences, with optimists assessing both their health and their communities in a more optimistic way. But epidemiological research also shows that those who are well-supported by family, friends, and community networks live longer and in better health than others – certain groups are more vulnerable to ill health due to their isolation or lack of social ties (Veenstra 2001; Curtis and Perks, Chapter 6, this volume; Berkman and Syme 1979). But our health effect captures more than this, since the coefficient shrinks only slightly when the same network variables are controlled. Then, too, the health effect may indicate network effects more subtle than those captured by our questions. It is also possible that the same events that produce some types of ill-health also place people in less supporting and less trustworthy environments than are those that are fully captured by our other individual and contextual variables.

Francophones are less trusting. Once again, we are unsure whether this reflects differences in optimism or differences in the trust environment that respondents are actually assessing. The finding puts us in mind of Knack (2001) who uses cross-country differences in responses to the general trust question to predict cross-country differences in the proportions of dropped wallets that are actually returned. His results show that France, which has very low trust assessments, is an outlier in his regression: the extent of trustworthy behaviour in France, as measured by the frequency with which dropped wallets are returned, is significantly higher than is forecast by answers to the generalized trust question. The frequency of wallet return is about at the European average, while the trust assessments are very low in France. If French origins are the key to the Canadian pattern, the footprint from earlier migration must be incredibly long.

Immigrants are less trusting than are the Canadian-born. This is a difference that glosses over ethnic differences among both immigrants and natives. If it is tempting to conclude that something in the experience of immigration makes new Canadians generally distrustful, the findings from the wallet questions should give us pause. And the explanation for generalized trust does not lie in the Canadian experience but in the country of origin. The home country leaves a "footprint," as just hinted for francophones. The idea of a footprint comes out of Rice and Feldman (1997), who find that trust assessments by immigrants reflect to a striking degree the (current) average trust assessments in the countries from which they or their ancestors immigrated. Strikingly, differences in the United States persist for a long time. The effect is as great for those with grandparents born in the United States as for those with parents born abroad. The two "national trust" terms test the "footprint" hypothesis in the Canadian context. "Imported trust" is an imputation to each respondent of the average trust score in his or her country of birth minus the average trust score in Canada, calculated from national samples in the most recent WVS. For those born in Canada, the value of the variable is naturally zero, while it is greater than zero for those who immigrated to Canada from higher-trust countries, and negative for those who came from lower-trust societies. As shown in Table 5A.1 (see appendix at end of chapter), the typical immigrant respondent came from a country with a slightly lower trust score than is Canada's, and the data show immigrants from countries with widely differing trust scores. This range of experience gives the data some variance to test the footprint hypothesis, while the negative average value offers the possibility that the footprint hypothesis explains

the negative immigrant effect found in Model 1. The footprint of the origin country is indeed very deep. This is indicated by the coefficient on the "imported trust" term in Model 2. Furthermore, controlling imported trust turns the immigrant effect from negative to positive. The positive coefficient in this case is insignificant, but it suggests the possibility that, after allowing for the footprint effects of imported trust, the typical immigrant is more likely to give a *higher* than a lower trust answer than is a similarly situated Canadian-born respondent.

The footprint may be deep in the first generation, but it does not persist into later ones. Rice and Feldman (1997) were puzzled, and slightly troubled, that the footprint effect seemed as large two generations later as it was in the first generation, particularly in light of the "melting pot" image of the United States. To test the duration effect in our Canadian sample, we define a new variable ("parental trust") equal to the averaged trust score in the countries of birth of the respondents' parents minus the trust score in Canada, minus imported trust. This variable thus measures the trust-score difference between the countries of birth of the respondents and their parents. If our results were to mimic those of Rice and Feldman, we would find a positive coefficient on "parental trust" approximately equal to that on "imported trust." Instead we find that "parental trust" has only a small and insignificant effect. The Canada-United States contrast suggests, if taken literally, that "multicultural" Canada, in some important sense, absorbs immigrants into Canadian communities and values more quickly than does the United States "melting pot." This is consistent with the finding of Helliwell (2001) that the proportion of Canadians who self-describe their ethnicity as "Canadian" rather than one of a range of hyphenated alternatives is twice as high as the corresponding proportion in the United States. At the same time, it deepens the puzzle for francophones.

Network affiliations clearly matter, although some matter more than others, as indicated by Model 3. For Putnam (1993a, 1993b, 2000), trust is an asset that grows with use, and associational memberships build interpersonal trust because they encourage interaction. The success and effectiveness of regional governments in Italy is linked to the number of soccer clubs in each region; interpersonal trust has declined in America along with the popularity of bowling leagues. These are caricatures of Putnam's work, of course, although they do accurately illustrate his thesis. Individuals who participate in civic associations will tend to be more trusting, in part because these memberships provide opportunities for practising (and, perhaps, even

learning) trusting behaviours. If the strong correlation between group memberships and interpersonal trust is well documented, the direction of the causal arrow is less clear. It may be that trusting individuals are the ones who join groups (see Stolle 1998), a hypothesis that complements a growing body of work suggesting that trust in government facilitates trust in individuals, rather than the opposite dynamic (Rothstein 1998). In any case, it is clear that trust and associational memberships are closely related.

That said, not all memberships have equivalent consequences, either for the members or for the community as a whole. Putnam distinguishes between *bonding* and *bridging* social capital, where the former reinforces connections between those who are similar in, for instance, class, ethnicity, or religion, and the latter builds links across these groups (see also Gittel and Vidal 1998; Tilly 1998). Groups are not easily divided into bridging and bonding, of course. Many groups will be both (Putnam 2000, 23), bonding in certain respects and bridging in others. Nevertheless, we should consider the possibility that some groups are more bridging than others, and that these groups are more effective at enhancing generalized trust.

We present network ties at successive removes from the individual, inside the household and outside to the extended family, to friends, to neighbours, and to formal associations. Among formal associations, we distinguish three types: religious, ethnic, and all others; for each type, the indicator is the number of memberships. We distinguish the types partly for empirical reasons and partly for conceptual ones. Table 5B.1 indicates that, in an exploratory factor analysis, religious and ethnic memberships load on a different factor from all other memberships, so these two should be distinguished from the others. And common sense dictates separating religious and ethnic associations from each other. Conceptually, ethnic and religious memberships tend strongly toward "bonding." Other groups, undoubtedly, have their exclusionary sides, even if not by design. But all things considered, the inventory of "other" groups almost certainly is more inclusive, more tilted toward "bridging," than is that of groups, such as ethnic and religious ones, that are exclusive by design.

