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When Does Diversity Erode Trust? Neighborhood Diversity, Interpersonal Trust and the Mediating Effect of Social Interactions

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This article contributes to the debate about the effects of ethnic diversity on social cohesion, particularly generalized trust. The analysis relies on data from both the 'Citizenship, Involvement, Democracy' (CID) survey in the US and the 'Equality, Security and Community Survey' (ESCS) in Canada. Our analysis, one of the first controlled cross-national comparisons of small-unit contextual variation, confirms recent findings on the negative effect of neighborhood diversity on white majorities across the two countries. Our most important finding, however, is that not everyone is equally sensitive to context. Individuals who regularly talk with their neighbors are less influenced by the racial and ethnic character of their surroundings than people who lack such social interaction. This finding challenges claims about the negative effects of diversity on trust – at least, it suggests that the negative effects so prevalent in existing research can be mediated by social ties.

Research on the sources of social capital has recently turned to the role of diversity, and specifically to the potentials or problems that it poses for civic engagement, social connectedness and interpersonal trust and reciprocity. The focus has generally been on the difficulties caused by ethnic or racial diversity. A growing body of evidence suggests that localities, neighborhoods, regions or states and even countries with more ethnic, racial and socio-economic diversity experience substantially more problems with the creation of various kinds of social capital, cooperation, trust and support necessary for collective action critical to social welfare programs.

These findings are reflected in the popular media. Changing immigration patterns, perceptions of the increase in the numbers of refugees and asylum seekers in Europe, the rising visibility of ethnic and racial minorities, as well as increasing socio-economic inequalities in North America, have contributed to an expanding debate about the consequences of these developments for community and social cohesion. Journalists, policy makers and ideologues have repeatedly expressed fears of an increasingly complex and multi-ethnic world. David Goodhart (2004), editor of *Prospect* magazine, puts it starkly: 'Britain can have either mass immigration or generous welfare, but not both – and of the two, welfare is better'.

Academic and public attention has recently been drawn to new research by Harvard professor Robert Putnam, who has confirmed in an extensive US-based

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analysis that ethnic and racial neighborhood diversity exerts negative short-term effects on trust in other people, as well as many other civic attitudes and behaviors (Putnam, 2007). We contribute to this debate by expanding the analysis to compare the influence of ethnic/racial diversity in US as well as Canadian neighborhoods using the 2005 'Citizenship, Involvement, Democracy' survey (CID) in the US (Howard *et al.*, 2005), and the 2002/3 second wave of the 'Equality, Security and Community Survey' (ESCS) in Canada. Since the nature of racial/ethnic diversity in these two countries is quite different, it is not obvious that we might expect the same patterns across these two cultures. We nevertheless find similar results in each: particularly for racial/ethnic majorities, neighborhood-level diversity is associated with decreasing levels of interpersonal trust in both US as well as Canadian localities.

We then go one step further and explore the micro-level dynamic underlying these contextual effects, drawing on the literatures on inter-group relations, social capital and the contact hypothesis. A diverse neighborhood context may pose a lesser problem for those who have regular, personal interactions with their neighbors. That is, if you have social ties to others in your diverse neighborhood, the diversity of that neighborhood may not be as threatening to your level of interpersonal trust as for someone who lives in a diverse neighborhood without such social interactions. We take advantage of the detailed questions on personal ties in the CID survey to explore this heterogeneity in the effect of neighborhood diversity. When census-level diversity is replaced with individuals' diversity in their neighborhood networks, the negative effects on trust are mediated by the regularity with which individuals interact with their neighbors. Social ties, it appears, can effectively overcome the feeling of being threatened by diversity. The implication is that the negative effects of diversity on trust are not felt equally across all individuals. Minorities and majorities respond differently to diversity, certainly, but so too do those with or without ties to others in their community.

The Diversity Paradox

A growing body of research focuses on how diverse contexts – and particularly the composition of neighborhood environments – influence generalized trust and other attitudinal indicators of social cohesion. Most studies reveal that increasing levels of diversity pose a challenge to civic and redistributive values (e.g. Alesina and La Ferrara 1999; 2000; 2002; Costa and Kahn, 2003; Delhey and Newton, 2005; Hero, 2003; Putnam, 2007; Rice and Steele, 2001; Soroka *et al.*, 2006; Uslaner, 2002). In short, high levels of racial and ethnic heterogeneity are accompanied by lower levels of trust and other civic attitudes.

These findings should not come as a big surprise. Socio-psychological research, as well as work in political theory, suggests that trust should prosper in homogeneous settings, and suffer when faced with heterogeneity. Trust seems easier to develop when we are familiar with the people around us, and particularly when

they appear similar to ourselves (see, e.g., Miller, 1995). In essence, ethnic and racial differences discourage the reliance on the behavior of one's neighbors, friends and colleagues (Messick and Kramer, 2001, p. 100), thereby reducing levels of interpersonal trust, the capacity for cooperation and support for collective action. Increasing levels of immigration have, for example, been associated with decreasing support for social welfare (e.g. Carens, 1988; Kitschelt, 1995; Soroka *et al.*, 2006). Research on racial attitudes echoes the idea that diversity can cause feelings of threat, and even increased negative orientations toward those who are different. For instance, studies on racial attitudes in the US find that whites who live in closer proximity to African Americans and other minority groups exhibit increasing racial hostility and prejudice (Fossett and Kiecolt, 1989; Giles and Hertz, 1994; Glaser, 1994; Stein *et al.*, 2000; Taylor, 1998; Wright, 1977).[1]

