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Co-Ethnic Concentration and Trust in Neighbourhoods

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1. INTRODUCTION

Changes in immigration to Canada, the United States, and other countries are re-shaping the ethno-racial landscapes of numerous metropolitan areas. Before the 1960s, Canada was an ethno-racially homogenous country because of ethno-centric place-of-origin restrictions in immigration policy. Since the 1980s, large waves of immigrants from Asia, Africa, the Caribbean, and other non-European regions have fueled the rapid ethno-racial diversification of the Canadian population. At present, Canada hosts over 200 ethnic groups and racial minorities comprise about 16 percent of the general population (Statistics Canada 2008). Through immigration, the racial minority population is also growing at a much faster pace than the general population. Within the next twenty years, one-third of the Canadian population will be non-White (Malenfant, Lebel, and Martel 2010). Moreover, the changes associated with ethnic diversity will be concentrated in immigrant gateway cities.

This pattern of immigration has two major demographic implications for the social texture of Canadian cities. First, the major cities (e.g., Toronto, Vancouver) are becoming the most ethnically heterogeneous places in the world. In these places, Whites are losing their majority share of the urban population (Hou 2006). Second, there has been a proliferation of ethnic communities (or enclaves) within these metropolitan areas because of chain migration and a preference for living among co-ethnics (Hou and Picot 2003). What is troubling is that a substantial number of studies associate ethnic diversity with a general erosion of social capital and an increase in racial prejudice within the White population (e.g., Hou and Wu 2009; Oliver and Mendelberg 2000; Putnam 2007; Schneider 2008; Taylor 1998). There are

questions about whether these negative outcomes best reflect ethnic diversity or other mechanisms, such as concentrated disadvantage or social distance between racial groups (see Letki 2008; Marschall and Stolle 2004; Stolle, Soroka, and Johnson 2008; Uslaner 2011), but it is difficult to discount the negative effect of diversity because it has been observed in numerous studies and across cultural environments.

The relationship between ethnic diversity and interpersonal trust is of considerable importance. Trust is a primary component of social capital, and it facilitates a broad range of social transactions and economic exchanges between people (Coleman 1998; Marschall and Stolle 2004; Uslaner 2000). Ross, Mirowsky, and Pribesh (2001) write that "trust is a belief in the integrity of other people. Trusting individuals expect that they can depend on others; they have faith and confidence in other people" (p. 569). In contrast, mistrust is an absence of faith or confidence in others, or a fear of being exploited or victimized, and is a reflection of social alienation. This latter observation – that mistrust is a consequence of alienation – is crucial for understanding the social distribution of trust. For our purposes, trust represents what Lewis and Weigert (1985) term a "collective attribute" and is therefore less so a property of an individual-level disposition, even though the latter is not an unimportant factor. Following Granovetter (1985), we conceptualize trust as a property of enduring social relationships or an individual's embeddedness in a social network.

Following this logic, the core problem for the development of trust in ethnically diverse communities is what Putnam (2009) describes as a "hunkering down" or alienation. Previous studies demonstrate that individuals prefer interacting with people from similar ethno-racial backgrounds and that trust in different-race pairings is lower than it is in same-race pairings (McPherson,

Lovin-Smith, and Cook 2001; Smith 2010). If trust is a function of social relationships, this suggests that the challenge of establishing strong networks in heterogeneous neighbourhoods is a principal factor in the negative relationship between ethnic diversity and trust. Put differently, trust does not appear to flourish in environments where the inhabitants are unfamiliar with one another or otherwise have superficial interactions (Stolle, Soroka, and Johnson 2008). The flipside to this argument is that homogenous environments are fertile for the development of trust because of the stronger interconnections within them. What appears to distinguish homogenous from heterogeneous neighbourhoods, then, is a difference in the density and interdependence of the social relationships that characterize them. There is, presumably, more risk involved with trusting people in heterogeneous environments because of the unfamiliarity and social distance between their inhabitants.