In general, the wider the radius of action a network demands, the more positive impact on interpersonal trust is had by affiliation with it. The two family variables are insignificant, for instance, but those who regularly see friends or neighbours are relatively trusting. Among organized groups, ethnic group membership does not foster trust and may even inhibit it (the coefficient is negative but insignificant), strongly hinting that such groups

indeed do not "bridge," however much they promote bonding. But "other" memberships do foster trust. So do religious groups. (Subsequent research using data from the Statistics Canada Ethnic Diversity survey suggests that social trust is favoured by participation in religious groups but is negatively related to the respondent's strength of religious belief, holding constant the level of participation. This suggests that it is the participation in these groups that provides the bridging influence.) Networks that appear to be more "bridging," then, are more positively related to various measures of interpersonal trust.

Most other variables have relatively weak effects. The age effect is curvilinear, with trust assessments most positive among those aged fifty to sixty-five and lowest among the youngest age group. In contrast to the initial finding for immigration, nothing in the realm of "visible minorities" matters for generalized trust (see Table 5.3). Individuals who belong to a visible minority do not differ from similarly situated members of the majority. Members of the majority are not affected by the visible minority percentage in their neighbourhoods, and the same is true of minority individuals themselves. No systematic effect appears from the respondent's own income, from the median income in the respondent's census district, or from income inequality in the district. The individual's assessment of whether his or her personal economic situation was likely to improve or worsen over the next twelve months does have an effect. This may reflect interpersonal differences in optimism, as discussed earlier for health effects, since the relationship also appears for each specific wallet question. Contextual effects were weak to null: average education levels and average mobility within the census area had no effect. Population density does seem to matter, but controls for "imported trust" suggest that the effect is spurious.

Some of these variables do matter for responses to the wallet question. The contrast between their lack of impact here and their importance below helps us interpret the meaning of each trust indicator. Also yielding a contrast is gender. In response to the general question, females appear to be less trusting than males. But this finding is not a universal. In a model of response to Q3, the one-sided trust question, the gender relationship is reversed. The reversal also appears in responses to the wallet question, reported below.

SPECIFIC TRUST

Responses to the more specific wallet questions, as shown in Table 5.4, diverge interestingly from an individual's response to the general question.

TABLE 5.4

Responses to wallet questions

Independent variables	Dependent variables: wallet				
	Neighbour	Police	Clerk	Stranger	
Basic demographics					
Female	0.067	0.281 ^{***}	1.324	0.277 ^{***}	1.319
Age:					
0-49	0.361 ^{***}	0.349 ^{***}	1.417	0.284 ^{***}	1.328
50-65	0.734 ^{***}	0.630 ^{***}	1.878	0.295 ^{***}	1.343
66+	0.957 ^{***}	0.825 ^{***}	2.281	0.282 ^{***}	1.326
Education:					
finished high school	0.098	0.125	0.092	0.235 ^{**}	1.265
started college/univ. finished	0.194 ^{**}	0.176	0.108	0.150	1.162
college/univ. finished	0.284 ^{***}	0.215 ^{**}	0.091	0.320 ^{***}	1.378
Religion:					
Catholic	0.092	-0.072	0.085	0.144	1.154
Protestant	0.040	0.117	0.084	0.497 ^{***}	1.644
French	-0.851 ^{***}	-0.972 ^{***}	0.093	-1.348 ^{***}	0.260
Immigrant	0.178	-0.317 ^{**}	0.144	0.026	1.026
Health	0.523 ^{***}	0.307 ^{***}	0.092	0.402 ^{***}	1.494
Resource					
oversample	-0.042	0.512 ^{***}	0.118	0.426 ^{***}	1.531
Economic situation					
minority	-0.273	0.267	0.761	-0.743 ^{***}	0.476
Visible minority (%)	-0.474 ^{**}	0.228	0.623	-0.814 ^{***}	0.443
Interaction	0.619	0.540	1.857	1.206 ^{**}	0.669
Economic outlook	0.193 ^{**}	0.087	1.213	0.259 ^{***}	0.801
Median income	0.025	3.858	1.026	-8.537 ^{***}	0.000
Income diversity	-0.034	0.574	0.966	-0.524	0.592
Education (% > HS)	0.480	0.440	1.617	0.896 ^{***}	2.451
Mobility (% 5 yrs)	-0.390 ^{**}	0.171	0.677	-0.077	0.926
Population density	-0.129 ^{***}	0.016	0.879	-0.076 ^{***}	0.927
"National trust"	1.315 [*]	0.734	3.726	-1.321 [*]	0.267
Parental trust	1.023 [*]	0.608	2.780	0.435	1.544
Divorced	-0.226 ^{***}	0.078	0.798	-0.016	0.984
Sees family	0.068	0.073	1.070	-0.116	0.891
Sees friends	0.052	0.117	1.053	0.216 [*]	0.891
Sees neighbours	0.660 ^{***}	0.077	1.935	0.100	1.105
Religious memberships	0.137	0.088	1.146	0.098	1.103
Ethnic memberships	-0.090	0.091	0.914	-0.119	0.888
Other memberships	0.072 ^{***}	0.021	1.075	0.089 ^{***}	1.093
N / PSUs	4,757 / 1,654			4,778 / 1,659	1,018
F (df)	23.14 ^{***}	(31,1623)		18.35 ^{***}	(31,1624)
				4,763 / 1,655	0.113 ^{***}
				15.25 ^{***}	(31,1618)

NOTE: See note to Table 5.3. Estimation is ordered logit.