Socio-psychological literature on inter-group relations, research on the contact hypothesis as well as claims made in social capital studies produce slightly different expectations about the effects of diversity. This research argues that direct bridging contacts with diverse others can be important for the building of an overarching identity or a trust, more generally, that transcends group boundaries (Bobo, 1988; Brewer, 1981; Dovidio and Gaertner, 1999; Gaertner *et al.*, 1996; McClelland and Linnander, 2006; Oliver and Wong, 2003; Olsen, 1972; Shingles, 1981; Tajfel and Turner, 1979; Wagner *et al.*, 2006). The background to this theoretical insight is the supposition that individuals who share racial, ethnic or other salient characteristics create an *in-group* bias through which cooperation, trust and affection are most easily developed for other members of this in-group. Emphasis on this shared identity fosters not only in-group affection, however, but also *out-group* hostility. The point here is that the *absence of direct contact* with or sustained knowledge about individuals of different racial, ethnic or class backgrounds serves to reinforce prejudices that are themselves based on inaccurate and rigidly held stereotypes (Bobo, 1988). That said, the literature emphasizes the potential benefits of diverse settings – it argues that social interactions among individuals from dissimilar groups foster a superordinate identity that helps both to diminish in-group bias and develop the inclusion of former out-group members (Allport, 1954; Gaertner *et al.*, 1996; Pettigrew and Tropp, 2000). This is particularly the case when certain conditions are met, e.g. when the social interactions are combined with common cooperative experiences and located on an equal footing. In other words, transferring those insights from research on prejudice to the study of trust, face-to-face social interactions among heterogeneous groups or individuals may under certain conditions be more conducive to the development of a kind of generalized trust that expands to include both members of the in-and out-group.

This insight has been emphasized in the social capital literature as well, which originally claimed that ties and interactions with racially or ethnically diverse others are more beneficial for civic values and attitudes than social contact with people who are more alike (Putnam, 2000; although see a revision in Putnam,

2007). The conceptual and empirical distinction between 'bridging' and 'bonding' associational memberships seems particularly helpful here (Coffe and Geys, 2006; Putnam, 2000; Warren, 2001). Bonding groups tie together individuals who are alike – a church brings together those of the same religion, for example. Bridging groups bring together people of diverse backgrounds, crossing ethnic, racial or religious boundaries. In the social capital account, the resulting social interaction, cooperation and familiarity lead to the development of knowledge-based trust among *dissimilar* individuals, which in turn fosters the development of a broader, more generalizable trust. In contrast, social interactions among homogeneous individuals may actually make it much harder – or even impossible – for individuals to transfer their in-group trust to the outside world (Brewer, 1981; again, however, see Putnam, 2007).

These insights might be transferable to informal social interactions outside associational life. Accordingly, social interactions in diverse neighborhoods may actually help build general interpersonal trust. Some recent work supports the hypothesis that direct social contact in diverse settings and trust may be positively related. For instance, Melissa Marschall and Dietlind Stolle (2004) find that in 1970s Detroit neighborhood diversity was positively related to trust, and social interactions in heterogeneous places were more beneficial than those in places where people were more racially similar.[2]

These two literatures – one focusing on the effects of contextual diversity, the other on inter-group relations – thus provide rather different accounts of how social trust might be affected by diversity. Whereas aggregate-level proximity of diverse others is fairly consistently negatively related to trust, out-group interactions seem for the most part to have positive consequences for various racial and civic attitudes. How can these seemingly contradictory perspectives be reconciled in the study of interpersonal trust?

One possibility is that measures of heterogeneity, typically drawn from the census, do not accurately reflect the immediate environment or actual compositions of networks of respondents. That is, diversity measured at the level of country, state, city or even census tract might not accurately reflect the *actual* experiences (or perceptions) of heterogeneity in people's daily lives. Work focusing on the effects of context may consequently suffer from mismeasurement of true experienced diversity.

Still, heterogeneity in the effect of diversity on trust is another possibility. Of course, most work already clarifies that the effects of diversity will be different for minorities than for majorities (e.g. Marschall and Stolle, 2004; Oliver and Wong, 2003; Soroka, Helliwell and Johnston, 2007). But – drawing on the inter-group relations literature – it may also be true that the effects of contextual diversity, which are negative on average, are mediated considerably through (diverse) social interactions. Let us retrace the logic of the literatures reviewed above in a way that suggests the two need not be diametrically opposed to each other. On the one

hand, contextual diversity can threaten majority group identity, upset out-group orientations and weaken interpersonal trust. On the other hand, social interactions in diverse contexts can help build a broader form of trust that more readily includes strangers. In short, and in line with the findings in both literatures, while diversity itself (without contact) may push interpersonal trust downwards, interaction and actual experiences with members of other social or racial groups can have counteracting positive effects. It is diversity without contact that is most problematic.

Clearly, we need to map better the relationship between ethnic diversity and social cohesion. This is the goal of the sections that follow – specifically, to examine the micro logic of the relationship between the proximity of diverse others and trust; more broadly, to examine whether the effects of diversity are mediated by individual social interactions and social experiences.