The purpose of this study is to examine the relationship between neighbourhood-level, ethno-racial context and trust in neighbors. To date, most studies have focused on how ethno-racial diversification influences trust and attitudes among Whites. Our main interest is the implications of ethnic diversity for racial minorities, although we include an examination of Whites for comparative purposes. For various reasons, immigrants and racial minorities tend to concentrate in certain cities and neighbourhoods (see Bauder and Sharpe 2002). Does their place of settlement have implications for their social relationships (trust) with neighbors? This study approaches this question in two respects. First, our main interest is whether the neighbourhood-level concentration of co-ethnics influences trust in neighbors, assuming that co-ethnic concentration intensifies social relationships in the neighbourhood. Second, the study also considers the effect of concentration of racial minorities. As Uslaner (2011) and Hou and Wu (2009) argue, it is this factor (residential seg-

regation) rather than diversity (a mix of different ethnic groups) that reduces trust.

2. RESEARCH BACKGROUND

2.1 Population Change and Social Capital

The effects of structural change on social capital are among the most enduring problems in social science (Forrest and Kearns 2001; Pahl 1991). Paxton (1999) remarks that concern with "community decline," or what Durkheim defined as anomie (normlessness), is a recurring theme in the literature, and is indeed at the geneses of sociological thinking. The leitmotif of classical sociological thought was the diagnoses of the consequences of the Industrial Revolution and modernization on social relations and integration. The structural conditions of mass, urban societies were perceived as a problem for social solidarity and, thus, as a source of alienation among individuals and conflict between groups (Durkheim 1997 [1893]; Simmel 1964 [1902]). Among the earliest accounts of the "community decline" argument is Tönnies' (2002 [1887]) theoretical statement on Gemeinschaft (traditional, agrarian communities) and Gesellschaft (modern, industrial societies). His overarching question focused on what would constitute the foundation for community-building and social cohesion in mass, urban populations, given the estrangement of people, plurality of values and sentiments, and social differentiation within them.

In contrast to what Tönnies termed Gemeinschaft – i.e., small, closed communities founded on direct, personal ties and a collective orientation – the world of Gesellschaft involves fewer commonalities, more depersonalized ties, less consensus about values and beliefs. This question of "community decline" resurfaced in the urban sociology of the Chicago School and its innovative field

research on neighbourhood transition (see Schwirian 1983). Reflecting the influence of Simmel, Tönnies, and Weber, the Chicago School was concerned with the general effects of urbanism, especially individualism and interpersonal competition, for community efficacy (see Park, Burgess, and McKenzie 1925). The Chicago School was also observant of the spatial distribution of social disorganization within the metropolis (Guest et al. 2006). This body of research demonstrated that the structural properties of neighbourhoods (e.g., residential instability, concentrated disadvantage, housing stocks) shaped individual-level behavioral patterns, as illustrated in differential patterns of crime and social dysfunction, and thus offered an ecological explanation of human behavior.

For Louis Wirth (1938), a key member of the Chicago School, the socio-demographic characteristics of the metropolis (i.e., population size, density, and heterogeneity) impede the formation of personal ties between urban inhabitants and accentuate the social distance between them. The large population of metropolitan neighbourhoods means that urban inhabitants cannot have personal relationships with a large proportion of their neighbors, unlike rural inhabitants. Most of the inhabitants of urban neighbourhoods are strangers. In addition, the density and heterogeneity of the metropolis increases their day-to-day exposure to people from different socioeconomic, occupational, religious, and ethnic backgrounds. Given a preference for homophily in social affiliation (see McPherson, Smith-Lovin and Cook 2001), this is another constraint on the development of well-integrated social networks among neighbors. Wirth acknowledges that it is possible for urban inhabitants to have a greater number of social contacts than their rural counterparts, but argues that these contacts have a fundamentally different social content. Urban social life involves mostly secondary contacts. The social relationships within

the metropolitan environment are, as Wirth (1938, p. 12) describes, predominantly "impersonal, superficial, transitory, and segmental," i.e., lacking the thick primary ties and dense social network that define kinship or social contact under Gemeinschaft.