TABLE 5-5

Summary of wallets measure

	Dependent variables: wallets measure		
	Model 1	Model 2	Model 3
Independent variables			
Basic demographics			
Female	0.225 ^{0.009}	0.233 ^{0.009}	0.253 ^{0.006}
Age:			
30-49	0.406 ^{0.009}	0.443 ^{0.009}	0.446 ^{0.009}
50-65	0.684 ^{0.009}	0.736 ^{0.009}	0.751 ^{0.009}
66+	0.918 ^{0.009}	0.981 ^{0.009}	0.964 ^{0.009}
Education:			
finished high school	0.269 ^{0.009}	0.261 ^{0.009}	0.213 ^{0.009}
started college/univ.	0.297 ^{0.009}	0.326 ^{0.009}	0.240 ^{0.009}
finished college/univ.	0.529 ^{0.009}	0.549 ^{0.009}	0.439 ^{0.009}
Religion:			
Catholic	0.021	0.085	0.061
Protestant	0.211 ^{0.009}	0.221 ^{0.009}	0.188 ^{0.009}
French	-1.394 ^{0.009}	-1.508 ^{0.009}	-1.444 ^{0.009}
Immigrant	-0.065	-0.011	0.026
Health	0.540 ^{0.009}	0.584 ^{0.009}	0.541 ^{0.009}
Resource oversample	0.210 ^{0.009}	0.227 ^{0.009}	0.256 ^{0.009}
Ethnicity			
R is visible minority	-0.525 ^{0.009}	-0.596 ^{0.009}	-0.560 ^{0.009}
Visible minority (%)	-0.696 ^{0.009}	-0.683 ^{0.009}	-0.631 ^{0.009}
Interaction	0.763 ^{0.009}	0.949 ^{0.009}	0.918 ^{0.009}
Economic situation			
Economic outlook	0.280 ^{0.009}	0.243 ^{0.009}	0.286 ^{0.009}
Median income	0.453	-0.627	-0.701
Income diversity	-0.531	-0.713	-0.764
Other contextual variables			
Education (% > high school)	1.085 ^{0.009}	1.126 ^{0.009}	1.085 ^{0.009}
Mobility (% 5 yrs)	-0.497 ^{0.009}	-0.427 ^{0.009}	-0.346 ^{0.009}
Population density	-0.091 ^{0.009}	-0.094 ^{0.009}	-0.092 ^{0.009}
"National trust"			
Imported trust		0.938	1.023
Parental trust		0.727	0.693
Networks			
Divorced		-0.141 ^{0.009}	-0.141 ^{0.009}
Sees family		0.001	0.001
Sees friends		0.232 ^{0.009}	0.232 ^{0.009}
Sees neighbours		0.327 ^{0.009}	0.327 ^{0.009}
Religious memberships		0.098	0.098
Ethnic memberships		-0.119	-0.119
Other memberships		0.094 ^{0.009}	0.094 ^{0.009}
N / PSUs	5,230 / 1,735	4,614 / 1,638	4,560 / 1,619
F (df)	44.47 ^{0.009} (22,173)	39.62 ^{0.009} (24,1614)	32.74 ^{0.009} (31,1588)

NOTE: See note to Table 5.3. Estimation is ordered logit.

Presentation of three stages for each of four questions would be tedious, so when we compare the tables, we focus on Model 3, the most fully specified variant. Table 5.5 presents the stagewise estimation for an index that combines the four wallet items (Cronbach's $\alpha = 0.66$). That table tends to replicate evidence from Table 5.3, but averaged across the four specific questions, so readers may find the summary table more accessible. As quite a bit of the response is specific to each wallet situation, the text tends to refer to Table 5.4.

Tables 5.4 and 5.5 present quite a different picture from that of Table 5.3. On one hand, most individual differences in Tables 5.4 and 5.5, especially those with cultural implications, are much weaker. On the other hand, context – the reality that persons must deal with in making empirical judgments about trust and trustworthiness – comes through much more strongly.

Only two domains of individual difference are actually stronger for specific than for generalized trust: age and gender. The contrast between the oldest and the youngest is greater, and the pattern is essentially linear. Gender differences are both greater and of the opposite sign, though these results are largely in line with our observations regarding the different versions of the generalized trust measure. While women are less trusting than are men when the balanced trust question is used, they are more trusting than are men when the question without the "cannot be too careful" rider is used (Q3 in Table 5.1; see note 2). It may be cautiousness then, rather than different estimates of trustworthiness, that drive the gender difference in the balanced question. And, as the wallet questions do not include any kind of caution rider, women demonstrate more trust in three of the four wallet questions. Finally, for immigrants, there is an interesting divergence among specific wallet situations, even with "national trust" and networks controlled, where the distinctness is in the opposite direction between situations. Immigrants appear to trust neighbours more and the police less (although the first coefficient narrowly misses statistical significance).

The major finding, however, is for the power of context, much as social capital theory would suggest. Consider first the resource-community sample. Whereas for generalized trust these communities do not stand out, for specific trust, they are very distinct, especially for trust in the police but even for trust in strangers. These communities are generally small enough, and often isolated enough, that individuals are much more likely to know their neighbours, police, and those who work in local stores. Even strangers are more likely than elsewhere to have connections to the community. Thus, it is no surprise to find that resource-community residents think that their wallet

will be returned regardless of who finds it. Moreover, the effect operates above and beyond that from population density. And density matters more for specific trust than for the general mode, as is also true for population mobility. Again, this seems as it should be, as density and mobility index experiential factors more than they do cultural ones. Residents of high-mobility and high-density communities are less likely to know their neighbours and, hence, are less likely to have forged the reciprocal trust that would assure a wallet's return. The owner would be more easily found, and his or her interests more likely to be valued by the finder, in neighbourhoods with less mobility.

Residents of communities with above-average levels of education think their wallets are more likely to be returned if found by neighbours, police, or strangers. This is in addition to the positive effect from the individual's own level of education. Thus, those with more education are regarded by their neighbours as more likely to return lost wallets. It is interesting that this contextual effect of education is stronger in the case of the more specific wallet question than it is in the generalized trust question. This suggests that the ambit of the general trust question is geographically broad. In contrast, expectations of honesty on the part of persons living and working nearby rest, almost by definition, on a smaller spatial range. A corollary is that local communities' average education levels carry more explanatory value for the wallet questions than for generalized trust.

Most striking, however, is ethnicity and ethnic context. Even with imported trust and networks controlled, coefficients on visible minority status are consistently negative, if not always significant by the conventional criterion. Particularly striking is the coefficient on trust in the police. Given all the controls, and given the weak-to-null relationships in the other situations, it is natural to wonder whether distrust in the police is specific to the Canadian experiences of members of visible minorities. Strictly speaking, the "visible minority" coefficient in each estimation captures the impact of minority status in neighbourhoods where no one else belongs to a visible minority. This is so because the setup also includes an interaction term combining the respondent's own majority/minority status with the neighbourhood's visible-minority percentage. The presence of an interaction term also means that the next coefficient, for the impact of the local percentage of visible minority residents, indexes the impact of ethnic context on members of the *majority*. And members of the majority are sensitive to context: the larger the local minority percentage the more distrustful are members of the "invisible" majority. The power of context is roughly the same for trust in neighbours,