Trust and Diversity: A Canada–US Comparison

We begin with a model of interpersonal trust replicated in both the US and Canada – two societies which differ substantially when it comes to issues of diversity. In the US, 'diversity' is mostly determined by historical cleavages between whites, blacks and Hispanics. This does not mean that other visible minority groups do not exist, and certainly newly arriving immigrants do add to the full picture of diversity, but American political history – and current politics – quite clearly suggests that the black–Hispanic–white divide is *the* salient ethnic and racial division. The situation is quite different in Canada, where the number of both blacks and Hispanics is much smaller, and where the salient ethnic division (unlike in the US, 'race' is not referred to in political discourse) is between the visible majority (white) and the visible minority. This is the division typically invoked in official discourse about multiculturalism policy; indeed, 'visible minorities' are identified as a category in the Canadian Census. The resulting differences in salient dimensions of diversity, composition of neighborhoods and patterns of social interaction ought to influence the empirical effects of diversity. Nonetheless, we expect that diversity has a similar (negative) effect on trust in both countries – making clear the importance of our subsequent analysis, not just for the US but much more broadly as well. But we also expect that our US findings may in fact matter more elsewhere: higher levels of heterogeneity within minority groups, such as those existing in Canada, might actually pose greater challenges for social cohesion than for more uniform minority groups, as in the US.

Our analysis relies on two recent surveys. For the Canadian analysis we use the second wave of the Equality Security Community Survey (ESCS), conducted in Canada in 2002/3. This wave includes about 5,654 respondents randomly sampled from all Canadian provinces, supplemented with an oversample from the three largest and most diverse metropolitan areas. US data are drawn from the

Citizenship, Involvement, Democracy (CID) survey. The CID survey is a major study of American civic engagement, conducted by International Communications Research between mid-May and mid-July 2005. It consists of in-person interviews with a representative sample of 1,001 Americans who responded to an 80-minute questionnaire.[3] Because both individual and contextual factors are examined, both surveys are merged with aggregate data from the 2001 Canadian and 2000 US Census. The resulting data sets include, for instance (and most relevant for our current purposes), both the respondents' visible minority status and the proportion of visible minorities in their neighborhood. We can consequently gauge the direct and interactive effects of both.

Note that most studies of neighborhood context rely on contextual units measured at a relatively high geographic level, inaccurately reflecting the racial and socio-economic realities that individuals encounter on a day-to-day basis. Our data – in both countries – allow us to capture and measure characteristics of a contextual unit more likely to influence attitudes and behavior: in short, we can determine the individual's *immediate* context measured by census tracts. In our view, studies that have measured the diverse context at the state or city level (see, e.g., Hero, 2003; Varshney, 2001) do not fully capture the 'experience' of diversity and the potential for interaction in such settings. Census tracts represent small geographic units that are likely to be more meaningful in reflecting actual interaction settings.[4]

The dependent variable which we focus on here is interpersonal trust, a central component of the social capital and social cohesion literatures. Much of the literature on interpersonal trust relies on a single survey measure: 'Generally speaking, do you think that most people can be trusted, or that you can't be too careful in dealing with people?' This measure has been criticized for avoiding a context in which trust can be developed or not (Hardin, 2002). Moreover, Eric Uslaner (2002) has shown that the 'generalized trust' measure is of a moralistic nature – which means it is relatively unaffected by experience. A more appropriate approach in the study of diversity would be to use a measure of trust that is experiential and, if possible, more likely to be affected by context.[5] We accordingly rely on a battery of questions about a specific trust situation, new questions original to the ESCS, followed by the US CID survey. These questions are modeled after an experiment in which wallets each containing US$50 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). These 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 behavior. Additionally, the questions specify alternative types of 'finders' – common to both surveys, we have: (1) strangers; (2) neighbors; and (3) police:

> If you lost a wallet or purse with two hundred dollars, how likely is it to be returned with the money in it if it was found by ...

Again, there are differences in the response categories between the two surveys – the ESCS uses three categories, while the CID uses four.[6] In order to generate a more comparable measure, we combine the results from the three questions in each survey to produce a trust measure running from 0–3, where 0 is the least trusting and 3 (a score of three on each question) is the most.[7] The measure takes on slightly different values across the surveys, since we are aggregating three-item questions in one case and four-item questions in the other. Even so, the resulting measure is far more comparable than the individual items would be. In both surveys, the variable is normally distributed; that the average level of trust is slightly higher in Canada fits with past research relying on the generalized trust question (Inglehart, 1997).

The full regression model for this trust scale, estimated using OLS, is as follows:

$$TRUST = \alpha_1 + \beta_1 REth + \beta_2 CEth + [\beta_3 REth * CEth] + \sum_i \delta_i Ind_i + \sum_j \gamma_j Con_j + \varepsilon_1 \quad (1)$$

where Ind_i is a set of individual-level variables, Con_j is a set of contextual-level variables, α is a constant and ε_1 is an error term subsuming all unmeasured variation. We draw the individual and contextual variables from our own past work (e.g. Marschall and Stolle, 2004; Soroka, Johnston and Banting, 2007), along with the lessons from the large and growing body of empirical work on trust and social capital. Ind_i variables include most basic demographics: gender, age, education, language (in Canada), religion and immigration status. Details of these individual-level variables are available in the Appendix. Often the effects of diversity have been studied in isolation from other contextual attributes. We address this limitation by including (in Con_j) objective indicators of neighborhood socio-economic conditions: proportion with more than a high school diploma and median income per census tract.