For the development of trust, this is a crucial observation in two respects. First, the depersonalization of social interaction frees or insulates urban inhabitants from the expectations of their neighbors. The expectations of neighbors (norms of conduct and reciprocity) is the fount of solidarity in small, closed communities. This is because the primary contacts and shared expectations that define these communities bond their inhabitants together in a collective enterprise and regulate behavior. The relative absence of primary contacts among neighbors in the metropolis limits how much interpersonal expectations can function as a source of solidarity and regulation, considering that it is difficult to enforce such expectations outside of closed networks (Coleman 1988). Second, the impersonal nature of social transactions in cities leads to competition among their inhabitants as well as the potential for inter-group conflict as different groups compete for local resources or control over the neighbourhood. For these reasons, Wirth argues that the structural aspects of urban populations transform the characteristics of social relationships. At least, the impersonal and competitive nature of urban social interaction raises questions about social cohesion and inter-group conflict.

As Fukuyama (1999) argues, communities are not formed through simple social contact; community-formation also requires the presence of shared values and norms that unite people in a collective or for common reasons or purposes. The source of cohesion in the world of Gemeinschaft is a moral order that places groups needs above (or at least on par with) self-interest. The erosion of this basis of cohesion is not, however, a harbinger of social

chaos. In general, the "decline of community" represents a transitory process. To be sure, the Gemeinschaft-Gesellschaft transition led to a specific set of problems, but it did not lead to outright social collapse. Fukuyama observes that social disorder tends to increase alongside structural change, but it is reconstituted because humans are both social and rational and thus driven to establish norms or moral rules that establish communities. However, he also observes that a particular set of norms cannot serve as a permanent basis for community. The relentless change associated with modern societies implies that these norms are perishable, and some degree of social disruption is inevitable in liberal democracies. Hence, there is good reason that the "decline of community" is a recurring theme.

2.2 Ethnic Diversity and Trust

In the Chicago School perspective, a relatively homogenous and stable population is needed for the development and maintenance of social capital within neighbourhoods (Guest et al. 2006). In accordance, as neighbourhoods change via in- and out-migration (community succession), community networks dissipate, which decreases the capacity for social order. The interest in neighbourhood transition that defined the Chicago School is echoed in contemporary studies on the migration-driven ethno-racial diversification of numerous cities in Canada, the United States, and Western Europe. In Canada, the proportional size of the racial minority population has tripled since 1981 (Statistics Canada 2008). This demographic trend is re-shaping the social geographies of metropolitan areas, leading to a greater mix of ethnic groups and also greater residential segregation. In immigrant gateway cities, European-origin ethnics (Whites) are losing their majority share of the population (Hou 2006). Two decades ago, the White population dominated the neighbourhoods

where racial minorities resided. These neighbourhoods have changed so much since then that racial minorities now reside predominantly among co-ethnics or other non-Whites. Own-group preference is a major reason for this pattern of settlement and, thus, regardless of socioeconomic mobility, spatial assimilation is becoming harder to achieve. Hence, besides increasing ethnic diversity, immigration is fueling the proliferation of neighbourhoods with high concentrations of co-ethnics (ethnic enclaves) and racial minorities (Hou and Picot 2003).

In the US, there are concerns that this type of neighbourhood transition is triggering inter-group conflict and undermining local organization (Flippen 2001). This is illustrated in studies that demonstrate that White racial attitudes are related to the size of the local Black population (e.g., Oliver and Wong 2003; Schneider 2008; Taylor 1998). In the short term, interracial contact does not appear to improve race relations. The "power-threat" (or conflict) hypothesis suggests that Whites become more intolerant and hostile as the relative size of the local Black population increases (Fossett and Kiecolt 1989; Oliver and Mendelberg 2000). This hypothesis is generally agreed upon and has been replicated in numerous studies on White-Black relations. Though most studies focus on the reaction of Whites to the increasing presence of Blacks, there is also evidence that racial minorities have negative reactions to out-group members. A large number of Latinos and Asians report a preference for living in neighbourhoods without Blacks, and many Blacks have negative perceptions of other racial minorities (Farrell and Lee 2011).