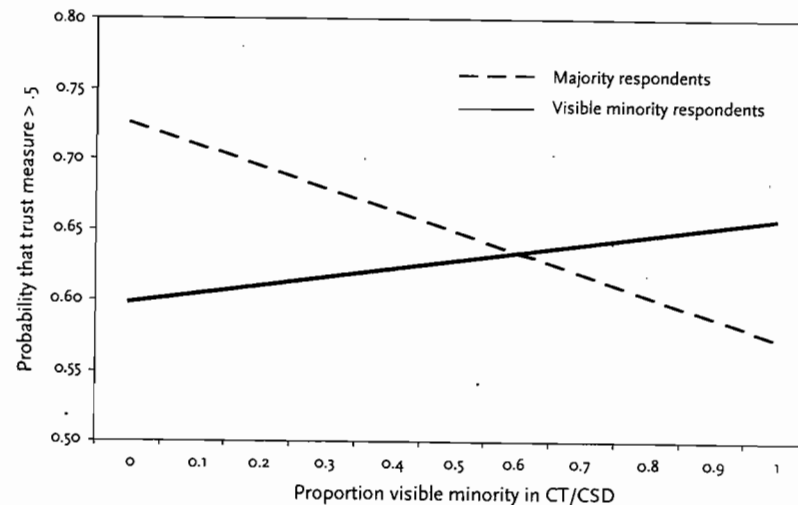
police officers, and grocery clerks. Interestingly, it is of no significance for the perceived trustworthiness of strangers. Finally, the interaction term estimates the difference between minority and majority persons in reaction to ethnic context; the actual effect for minority persons is the sum of the two coefficients. The interaction is always positive. It is statistically significant only once, but the patterns always converge: the positive value on the interaction is greater than is the negative value on the main effect. The indication is that visible minority respondents roughly mirror majority ones: as minority numbers grow, members of the minority feel more trusting. The strongest interaction is for trust in the police. So the strong negative sign on the individual-level term, whether or not the respondent belongs to a visible minority, indicates that minority persons are particularly distrustful of the police where their own numbers are small. As the minority group becomes the local majority, perceptions of the police become much more positive. Although there are strong indications of a similar gradient for other potential objects of trust, the police finding is the outstanding one.

Figure 5.1 translates "wallet" coefficients for ethnicity, ethnic context, and their interaction into real-world values. The figure draws upon the estimation for the summary "wallets" measure from Table 5.5 and presents results based on changes in these three variables, holding all other variables at their means. The vertical axis represents the probability that the respondent is, on balance, trusting. Where visible-minority respondents are relatively isolated in their neighbourhoods, they are much less trusting – much less likely to believe that the lost wallet would be returned – than are their majority neighbours. As the visible minority share in the neighbourhood grows, the trustfulness of majority respondents shrinks. In contrast, minority respondents become mildly more trusting. The majority/minority difference reverses when 60 percent of the neighbourhood's residents belong to a visible minority. As a practical matter, relatively few members of the majority live in any such place. In our sample, the median member of the majority lives in a neighbourhood with a visible-minority share of only 3 percent. In contrast, the median visible-minority person lives in a neighbourhood where the visible-minority share is 37 percent. In such a neighbourhood, majority/minority trust differences are small.

While ethnic and neighbourhood effects are stronger for the wallet measure, "national trust" effects are weaker. They are not entirely absent, to be sure, but they never do better than teeter on the brink of statistical significance.

FIGURE 5.1

The effects of ethnicity on trust



And the values for "imported trust," in particular, are only about one-third the size of the generalized-trust coefficients. The difference between the "imported" and "parental" trust effects is smaller here than it is for generalized trust. So there is some suggestion that situational trust expectations persist. This seems to fly in the face of the very logic of the concept. But too much should not be made of the finding. For three of the four wallet items, the "parental trust" coefficient is smaller than it is in the generalized trust estimations.

Interpretation of the difference in "national trust" effects between the situational and the generalized estimation requires care. The easiest interpretation is that the difference is a measurement artifact. After all, the data from which "national trust" scores are derived are national means on precisely the measure that serves as the dependent variable in Table 5.3. And this measurement difference may indeed account for some of the difference in estimated effects. We doubt that this accounts for all of it, however. The divergence

also accords with robust common sense. The rest of the pattern in Table 5.4 suggests that respondents employ information and experience from their Canadian milieu to derive situational expectations. This leaves less room for importing trust.

Finally, network effects matter less in the individual wallet estimations than in the generalized one. Individual coefficients stand out, of course. Seeing neighbours helps one trust neighbours – and strangers as well. Seeing friends helps one trust police officers and store clerks, although it is hard to think why it should help with these and not others. Membership in “other” groups has the most consistent effect and one whose power is roughly the same here as in Table 5.3. But the overall impact of network connections is not impressive. Partly, this reflects the absence in these estimations of one of the most powerful effects in the generalized one: from religious groups. The religious contrast goes right to the point, however. Its power in Table 5.3 and its weakness here indicates how the generalized question is linked to moral presuppositions.

Conclusion

Much remains to be done, obviously. We are conscious that key variables, such as optimism, are (necessarily) missing from our data and may account for some of the patterns we interpret substantively. However, the inclusion of the answers to the health question, which also are likely to be affected strongly by inherent optimism, helps to ensure that the other coefficients are less likely to be getting their power through a common correlation with the unmeasured optimism of the respondents. We essentially finesse questions of causal order, such as whether memberships induce trust or trust facilitates joining. Even so, the findings are rich and highly suggestive.

One clear indication is that where the generalized trust measure reflects cultural learning, the wallet questions call more upon experience and seem more plausible as indicators of the respondent’s strategic expectations and the trustfulness he or she is likely actually to exhibit. Generalized trust is powerfully affected by education, by the cultural pattern of new Canadians’ countries of origin, and by how involved the respondent is with religious organizations. Various aspects of community and neighbourhood context that seem plausible as factors in trust or distrust make little difference, in fact, for responses to the generalized measure. Generalized trust seems to be the sort of thing one learns in school or in church.

In contrast, neighbourhood context is very important – and in subtle ways – for the wallet measure. Residents of small, coherent resource communities stand out as peculiarly trusting, even of strangers. Neighbourhood density, mobility, and average education levels – all plausible factors in interpersonal trust – matter greatly to respondents’ empirical beliefs about trustworthiness in specific trust situations. These factors matter hardly at all to generalized trust. Most striking, though, is the effect of diversity. If one belongs to a visible minority but is surrounded by members of the majority, one is less trusting than are neighbours in the “invisible” majority that a wallet will be returned, even by a neighbour. After all, in such a place, the neighbour may be ethnically very different from the visible-minority person in question. And a visible-minority person in such a place will be especially distrustful of the police. As the visible-minority percentage in the neighbourhood grows, so does the sense of trust that members of the visible minority repose in those around them. This is especially so for trust in the police. Conversely, members of the majority become *less* trustful.

These generalizations may be uncomfortable in themselves, but they are plausible and suggestive. We would never have reached them had we not unpacked the idea of trust. Different measures suit different purposes. Analyses of individual trust items suggest that generalized trust is a useful indicator. It still needs conceptual exploration, and this will require detailed empirical investigation. The centrality of church associations to generalized trust hints at the moralism that Uslaner (2002) believes to pervade the measure, for instance. But the continued power of “national trust,” even if it indicates that generalized trust reflects experiences that are arguably no longer relevant, hardly seems like a story about moralizing. After all, field experiments with wallets, reported by Knack (2001), were the original inspiration for our battery of wallet questions. Response to the generalized question is related to response to the specific wallet questions. But the relationship is loose. Both kinds of question are necessary to triangulate the social space of trust.