Most of the individual and contextual variables are, given our current interests, included only as controls, and we offer no substantive interpretation of them here. We should note in passing, however, that as controls these variables have the effect of ruling out most alternative interpretations of the relationships we do emphasize. For example, we should make sure that the effects of diversity are not caused by other underlying factors that are known to influence trust, such as education and religion.

The most important variables for our current purposes are *REth*, a dummy variable representing whether or not the respondent belongs to a 'visible' minority (in Canada measured by self-identification with any ethnicity defined by the census as a visible minority; in the US, by self-defined racial identification) and *CEth*, the contextual equivalent: the proportion of visible minorities in each respondent's neighborhood, as of the 2000 US Census and the 2001 Canadian Census.[8] There are more sophisticated measures of ethnic diversity, including well-known ethnic fractionalization measures that account simultaneously for

varying proportions of many different ethnicities. Such indices require that we know the salient distinctions among ethnicities, however, and this is no mean task: for example, are Swedes and Norwegians in different categories in the North American context? We accordingly rely on 'visible minority' as our measure of respondents' ethnicity (*REth*) and ethnic diversity (*CEth*). The *REth***CEth* interaction then captures the possibility that ethnic context has a different effect on minority respondents than on majority ones.

Our main hypotheses, restated succinctly, are as follows: (1) proximity of diverse others will have negative effects on contextual trust; and (2) diverse personal ties with neighbors might compensate for the negative effects of proximity, particularly when these ties involve meaningful social interaction. Results addressing the first hypothesis are presented in Table 1.

We begin with the coefficient for visible minority status. It is negative in each case, suggesting that in both countries visible minority respondents show less trust than do visible majority respondents. Although it is difficult to compare directly the magnitude of coefficients across the two data sets (given quite different variances in the dependent and independent variables), it does appear as though the effect of visible minority status is particularly strong in the US.

The coefficient on ethnic context captures the contextual effect on majority respondents – it is strongly negative, consistent with earlier findings. In Canada there is a significant drop in the probability of giving the high-trust response; in the US this effect is a bit smaller. From an analysis of individual trust items we know that in both data sets the effect is greatest for the question about trust in neighbors returning the wallet, which makes sense, and it is reassuring that measures about neighborhood context most strongly influence perceptions of neighbors (see Stolle *et al.*, 2005). The interaction term between individual ethnicity and ethnic context is positive in all cases (though significant only for Canada).[9] This result reflects the fact that the negative impact of percentage visible minority is lessened or even reversed, predictably, for visible-minority respondents themselves.

The overall effect of context, for both majority and minority respondents, is illustrated in Figure 1. The figure shows estimated levels of trust, based on the models in Table 1, at different degrees of contextual diversity. The range for contextual diversity roughly captures the interquartile range in both countries (which is 3 per cent to 30 per cent in Canada and 3 per cent to 33 per cent in the US). First, there are differences between visible minorities and majorities, and this gap is largest in the US where trust is also generally lower than in Canada. Second, as already shown in Table 1, white majorities react to the context in which they live in both countries: particularly, they become usually less trusting when they experience more diversity in their environment; the decline seems greater in Canada. Finally, visible minorities are less affected by context in both countries, but particularly in the US where there is no apparent influence of diversity on minority respondents. This finding suggests that, for minorities at

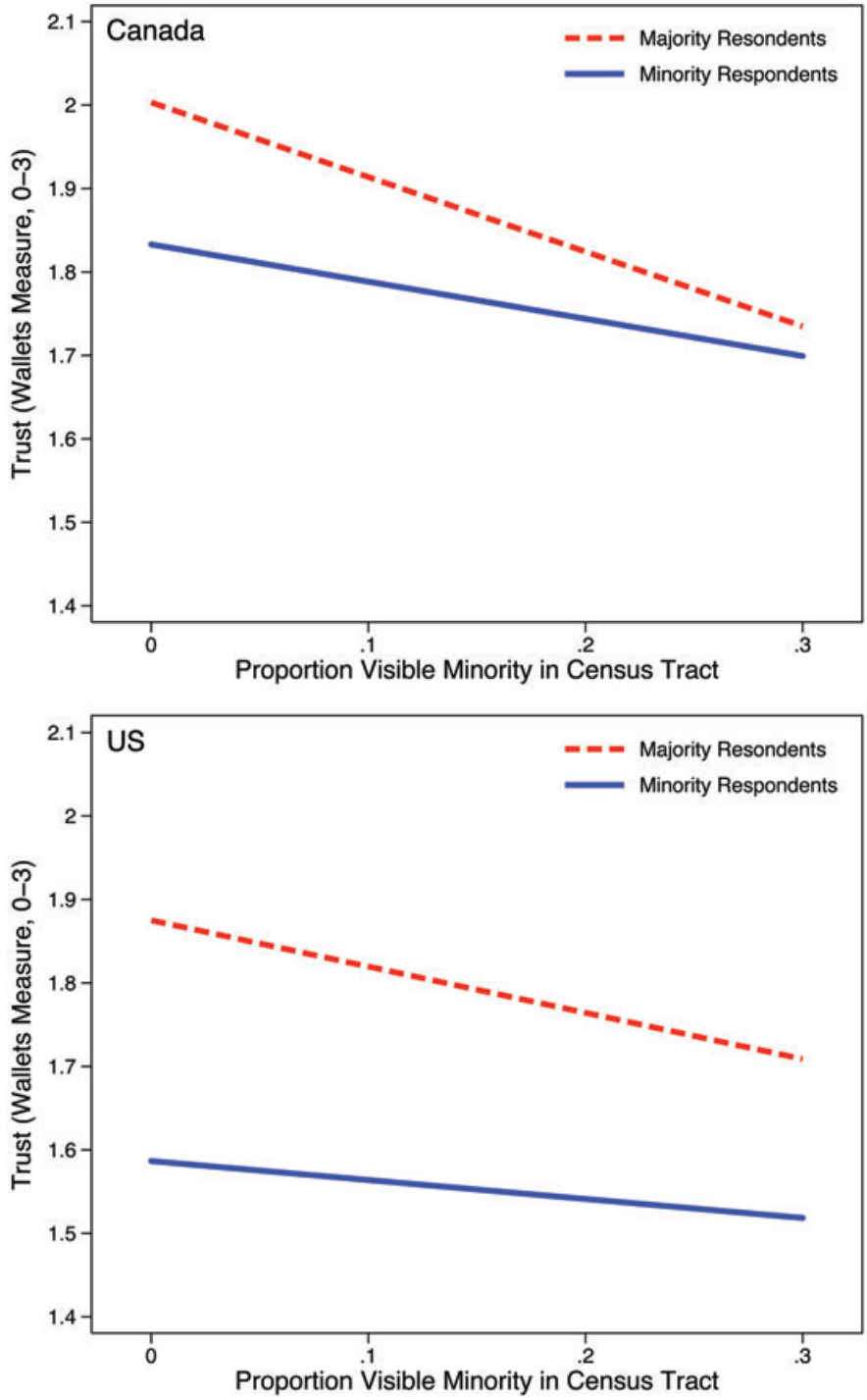
Table 1: Trust and Diversity: A Test with Contextual Measures of Diversity