This suggests that ethno-racially heterogeneous environments could be infertile places for interpersonal trust. Simmel (1964 [1902]) was among the first to recognize that the organization of social life characteristic of the metropolis (e.g., depersonalization, segmentation) is a constraint on the devel-

opment of trust. There has been a general decline of trust over the past several decades. The share of Americans who believe that "most people can be trusted" decreased from 58 percent to 36 percent between the 1960s and 1990s (Putnam 2000). This decline in interpersonal trust coincided with a general erosion of social engagement, which is unsurprising considering that trust is interwoven with community participation, neighborliness, and other forms of social capital (Uslaner 2000). The reasons for the decline are complex, but neighbourhood-level processes are rather important factors, especially community succession. Though Allport (1954) argues that inter-group contact can reduce prejudice, this cannot occur in absence of equal status, common goals, and other conditions that reduce the social distance between groups (Pettigrew 1998). The problem is that, while ethno-racial diversification has increased the potential for inter-group contact, it has not eliminated social inequalities, which violates a fundamental condition for positive inter-group contact.

Putnam (2007) argues that immigration and ethnic heterogeneity are constraints on social capital – which he defines as "social networks and the associated norms of reciprocity and trustworthiness" (p. 137) – at least in the early stages of neighbourhood transition. His argument challenges Allport's optimistic notion about inter-group contact, which does not appear to foster tolerance in the short-term. Of course, desegregation is a good thing, but it is a stretch to believe that this involves a smooth road to out-group trust and positive contact between racial groups. This road is indeed bumpy and full of detours. There is evidence from the studies that show that intolerance and prejudice increase in reaction to diversity. Putnam's basic argument is that there is a more or less linear relationship between trust and ethnic heterogeneity. People who live in heterogeneous environments trust others less than

do those who live among mainly co-ethnics or the same race. This finding applies to both interracial trust and trust in neighbors. Residents of hetero-geneous cities such as San Francisco and Los Angeles are comparatively less trusting of people from other races and of their neighbors.

Though controversial, Putnam's findings about the relationship between ethnic diversity and trust are difficult to dismiss considering that research from other countries corroborates the general thrust of his argument (e.g., Costa and Kahn 2003; Leigh 2006; Letki 2008; Soroka, Helliwell, and Johnson 2006). In fact, the negative effect of ethnic diversity on social capital has been observed in several developing countries (i.e., in non-White populations) and non-Western societies (see Habyarimana et al. 2009). Thus there is vast and cross-cultural evidence of a negative correlation between ethnic diversity and social capital. In Canada, Hou and Wu (2009) report similar findings. However, their argument differs from Putnam's in two important respects. First, the au-thors make a conceptual (and empirical) distinction between ethnic diversity and concentration of racial minorities. For them, diversity refers to the mix of racial groups in the neighbourhood, with more diverse neighbourhoods con-sisting of a more balanced distribution of all racial groups. The concentration of racial minorities refers to their predominance in the neighbourhood. Hou and Wu's results indicate that it is this latter measure, not ethnic diversity per se, that makes Whites less trusting of their neighbors. Second, their findings do not support Putnam's conclusion that all people are less trusting; ethnic diversity has a non-significant influence on trust among racial minorities. In other words, the effect of ethnic diversity reflects a negative reaction among the White population to the predominance of the racial minority population in the neighbourhood.

Putnam's argument does not, however, provide support for the conflict hypothesis either. His findings illustrate that in-group members do not band together in reaction to an increasing presence of out-group members. Although previous studies demonstrate that prejudice increases among Whites in response to an influx of out-group members, this does not parallel growth of in-group solidarity. Putnam shows that ethnic heterogeneity has a corrosive effect on in-group and "ethno-centric" trust. The effect of ethnic diversity is, therefore, generalized, as people living in diverse neighbourhoods are less trusting of everyone, not just out-group members. Hence, Putnam argues that diversity is associated with "anomie or social isolation" as people tend to "hunker down" in heterogeneous environments (p. 149). This involves a broad withdrawal from social interaction, including less socialization with close friends, volunteering, and community participation. The essential problem, then, is disassociation. For individuals who regularly interact with their neighbors, the ethno-racial context of their neighbourhood matters little (Stolle, Soroka, and Johnson 2008). What seems to be missing in ethnically diverse neighbourhoods is the social interactions that nourish trust.