Meanwhile, our analysis of trust has paid an unexpected dividend. The overall pattern may be read to vindicate the Canadian story of multiculturalism. It is true that the experiential world of the wallet questions unpacks a structure of implicit group antagonism. The story is mitigated, however, by the reality of residential distribution: most members of the “invisible” majority go about their business in neighbourhoods full of people like them.

The same is true, although not quite as one-sidedly so, for members of visible minorities. More important is what Canada seems to do in the realm of generalized interpersonal trust. Although new Canadians' trust levels reflect their countries of origin, such origin differences do not last past the first generation. It is tempting to infer that, by recognizing the multiplicity of Canadians' origins, we facilitate their acceptance of Canadian norms. Ironically, the Canadian mosaic seems to be a more powerful force for integration than is the US melting pot. And country-of-origin differences account for all differences between immigrants and natives. Indeed, when origins are accounted for, new Canadians are *more* trusting in the general sense than are their Canadian-born counterparts.

APPENDIX A: VARIABLE DESCRIPTIONS

The Equality, Security, and Community survey includes questions on demographics, economic situation, civic associations, political opinions, social policy preferences, and, of course, interpersonal trust. The sample has three basic components: a national probability sample, a metropolitan oversample weighted toward neighbourhoods with a high percentage of visible minority residents, and a BC resource community oversample. Merged with these data are a variety of contextual variables at the census tract or subdivision level from the 1996 Canadian Census, and aggregate results from the trust question asked in the World Values and European Values Surveys.

This appendix lists the details for each variable used in preceding analyses. Where necessary, question wording is included. The table that follows includes basic descriptors for these variables.

BASIC DEMOGRAPHICS

Female: dummy variable = 1 if respondent is female.

Age: dummy variables for 30 to 49, 50 to 65, 66 and over; residual category is < 30 yrs.

Education: dummy variables for "finished high school," "started college or university," and "finished college or university"; residual category is "did not finish high school."

Religion: dummy variables for Catholic and Protestant; residual category is "other."

French: dummy variable = 1 if respondent speaks French at home.

Immigrant: dummy variable = 1 if respondent is an immigrant.

Health: self-reported health, based on the following question: "Compared to others your age, would you describe your health as excellent, very good, good, fair, or poor?" rescaled from 0 to 1 where 1 is excellent and 0 is poor.

Resource oversample: dummy variable = 1 if respondent is part of the resource oversample.

ETHNICITY

Visible minority: dummy variable = 1 if respondent is a visible minority, based on the Census definition (includes all individuals except aboriginals who are non-Caucasian in race or colour).

Visible minority percent: percentage of respondents' CT/CSD who are visible minorities, based on the Census definition (as above).

ECONOMIC SITUATION

Economic outlook: based on the following question: "What about the next twelve months? Do you feel your household's economic situation will improve, stay about the same, or get worse? = 1 if respondent feels that their household's economic situation will improve over the next twelve months, = .5 if they feel it will stay about the same, and = 0 if they feel it will get worse.

Median household income (\$100,000s): median household income in respondents' CT/CSD, converted to \$100,000s.

Income diversity: proportion of households in respondents' CT/CSD earning less than \$10,000 and more than \$90,000 (about the tenth and ninetieth percentiles for the majority of census subdivisions).

OTHER CONTEXTUAL VARIABLES

Education: proportion of individuals in respondent's CT/CSD with more than a high school diploma (started, but not necessarily finished, college or university).

Mobility: proportion of individuals in respondent's CT/CSD who moved in the five years previous to the 1996 Census.

Population density: number of individuals divided by the number of square kilometres for the individual's CT/CSD. This variable is heavily skewed to the right, so the log values are used.

NETWORKS

Divorced: dummy variable = 1 if respondent is divorced or separated.

Sees family: dummy variable = 1 if respondent sees family members (living elsewhere) once a month or more.

Sees friends: dummy variable = 1 if respondent sees close friends once a month or more.

Sees neighbours: dummy variable = 1 if respondent talks with neighbours once a month or more.

Religious memberships: dummy variable = 1 if respondent is a member of any groups related to their religion.

Ethnic memberships: dummy variable = 1 if respondent is a member of any groups related to their ethnicity.

Other memberships: dummy variable = 1 if respondent is a member of any other groups (service clubs, rec groups, political, youth, cultural, help).

"NATIONAL TRUST"

Imported trust: the national average of responses to the generalized trust question in respondents' country of origin, minus the Canadian national average. National averages were drawn first from the Third Wave of the World Values Survey; missing values were filled in using (in this order) the 2000 European Values Survey and the Second Wave of the World Values Survey.

Parental trust: the average of the two national averages of responses to the generalized trust question in respondents' parents' countries of origin, minus the Canadian national average, and minus Imported Trust. National averages are drawn from the same sources as above.

TRUST AND MEMBERSHIPS

See text.

TABLE 5A.1

Descriptives

Variable	N	Mean	Standard deviation	Minimum	Maximum
Female	6,579	0.543	0.498	0.000	1.000
Age	6,579	1.241	0.974	0.000	3.000
Education	6,448	2.781	1.158	1.000	4.000
Religion	6,014	1.006	0.793	0.000	2.000
French	6,579	0.138	0.345	0.000	1.000
Immigrant	6,520	0.214	0.410	0.000	1.000
Health	6,514	0.549	0.331	0.000	1.000
Resource	6,579	0.217	0.412	0.000	1.000
Visible minority	6,579	0.092	0.289	0.000	1.000
Prop. visible minority	6,569	0.121	0.149	0.000	0.519
Economic outlook	6,351	0.590	0.321	0.000	1.000
Median household income (\$100,000s)	6,569	0.045	0.010	0.000	0.102
Income diversity	6,431	0.179	0.060	0.000	0.618
Education (prop > HS)	6,569	0.510	0.088	0.000	0.910
Mobility	6,569	0.444	0.121	0.000	0.831
Population density (log)	6,570	5.517	2.804	-5.186	9.642
Divorced	6,579	0.207	0.405	0.000	1.000
Sees family	6,543	0.765	0.424	0.000	1.000
Sees friends	6,541	0.915	0.279	0.000	1.000
Sees neighbours	6,512	0.804	0.397	0.000	1.000
Religious memberships	6,579	0.149	0.356	0.000	1.000
Ethnic memberships	6,579	0.122	0.327	0.000	1.000
Other memberships	6,579	1.473	1.401	0.000	6.000
Imported trust	5,996	-0.015	0.057	-0.381	0.176
Parental trust	5,658	-0.016	0.053	-0.347	0.333

NOTE: Results based on combined first wave, metro oversample, and resource community oversample, unweighted.