	DV: Trust Scale	
	US (CID)	*Canada (ESCS)*
Diversity		
R is visible minority	–0.288***	–0.170*
	(0.078)	(0.095)
Prop. visible minority	–0.549***	–0.896***
	(0.185)	(0.082)
Interaction	0.327	0.445*
	(0.214)	(0.268)
Basic demographics		
Female	0.025	0.019
	(0.041)	(0.019)
Age (30–49)	–0.006	0.201***
	(0.050)	(0.028)
(50–65)	0.095	0.279***
	(0.062)	(0.032)
(66+)	0.165**	0.363***
	(0.078)	(0.036)
Educ. (Finished HS)	0.086	0.101***
	(0.071)	(0.034)
(Started col/uni)	0.274***	0.147***
	(0.070)	(0.035)
(Finished col/uni)	0.361***	0.207***
	(0.073)	(0.032)
Religion (Protestant)	0.169***	0.108***
	(0.044)	(0.025)
(Catholic)	0.076	0.011
	(0.057)	(0.025)
Immigrant	0.279***	0.005
	(0.068)	(0.029)
French	—	–0.512***
		(0.032)
Additional context		
Prop. > HS education	0.043	–0.002
	(0.277)	(0.001)
Median HH income	–0.000	0.200***
	(0.000)	(0.070)
Constant	1.517***	1.660***
	(0.215)	(0.057)
N	986	4,694
Rsq	0.143	0.161

Notes: Cells contain OLS coefficients and standard errors (in parentheses). Variable names in italics are contextual (Census data).

*$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.*

Figure 1: Contextual Diversity and Trust



least, their generally lower trust levels are not caused as much by the diverse context in which they reside, but by other factors which are not part of this study (but see Patterson, 1999). Generally, these results largely confirm past work finding negative effects of diversity on trust. Heterogeneity in this contextual effect is the subject of the section that follows.

Results for socio-demographic effects on contextual trust are roughly as we would expect, given past work in the field. The propensity to trust increases with both age and education; this is particularly the case in Canada where all age groups show significant differences compared to the youngest, whereas in the US only the oldest group over 65 distinguishes itself as the most civic generation (Putnam, 2000). In both countries, Protestants are the most trusting, compared to Catholics and 'others'. At the contextual neighborhood level, there appears to be no effect for education in either country. Median income does make a difference in Canada but not in the US. In the US, immigrants (controlled for minority status) are more trusting that the wallet would be returned, whereas there is no such effect in Canada. As has been identified in past work (Soroka, Helliwell and Johnston, 2007), Canadian francophones exhibit less trusting responses.[10]

Trust and Diversity: The Mediating Effect of Social Interactions

As the CID survey has a particularly detailed battery of questions on networks and social ties, we rely on just this US survey here. We also focus only on majority respondents. There are several reasons for this choice. First, majority respondents' trust is most affected by diversity in the surroundings. Second, allowing for separate effects for both majority and minority groups in the models below requires multiple interaction terms, which leads to problems of multicollinearity.[11]

We are particularly interested here in two aspects of social interactions and bridging ties. The first captures respondents' perceptions of the racial diversity of the neighbors with whom they interact:

> Of the people you interact with in your neighborhood, how many of them are of a different race from yours?

We treat this question as an alternative measure of neighborhood diversity, capturing more precisely the network diversity of individuals in relation to their neighbors. Responses could vary from 'none' to 'all', with nine categories. Because of the small number of cases in some categories, we truncate the scale to five groups: 'none', 'one or almost none', 'a few or some', 'about half' and 'many to all'. We expect that, as with the census-based measure, perceived diversity will be negatively associated with interpersonal trust.

The second question is as follows:

> Of the neighbors you know, how often do you talk to them: about every day, several times a week, several times a month, once a month, several times a year, once a year or less or never?