To some extent, the concentration of disadvantage (e.g., poverty, unemployment) and racial segregation confound the relationship between ethnic diversity and trust. Both concentrated disadvantage and residential segregation increase with ethnic diversification (Letki 2008; Sampson, Raudenbush, and Earls 1997; Wirth 1938). First, rather than simply representing a negative reaction to out-group members, the relationship between ethnic diversity and trust also reflects the socioeconomic problems that are relatively common in ethnically diverse neighbourhoods (Letki 2008; Oliver and Mendelberg 2000; Sampson and Graif 2009). An impoverished socioeconomic environment contributes to neighbourhood instability and social disorder. This heightens per-

ceptions of disorder-related fear and alienation, which function as a social repellant that drives disassociation (Ross, Mirowsky, and Pribesh 2001; Smith 2010). Second, as Uslaner (2011) demonstrates, it appears to be residential segregation that underlies mistrust, and ethnic diversity per se does not have major consequences. The effect of ethnic diversity, he concludes, is "largely attributable to the fact that 'diversity' is a surrogate for a large non-white population" (p. 242). This is similar to Hou and Wu's (2009) finding that the concentration of racial minorities is what reduces trust in neighbors.

As Sampson and Graif (2009) insist, trust should be conceptualized at the ecological level. This is true for several reasons. The first is the recognition that trust is often context- or domain-specific and varies across different inter-personal or institutional settings or situations (see Hardin 2007; Lubell 2007). Second, trust is relational or embedded within particular situations, parties, or organizations. Finally, the structure (and therefore the distribution) of trust varies across societies, communities, and organizations. Hence, Sampson and Graif argue that trust is endogenous or inseparable from ecological-level processes, which explains its variation across neighbourhoods. The literature suggests that the process of alienation and community disinvestment – what Putnam refers to as "hunkering down" – is the common condition of mis-trust in heterogeneous and/or disadvantaged neighbourhoods. The structural characteristics of these neighbourhoods can produce what Sampson and Graif term "mistrust traps" or conditions that are caustic for trusting relationships. The low levels of trust in these places propel a cycle of mistrust through dis-abling efficacious community-level responses to social disorder and decreasing positive interactions among residents. Mistrust breeds social isolation because mistrusting people believe it is best to distance themselves from others to avoid being exploited or victimized (Ross, Mirowsky, and Pribesh 2001).

2.3 Trust and Co-Ethnic Concentration

Though the focus is on the "problem" of ethnic diversity, implicit in the literature on the relationship between diversity and trust is the assumption that co-ethnic concentration (excluding that in ghettos) represents a fertile environment for the development of trust. Besides asking what it is about ethnic diversity that leads to mistrust, it is also important to consider what it is about homogenous environments that fosters trust. The latter question is pertinent because ethnic diversity increases the likelihood that a person will live near in-group members (Bourne 1997). In general, a person's social network is homogenous in numerous social and demographic characteristics, and ethnicity/ race is first among the attributes that connect or separate people (McPherson, Smith-Lovin, and Cook 2001). These characteristics are also a determinant of our trust in others. Trust is easier to bestow onto people who are familiar or otherwise appear similar to us (Stolle, Soroka, and Johnson 2008). There is much research to suggest that individuals prefer interacting with people from similar backgrounds or whose reputation is well-known (e.g., Alesina and La Ferrara; Granovetter 1985). In contrast, a dissimilar background or lack of a common social network decreases trustworthiness between pairs. Prior studies indicate, for example, that trust and reciprocity is lower in interracial transactions than among same-race pairs (Glaeser et al. 2000; Simpson, McGrimmon, and Irwin 2007).

As Lewis and Weigert (1985) point out, trust "always involves an unavoidable element of risk and potential doubt" (p. 968; see also Hardin (2002), pp. 7-13). Put differently, trust would be irrelevant if it was possible to predict the intentions of others. To illustrate, when I lend a person $100 I trust him to repay the loan. If I *knew* he would repay the loan I would not need to trust

him, since I would be certain of the outcome. Trust applies to situations where the outcome (i.e., a person's behavior, such as debt repayment) is uncertain. Moreover, the uncertainty (or amount of risk) that trust involves is dependent on the social context. For example, lending a stranger $100 is much riskier than lending it to a close friend. With a close friend, I have a reasonable sense of whether he is trustworthy and I also know other personal details about him (e.g., where he lives) that can help me enforce the loan. When I lend a stranger $100, I take a leap of faith and have little recourse in case of default. Trust is a form of risk management, and the less certain we are about others, the higher the perception of risk (Giddens 1990). This risk becomes more tolerable as the people involved become more familiar.