APPENDIX B: MEMBERSHIPS

The ESC survey asks about membership in eight distinct types of groups:

- 1 How many service clubs, such as Lions or Meals on Wheels, do you belong to?
- 2 How many recreational groups, such as sports leagues or clubs, music or hobby clubs, or exercise classes are you involved in?
- 3 How many organizations active on political issues, such as the environment or taxpayers' rights, do you belong to?
- 4 Sometimes people give time to various types of organizations. For instance, how many youth-oriented groups, such as Girl Guides or minor hockey, have you given time to in the last twelve months?
- 5 How about organizations providing cultural services to the public, such as a museum or music festival. How many of these have you given time to in the last twelve months?
- 6 How about organizations that help people, such as the Cancer Society or a food bank? How many of these have you volunteered time to in the last twelve months?
- 7 How many groups directly attached to your place of worship, such as a charitable group, are you a member of?
- 8 How many organizations connected with your own nationality or ethnic or racial group are you a member of?

The bridging-bonding dichotomy suggests that religious and ethnic groups might be distinguished from the other six types of groups. Religious and ethnic groups will certainly draw together people of the same religion or ethnicity, after all. Other groups might have a narrow social or economic focus (take, for instance, a country club), but not necessarily. By the same token, religious and ethnic groups may bring together people who share a religion or ethnic origin but have little else in common. Such groups may be bridging social and income gaps even as they are also bonding those in the same religious or ethnic group.

Unfortunately, we do not have detailed information about each of the groups in which respondents are members. We can nevertheless look at the relationships between group memberships, and predictors of group membership as indicators of the general membership of the eight different groups.

Table 5B.1 presents an unrotated principal components analysis of the eight different memberships variables. It is striking that the first six groups load on the first factor, while ethnic and religious groups load on the second. Results suggest a division between religious and ethnic (bonding?) groups, on one hand, and all other (bridging?) groups, on the other hand.

In Table 5B.2, we report equations estimating the number of organizations each person belongs to, with the types of organization divided different ways. The first column relates to ethnic organizations, the second to religious organizations, the third to all other organizations, and the fourth to total memberships, being the sum of ethnic, religious, and all other.

The first demographic variable considered is gender. Males are more likely than females to belong to ethnic groups, and females more likely to belong to religious groups. Among the types of other groups, Table 5B.3 shows females being less likely than males to be involved in service clubs, recreational groups, and political groups and more likely to be involved in cultural and help groups.

Memberships in ethnic and religious groups rise with age, while those in other groups follow more varied patterns. Memberships in service clubs and political groups rise with age, while memberships in recreational and youth groups fall with age. Help group memberships are highest among those aged fifty to sixty-five. Since we have survey results only from one year, we are unable to tell what patterns of cohort and life-cycle effects are being captured by these age variables, so we will not risk overinterpretation of the observed patterns.

Memberships in almost all types of organizations are more numerous among those with more education. For all eight types of organization, the positive effect of education on memberships is significant, and, in each case, it grows with the level of education. Going on to complete a higher level of education is associated with greater involvement across the whole spectrum of organization types.

TABLE 5B.1

Factor analysis of associational memberships

Membership type	Factor	
	1	2
Service	0.481	0.037
Recreation	0.585	-0.307
Political	0.448	-0.094
Youth	0.593	-0.301
Cultural	0.540	-0.081
Help	0.603	-0.113
Ethnic	0.327	0.696
Religious	0.422	0.633

NOTE: N = 6,579. Cells contain factor loading from a principal components analysis, unrotated, using membership dummy variables in the combined first wave, metro oversample, and resource community sample, unweighted.

TABLE 5B.2

Sources of associational memberships (ethnic, religious, and other)

	Independent variables			Dependent variables (number of memberships)		
	Ethnic	Religious	Other	Religious	Other	All
Basic demographics						
Female	-0.036 ^{***} (0.016)	0.034 [*] (0.018)	-0.050 (0.072)	0.034 [*] (0.018)	-0.050 (0.072)	-0.053 (0.082)
Age:						
30-49	0.004 (0.021)	0.036 [*] (0.019)	-0.040 (0.097)	0.036 [*] (0.019)	-0.040 (0.097)	-0.000 (0.109)
50-65	0.030 (0.025)	0.083 ^{***} (0.027)	-0.235 ^{***} (0.114)	0.083 ^{***} (0.027)	-0.235 ^{***} (0.114)	-0.122 (0.129)
66+	0.076 ^{***} (0.030)	0.241 ^{***} (0.036)	-0.226 ^{**} (0.123)	0.241 ^{***} (0.036)	-0.226 ^{**} (0.123)	0.091 (0.144)
Education:						
finished high school	0.016 (0.024)	0.024 (0.029)	0.648 ^{***} (0.103)	0.024 (0.029)	0.648 ^{***} (0.103)	0.688 ^{***} (0.119)
started college/univ.	0.054 [*] (0.028)	0.057 [*] (0.030)	1.085 ^{***} (0.137)	0.057 [*] (0.030)	1.085 ^{***} (0.137)	1.196 ^{***} (0.147)
finished college/univ.	0.069 ^{***} (0.025)	0.100 ^{***} (0.029)	1.361 ^{***} (0.101)	0.100 ^{***} (0.029)	1.361 ^{***} (0.101)	1.530 ^{***} (0.109)
Religion:						
Catholic	0.111 ^{***} (0.026)	0.168 ^{***} (0.019)	0.079 (0.106)	0.168 ^{***} (0.019)	0.079 (0.106)	0.357 ^{***} (0.115)
Protestant	0.013 (0.022)	0.220 ^{***} (0.025)	0.125 (0.103)	0.220 ^{***} (0.025)	0.125 (0.103)	0.358 ^{***} (0.114)
French	-0.088 ^{***} (0.025)	-0.108 ^{***} (0.024)	-0.846 ^{***} (0.117)	-0.108 ^{***} (0.024)	-0.846 ^{***} (0.117)	-1.041 ^{***} (0.131)
Immigrant	0.108 ^{***} (0.032)	0.031 (0.025)	-0.602 ^{***} (0.120)	0.031 (0.025)	-0.602 ^{***} (0.120)	-0.463 ^{***} (0.140)
Health	0.015 (0.029)	0.034 (0.027)	0.625 ^{***} (0.127)	0.034 (0.027)	0.625 ^{***} (0.127)	0.674 ^{***} (0.149)
Resource oversample	0.299 ^{***} (0.082)	0.111 (0.073)	-0.176 (0.265)	0.111 (0.073)	-0.176 (0.265)	0.233 (0.334)
Ethnicity						
R is visible minority	0.124 ^{**} (0.057)	0.027 (0.059)	-0.053 (0.258)	0.027 (0.059)	-0.053 (0.258)	0.098 (0.294)
Visible minority (%)	-0.103 (0.158)	-0.020 (0.152)	-0.202 (0.534)	-0.020 (0.152)	-0.202 (0.534)	-0.325 (0.656)
Interaction	0.036 (0.030)	-0.047 (0.030)	0.033 (0.129)	-0.047 (0.030)	0.033 (0.129)	0.022 (0.139)
Economic situation						
Economic outlook	0.236 (0.989)	-0.816 (0.916)	-0.386 (4.829)	-0.816 (0.916)	-0.386 (4.829)	-0.966 (5.493)
Median income	0.104 (0.163)	-0.190 (0.144)	-0.233 (0.738)	-0.190 (0.144)	-0.233 (0.738)	-0.319 (0.832)
Income diversity	-0.290 ^{***} (0.117)	-0.018 (0.105)	1.349 ^{***} (0.575)	-0.018 (0.105)	1.349 ^{***} (0.575)	1.041 (0.652)
Other contextual variables						
Education (% > high school)	0.016 (0.048)	-0.093 [*] (0.048)	-0.904 ^{***} (0.222)	-0.093 [*] (0.048)	-0.904 ^{***} (0.222)	-0.981 ^{***} (0.252)
Mobility (% 5 yrs)	0.003 (0.004)	0.002 (0.004)	-0.004 (0.021)	0.002 (0.004)	-0.004 (0.021)	0.001 (0.024)
Population density	-0.039 (0.024)	-0.050 ^{***} (0.022)	-0.027 (0.102)	-0.050 ^{***} (0.022)	-0.027 (0.102)	-0.116 (0.119)
Constant	0.135 ^{***} (0.058)	0.057 (0.053)	1.173 ^{***} (0.259)	0.057 (0.053)	1.173 ^{***} (0.259)	1.365 ^{***} (0.285)
Observations	5,621	5,621	5,621	5,621	5,621	5,621
R ²	0.05	0.05	0.07	0.05	0.07	0.06