This question captures the degree to which one regularly interacts – or, more specifically, talks – with neighbors. These two questions provide an opportunity to test, then, the hypothesis that increased interactions diminish the (negative) effect of diversity. We include the direct effect of network diversity of neighbors below, as well as the interactive effect of this variable and talking with neighbors. The interaction allows for diversity to have different effects on those with and without social interactions with their neighbors.

The first column of Table 2 includes a replication of the Table 1 model, though in this case just for majorities (so the minority status and the interaction term are missing). This model serves as a starting point for the other models in the table. The results are fairly similar to Table 1. Most importantly, there is a significant and negative effect of census tract diversity – roughly a 0.005-point decrease in the (0 to 3) trust scale for each percentage-point increase in visible minority population.[12] In column 2, the observed diversity in individual neighborhood networks largely overpowers the census variable. That is, the census variable is cut virtually in half, while the coefficient for individualized diverse neighborhood networks is significant and negatively related to trust. It thus appears as though diversity measured by individualized neighborhood networks is a more powerful predictor of trust than the measure of proximity. Those reporting several or more neighbors of a different racial group are indeed less trusting.

How do actual contact and social interactions influence trust? Recall that we expect regular conversations with one's (diverse) neighbors to mediate the effects of contextual diversity. In the third column of Table 2 we include the item that measures the frequency of respondents talking to their neighbors, as well as an interaction term between the talk and the personal experience of diversity in one's neighborhood. The coefficient for the interaction is positive and significant. Respondents who have diverse neighbors and talk to them on a regular basis are significantly more trusting than those who have diverse neighbors and do not talk to them. In short, diversity is a challenge to trust only when it is not accompanied by enough social interactions.[13]

Figure 2 summarizes our findings. The figure shows estimated levels of trust, based on the model in column 3 of Table 2, at different degrees of observed racial diversity of one's neighbors. Estimates are shown for those who talk with their neighbors and those who do not. The difference between the two groups is obvious: the trust of those who talk to their neighbors is much less affected by their diversity, while those who do not talk experience the negative influence of diversity on trust which we observed in the previous section. Indeed, virtually all of the negative effect of diversity occurs among those who do not talk to their

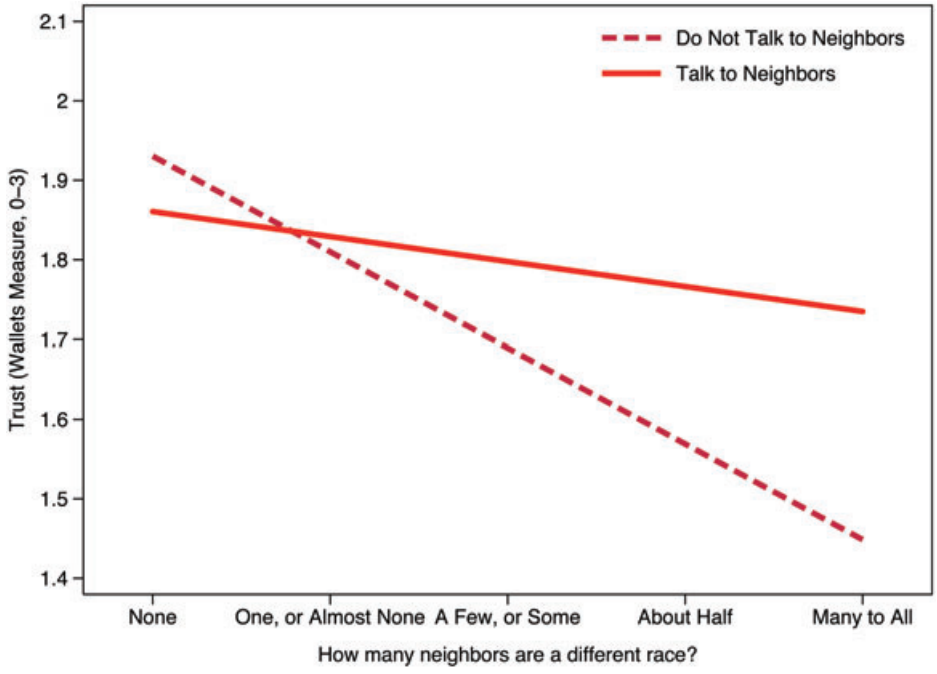
Table 2: Trust and Diversity: A Test with Individual Experiences of Neighborhood Diversity

	DV: Trust scale (majority respondents only)		
	US (CID)		
Diversity, ties			
Prop. visible minority	–0.485**	–0.252	–0.239
	(0.187)	(0.187)	(0.191)
Diversity of neighbors	–	–0.059**	–0.121***
		(0.024)	(0.034)
Talking with neighbors	–	–	–0.071
			(0.064)
Talk* diversity of neighbors	–	–	0.090**
			(0.044)
Basic demographics			
Female	0.051	0.052	0.053
	(0.045)	(0.046)	(0.046)
Age (30–49)	0.040	0.019	0.017
	(0.055)	(0.055)	(0.056)
(50–65)	0.182***	0.164**	0.160**
	(0.069)	(0.071)	(0.072)
(66+)	0.209**	0.158*	0.147*
	(0.086)	(0.088)	(0.088)
Educ. (Finished HS)	0.107	0.089	0.085
	(0.084)	(0.084)	(0.084)
(Started col/uni)	0.310***	0.310***	0.302***
	(0.089)	(0.088)	(0.088)
(Finished col/uni)	0.361***	0.344***	0.344***
	(0.090)	(0.090)	(0.090)
Religion (Protestant)	0.166***	0.146***	0.151***
	(0.051)	(0.052)	(0.051)
(Catholic)	0.052	0.063	0.065
	(0.068)	(0.067)	(0.067)
Immigrant	0.047	0.039	0.045
	(0.123)	(0.125)	(0.136)
Additional context			
Prop. > HS education	0.200	0.375	0.385
	(0.361)	(0.347)	(0.351)
Median HH income	–0.000	–0.000	–0.000
	(0.000)	(0.000)	(0.000)
Constant	1.320***	1.302***	1.345***
	(0.263)	(0.255)	(0.251)
N	715	680	680
Rsq	0.107	0.113	0.120

Notes: Cells contain OLS coefficients and standard errors (in parentheses). Variable names in italics are contextual (Census data).

*$p < 0.010$; **$p < 0.05$; ***$p < 0.01$.

Figure 2: Observed Diversity, Ties and Trust



neighbors. When experiencing the highest level of diversity in a context in which many or all neighbors are of a different racial background, the difference between those who talk and those who do not is 0.29 – roughly 10 per cent of the range on the 0–3 trust scale, or, taking into account the actual variance in that measure, almost one half of a standard-deviation (0.65) shift in the trust scale. Talking with neighbors has a cushioning function, preventing, or at least decreasing, the development of distrust in a diverse neighborhood context.

An obvious alternative interpretation of this finding involves reverse causation. How do we know it is the talking that matters here? The reverse could also be true – trusting respondents are perhaps the ones who are more talkative with their neighbors, whereas distrusting respondents remain quiet. As it happens, the correlation between the two variables talking and trusting is only 0.04, and it is not significant in the ethnic-majority sample. In other words, trusters are not necessarily talkers. Perhaps distrusters are less talkative in a diverse context than trusters? Although it is generally true that there is a little less talking in the diverse neighborhood context, the propensity to talk does not vary by levels of trust. That is, trusters and distrusters alike talk least when the racial or ethnic background of neighbors is mostly or entirely different from their own. Finally, in racially

homogeneous contexts there is essentially no difference in trust levels between talkers and non-talkers. Accordingly, we have a strong *prima facie* case for the causal mechanisms we describe.

Conclusions

Our analysis, one of the first controlled cross-national comparisons of small-unit contextual variation, confirms recent findings on the negative effect of neighborhood diversity on white majorities. Indeed, the contribution here is to show that this negative effect is not just apparent in the US, but also in Canada, using very similar – and we believe powerful – measures of neighborhood context. The effect seems slightly stronger in Canada than in the United States. We cannot draw any final conclusions about this comparison and the underlying causes of this difference, as it may be driven by the different sample sizes and slightly different measures. We speculate, though, that it partly reflects the different composition of diversity in the US and Canada. Canada has more heterogeneity within the group of visible minorities than the US does. This may cause white majorities to react differently to context. It may also matter more for minorities: in the US, higher minority percentages (at least as they are measured here) are more likely to mean percentages of minority persons who are like them. In Canada, visible minorities are so heterogeneous that an increase in the overall number does not necessarily imply an increase in the local preponderance of any single ethnic group.[14] There is also a difference as to how well integrated visible minorities are overall in the two countries. In the United States, visible minorities differ rather starkly in trust from their majority counterparts. Overall, their trust scores are extremely low compared to white majorities. These low trust levels may partly explain why US minority respondents do not clearly react to their diverse context – there is simply less trust to lose.

The negative effect of diversity persists even when we move from a census-based measure of diversity to a survey-based measure of network diversity. In fact, personal experiences with diverse neighbors seem more important for generalized trust than census-based measures which tap the proximity of, but not the actual contact with, diverse others. That said, our most important finding is that not everyone is equally sensitive to context. Individuals who regularly talk with their neighbors are less influenced by the racial and ethnic character of their surroundings than people who lack such social interaction. This finding challenges claims about the negative effects of diversity on trust – at least, it illustrates that the negative effects so prevalent in existing research can be mediated by social ties. Actual contact with diverse others makes racial and ethnic differences less threatening to majorities. This is not to say that such contact positively promotes trust; it may just neutralize the negative effect of diversity. In either case, it is clear that the strength and nature of social ties may be critical to the way in which individuals react to diverse surroundings.

Appendix

Table A1: Descriptives: 2nd Wave ESCS, Canada

Variable	*Obs.*	*Mean*	*Std. Dev.*	*Min.*	*Max.*
Female	4,286	0.541	0.498	0.000	1.000
Age (under 30)	4,286	0.178	0.383	0.000	1.000
(30–49)	4,286	0.447	0.497	0.000	1.000
(50–65)	4,286	0.230	0.421	0.000	1.000
(66+)	4,286	0.145	0.352	0.000	1.000
Educ. (did not finish HS)	4,286	0.159	0.365	0.000	1.000
(Finished HS)	4,286	0.219	0.414	0.000	1.000
(Started col/uni)	4,286	0.157	0.364	0.000	1.000
(Finished col/uni)	4,286	0.465	0.499	0.000	1.000
Education (% > HS)	4,286	34.616	10.018	1.700	73.209
Median income	4,286	45,536	16,223	16,868	173,558
French	4,286	0.170	0.375	0.000	1.000
Immigrant	4,286	0.222	0.415	0.000	1.000
R is visible minority	4,286	0.120	0.325	0.000	1.000
Visible minority (%)	4,286	13.834	15.957	0.000	49.371
Wallets – neighbor	4,284	0.676	0.345	0.000	1.000
Wallets – police	4,283	0.827	0.285	0.000	1.000
Wallets – stranger	4,286	0.378	0.317	0.000	1.000

Note: Cells include descriptives based only on respondents with no missing values in the preceding regression.