NOTE: Cells contain coefficients from an SLO estimation using corrected standard errors. Results are based on combined first wave, metro oversample, and resource community sample, unweighted.
^{*} $p < .10$; ^{**} $p < .05$; ^{***} $p < .01$.
 All coefficients significant at $p < .10$ are in bold.

TABLE 5B.3

Sources of associational memberships (service clubs and recreation, political, youth, cultural, and help groups)

Independent variables	Dependent variables (number of memberships)					
	Service clubs	Rec. groups	Political	Youth	Cultural	Help
Basic demographics						
Female	-0.033 ^{ns} (0.015)	-0.112 ^{ns} (0.030)	-0.028 ^{ns} (0.016)	-0.037 (0.025)	0.035 ^c (0.021)	0.124 ^{ns} (0.025)
Age:						
30-49	0.050 ^{ns} (0.016)	-0.136 ^{ns} (0.042)	0.002 (0.018)	0.108 ^{ns} (0.033)	-0.054 ^{ns} (0.026)	-0.010 (0.032)
50-65	0.124 ^{ns} (0.021)	-0.320 ^{ns} (0.045)	0.053 ^{ns} (0.024)	-0.183 ^{ns} (0.045)	-0.015 (0.034)	0.106 ^{ns} (0.043)
66+	0.250 ^{ns} (0.027)	-0.243 ^{ns} (0.052)	0.086 ^{ns} (0.032)	-0.328 ^{ns} (0.043)	-0.041 (0.033)	0.050 (0.047)
Education:						
finished high school	0.078 ^{ns} (0.025)	0.255 ^{ns} (0.041)	0.055 ^{ns} (0.016)	0.110 ^{ns} (0.036)	0.065 ^{ns} (0.024)	0.084 ^{ns} (0.038)
started college/univ.	0.110 ^{ns} (0.031)	0.372 ^{ns} (0.051)	0.108 ^{ns} (0.022)	0.231 ^{ns} (0.044)	0.159 ^{ns} (0.030)	0.104 ^{ns} (0.048)
finished college/univ.	0.101 ^{ns} (0.020)	0.452 ^{ns} (0.045)	0.177 ^{ns} (0.019)	0.240 ^{ns} (0.035)	0.189 ^{ns} (0.023)	0.201 ^{ns} (0.039)
Religion:						
Catholic	0.013 (0.018)	0.051 (0.041)	-0.095 ^{ns} (0.022)	0.098 ^{ns} (0.039)	-0.043 (0.027)	0.055 ^c (0.032)
Protestant	0.024 (0.020)	0.083 ^c (0.042)	-0.091 ^{ns} (0.022)	0.088 ^{ns} (0.037)	-0.062 ^{ns} (0.027)	0.083 ^{ns} (0.031)
French	-0.005 (0.025)	-0.287 ^{ns} (0.044)	0.001 (0.024)	-0.284 ^{ns} (0.039)	0.030 (0.033)	-0.240 ^{ns} (0.041)
Immigrant	-0.027 (0.021)	-0.277 ^{ns} (0.052)	-0.047 ^{ns} (0.022)	-0.162 ^{ns} (0.034)	0.009 (0.033)	-0.098 ^{ns} (0.034)
Health	0.033 (0.024)	0.353 ^{ns} (0.055)	0.039 ^c (0.022)	0.150 ^{ns} (0.042)	0.038 (0.035)	0.012 (0.042)
Resource						
oversample	0.022 (0.050)	0.038 (0.111)	-0.116 ^{ns} (0.032)	-0.004 (0.084)	0.018 (0.057)	-0.135 (0.089)
Ethnicity						
R is visible						
minority	-0.030 (0.045)	0.050 (0.117)	0.004 (0.061)	-0.033 (0.089)	0.056 (0.077)	-0.100 (0.082)
Visible						
minority (%)	0.015 (0.095)	-0.185 (0.206)	0.022 (0.072)	-0.087 (0.167)	-0.101 (0.128)	0.135 (0.171)
Interaction	-0.013 (0.023)	0.007 (0.054)	0.055 ^{ns} (0.027)	-0.057 (0.044)	0.005 (0.034)	0.037 (0.045)
Economic situation						
outlook	0.707 (0.805)	1.765 (2.098)	-0.907 (1.026)	2.198 (1.601)	-2.792 ^{ns} (1.178)	-1.357 (1.610)
Median income	0.015 (0.131)	-0.217 (0.326)	0.244 (0.192)	-0.085 (0.233)	-0.000 (0.159)	-0.190 (0.247)
Income diversity	-0.021 (0.099)	0.567 ^{ns} (0.206)	0.141 (0.111)	0.164 (0.198)	0.202 (0.146)	0.296 (0.185)
Other contextual variables						
Education (% > high school)	-0.152 ^{ns} (0.042)	-0.200 ^{ns} (0.084)	-0.020 (0.048)	-0.213 ^{**} (0.085)	-0.122 ^{**} (0.051)	-0.198 ^{ns} (0.076)
Mobility (% 5Yrs)	-0.001 (0.004)	0.006 (0.009)	-0.005 (0.004)	-0.006 (0.008)	-0.004 (0.005)	0.007 (0.007)
Population density	-0.004 (0.023)	0.114 ^{ns} (0.043)	0.039 (0.024)	0.003 (0.044)	-0.024 (0.030)	-0.156 ^{ns} (0.032)
Constant	0.044 (0.046)	0.283 ^{ns} (0.099)	0.034 (0.052)	0.316 ^{ns} (0.088)	0.234 ^{ns} (0.068)	0.261 ^{ns} (0.089)
Observations	5,621	5,621	5,621	5,621	5,621	5,621
R ²	0.03	0.07	0.03	0.06	0.02	0.03