Table A2: Descriptives: CID Survey, USA

Variable	*n*	*Mean*	*Std. Dev.*	*Min.*	*Max.*
Female	984	0.5634	0.49621	0.00	1.00
Age (below 30)	984	0.2078	0.40593	0.00	1.00
(30–49)	984	0.3976	0.48965	0.00	1.00
(50–65)	984	0.2178	0.41294	0.00	1.00
(66+)	984	0.1359	0.34282	0.00	1.00
Educ. (less than HS)	984	0.1199	0.32498	0.00	1.00
(Finished HS)	984	0.3027	0.45965	0.00	1.00
(Started col/uni)	984	0.3437	0.47517	0.00	1.00
(Finished col/uni)	984	0.2328	0.42281	0.00	1.00
*Education (% ≥ HS)**	984	81.77	12.74	27.60	100.00
Median income	984	46,682	18,040	11,563	102,373
Immigrant	984	0.0700	0.25527	0.00	1.00
R is visible minority	984	0.2757	0.44710	0.00	1.00
Visible minority (%)	984	22.63	26.21	0.30	98.70
Wallets – neighbor	984	0.6134	0.32701	0.00	1.00
Wallets – police	984	0.7797	0.25424	0.00	1.00
Wallets – stranger	984	0.3116	0.28291	0.00	1.00

**Note that this contextual measure does not directly compare to the one for Canada, as it measures the percentage of inhabitants per census tract who have a high school degree or more. In Canada the equivalent measure used was the percentage of inhabitants who have more than a high school education per census tract.*

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Notes

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1 Oliver and Mendelberg (2000, p. 575) note that the impact of racial threat on whites' racial attitudes has typically been demonstrated with relatively simple bivariate analyses, where the effects of other salient contextual features are poorly controlled. Using multivariate tests and multiple contextual measures, they find that whites' racial dispositions are affected not by the racial composition of neighborhoods, but instead by neighborhood socio-economic status. The implication is that what is commonly captured as a diversity effect may in fact, in the US at least, be partly driven by socio-economic attributes. Even so, there is evidence from multiple countries that diversity – even when controlling for economic factors – is negatively associated with trust and civic engagement.

2 Others find a diminished or vanishing negative effect of diversity on trust once analyses take into account the fact that diverse interaction settings often have fewer socio-economic resources than more homogeneous settings (Letki, 2008).

3 The project also represents a loose collaboration between CDATS and the European Social Survey (ESS), which has been conducted biannually since 2002. The US CID survey integrates several elements of a 'module' from the ESS that results from the Citizenship, Involvement, Democracy (CID) project in Europe. The result of this project is that the US can now be included in comparative perspective to the 21 European countries from the 2002 version of the ESS.

4 In Canada, for respondents in metropolitan areas (loosely defined in Canada), we have contextual variables at the census tract (CT) level. Tracts include roughly 5,000 people, and so are quite reasonable proxies for neighborhoods. CTs do not exist outside metropolitan areas, however – there, we use data at the census subdivision (CSD) level, which are physically much larger although with roughly similar average populations. They also tend to be more homogeneous in many ways. In the US, CTs are used for metro areas as well as outside metro areas, where CTs often overlap with municipalities. They always nest within counties and they average about 4,000 inhabitants, so the geographic structure of our data sets is comparable.

5 In addition, the ESCS uses the traditional binary trust question, but the CID uses an 11-point scale, and the two are rather difficult to compare directly.

6 Whereas the Canadian ESCS survey uses three answer categories, such as 'very likely', 'somewhat likely' and 'not at all likely', the US CID survey uses four answer categories: 'very likely', 'somewhat likely', 'not very likely' and 'not at all likely'.

7 The Cronbach's alpha of these three items in the CID survey is 0.61 and in the Canadian ESCS 0.59.

8 Note that this number for the US includes only the percentage of Hispanics and blacks.

9 This model was also tested with separate variables for blacks and Hispanics in the US data. Results are less robust, due to smaller sample sizes, but the dynamics are the same: for both groups, percentage minority and minority status are associated with decreasing trust and the contextual effect is mediated by minority status.

10 Although we believe that a more experience-based measure of trust is preferable in this context, we did confirm that the same results hold with the standard generalized trust measure. In the US, results using the 11-point generalized trust measure are the same across all the variables of substantive interest here. (The same is true for Table 2 results, discussed later.) In Canada, using the binary generalized trust question, there is no significant direct effect of visible minority status, but the contextual effects are the same. Results are available upon request.

11 One choice could have been to analyze the majority and minority samples separately, but the minority sample in the CID survey (276 respondents) is too small for comfort.

12 Our census variables are included in proportions (0 to 1) in the estimations, so the coefficient shows the effect of moving from 0 per cent to 100 per cent minorities.

13 Note that the same patterns of results are obtained when measuring diversity by the perception of the number of immigrants living in one's neighborhood (results not shown).

14 In point of fact, however, specific groups do tend to congregate geographically.

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