NOTE: See note to Table 5B.2.

As for religion, respondents who describe themselves as either Protestant or Catholic are more likely to be involved in religious and youth groups (plus ethnic organizations in the case of Catholics) than are other respondents, while being less likely to be involved in political or cultural organizations. As for language, those whose first language is French are less likely to be involved in ethnic, religious, recreational, youth, and help groups. Immigrants are more likely to be involved in ethnic groups, and less likely to be involved in recreational, political, youth, and help groups. Visible minority respondents are more likely to be involved in ethnic and religious groups and less likely to be involved in political groups. All of these are, of course, partial effects holding constant all the other variables that enter the equations.

The variables with italicized titles refer to characteristics of the census tracts or subdivisions in which individuals live rather than to their own circumstances. Including both individual and community-level effects allows us to measure possible interaction effects. For example, we include whether the individual is visible minority and a contextual variable reporting the percentage of visible minority residents in the respondent's census division. We find that visible minority respondents are significantly more likely to be involved in ethnic and religious associations. Holding individual characteristics constant, those living in communities with high visible minority proportions are (insignificantly) more likely to be members of ethnic and religious organizations. When we add an interaction variable, it attracts a negative coefficient of about the same size as the individual effect. Thus, visible minority respondents are more likely to be members of ethnic and religious associations, especially if they live in census districts with low visible-minority proportions. One line of logic supporting these results is fairly straightforward: an ethnic organization is likely to have less to offer where ethnic diversity is higher, if this implies that the contacts and bonding opportunities are equally likely to be provided in offices, factories, and shops as in the association meetings. This logic would be stronger if there were more specificity in the ethnic mix data, since an increase in the simple measure of visible minority proportions does not imply greater proportions of those from the ethnic groups that are described in our membership questions.

Income is another variable through which we look for individual and contextual effects. We found little evidence of individual income effects, while our contextual effects include both the median income and the income diversity (as measured by the prevalence in the census district of those in either the first or the tenth decile of the overall population). In general, neither median income nor income diversity has any systematic relation with memberships. The only exception is that memberships in cultural organizations are lower, other things equal, in census districts with lower average incomes.

The final contextual variables include average education levels, population mobility, and population density. Education levels are included to provide a test of the Nie, Junn, and Stehlik-Barry (1996) hypothesis that membership activity rises

with relative rather than absolute education levels. They argue that the oft-found positive linkage between individual-level education and participation is actually based on relative education, which implies that, if both individual-level and aggregate education levels are used in the same equation, they will have opposite signs and roughly equivalent magnitudes. This is, indeed, what they reported to find in their research. However, when Helliwell and Putnam (1999) repeated their analysis with more regionally specific and time-specific peer groups, the presumed negative effect of average education levels disappears for almost all types of organizations and becomes positive for some. That research was all based on US data. The ESC survey allows us to test the same hypothesis with Canadian data and to use a finer grid for comparative education than was possible with the US data. Our results show no significant effects of average education levels on membership levels (once each individual's own level of education has been taken into account), thus supporting the Helliwell and Putnam rather than the Nie et al. results for the United States. In the Canadian data, it would appear that the positive individual-level effects found to link education to social participation are not due to relative education and, hence, do flow through to the aggregate level (since they are neither offset nor augmented by significant community-level effects).

Population mobility, which we measure as the proportion of the population in the respondent's census district who have moved in the preceding five years, has a significant effect only in the case of religious organizations, where the effect is negative. The effects of mobility on memberships are less clear. Joining may help to build social structures for the newly arrived, and among those living temporarily in a community. On the other hand, more stable communities tend to foster increased interactions of many sorts, including, for example, the formation of new additional community-level organizations to meet individual and community needs. Our results reflect this ambiguity.

Population density may also have contrasting effects. In high density communities, typified by large urban areas, there are many more specialized organizations available to meet all interests, thus increasing the likely number of memberships. On the other hand, those living and working in large urban areas are less likely to know their neighbours and may live far from their places of work, thus spending more of their time commuting. In our Canadian sample, we find the partial effect of population density on membership activities to be generally insignificant. Memberships in political groups are less frequent in urban areas, but, in other cases, there are no significant effects.

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NOTES

- 1 All analyses in this chapter use respondents from all three components of the ESC survey, described in detail in Appendix A. The variation across questions in number of cases was a result of CATI error. By the time this was discovered, it was too late to change the programming for the main sample. All respondents in the Vancouver, Toronto, and Montreal metropolitan oversamples and in the BC resource community sample, which went to field after the main sample, received all four questions.
- 2 Q3 and Q4 split Q1 into its components. In effecting this split, we hoped to shed light on an interesting feature of the split results that first appeared when Q1 and Q3 were asked of different halves of the 1983 US General Social Survey sample. As reported in Helliwell and Putnam (1999), men are significantly more trusting than women when asked Q1, while women are more trusting than men when asked Q3. Our supposition is that women were more inclined to be cautious, for a variety of possible reasons. We too find females to be less trusting when asked the balanced trust question (Q1), but more trusting than males when faced with the simpler question (Q3). Our survey also supports the US result that affirmative responses were much more likely to Q1 than to Q3 regardless of gender.
- 3 The indicators with the weakest link to an overall trust scale are Q2 and Q4, two of the unipolar agree-disagree items.
- 4 When the axes are rotated, the generalized and the wallet items load weakly on separate factors. The rotated solution does not obviously dominate the unrotated one, and it is natural to wonder how much of the separation is an artifact of response coding.