Trust is indispensable for lubricating social transactions since it is impossible to be certain about the behaviors of others (Lewis and Weigert 1985). As noted above, social cohesion in urban communities cannot be based on direct, personal ties because their sheer size means that most people are strangers or have superficial face-to-face contact. The implication is that, among urban inhabitants, trust in neighbors cannot be knowledge-based or derived from previous experiences. This is because knowledge-based trust develops through a history of successful reciprocal exchanges between two parties (Hardin 2002). I may lend a close friend $100 because I have done so in the past and have always been repaid or because I borrowed money from him and feel obliged to return the favor. This type of relationship cannot exist between all urban neighbors. This increases the risk involved in trusting them, since urban inhabitants have limited knowledge about each other. This implies that trust is an even riskier venture in diverse communities because it is there that unfamiliarity with others intensifies our uncertainty about our neighbors' motivations and intentions.

Since trust always involves uncertainty, there must be a good reason to trust in spite of uncertainty; with an absolute lack of knowledge or familiarity, there is no reason to trust (Lewis and Weigert 1985). Following this logic, lending $100 to a stranger is a gamble and does not involve trust. Hardin's (2002) concept of "encapsulated interest" clarifies what constitutes a good reason to trust. Encapsulated interest refers to the interlocking of self-interest between two parties or within a group. When I trust a close friend to repay a loan, it is because it is in his self-interest to do so. This is premised on the belief that he values our relationship enough that he will not default, lest he damage the relationship. Hardin calls this "encapsulated interest" because both parties have a stake in the fulfillment of the obligation. Both parties, on the other hand, have something to lose if trust is breached. If my friend defaults on the loan, I lose $100, and he loses his reputation as trustworthy. This loss of trustworthiness jeopardizes all of our future transactions and can indeed sever our relationship. Thus his interest in our social relationship compels him to repay the $100 when the long-term costs of shirking this obligation outweigh the short-term gains of default.

At the group level, what aligns self-interest is obviously much more complex, but the same basic principle applies. What is essential to bear in mind is that, in foregoing examples, trust is defined as a mutual interest within a social relationship. The stronger and more interdependent the relationship is, Hardin argues, the greater reason there is to trust, since malfeasance incurs higher costs in close relationships than distal ones. For example, I trust a stranger much less than a close friend with a $100 loan because our undeveloped relationship means that he has comparatively little to lose if he defaults. In large communities, however, trust cannot be established on an individual-to-individual basis. What, then, is the reason to trust our neighbors? Our re-

lationship with the community itself (not individuals) provides the answer. As discussed below, the encapsulated interest that prevails within a community decreases the uncertainty about what to expect from others; thus, tight-knit neighbourhoods are a low-risk environment for trusting neighbors. In contrast, the reason for the mistrust trap is a lack of social capital (community efficacy) through which mutual interests are established and enforced (see Sampson, Raudenbush, and Earls 1997).

This brings us to the question of co-ethnic concentration. The argument that is left to be completed is our notion that ethnic communities or ethnic enclaves are comparatively low-risk environments for trusting neighbors because of their purpose and structural characteristics. Co-ethnics concentrate in certain areas for several reasons. First, co-ethnic immigrants often cluster together because socioeconomic constraints limit them to neighbourhoods with cheap housing and close proximity to kin-group members that can provide and share instrumental and financial support (Bauder and Sharpe 2002; Hou 2006). In addition, co-ethnic social networks are a vital source of social capital, providing employment opportunities or information that smoothes the process of re-settlement (Chiswick and Miller 2005). Co-ethnic ties are a central factor in the well-being of immigrants and are as important as financial and human capital in their economic integration (Nee and Sanders 2001). For racial minorities, residential dispersal is not inevitable, and their residential concentration can be viewed as a long-term group-level coping response to socioeconomic difficulties (Bauder and Sharpe 2002).

Second, co-ethnic concentration can reflect personal preferences. In Canada, the spatial concentration of racial minorities is not primarily a result of ghettoization, but associates with a desire for living among co-ethnics (Hou 2006). These neighbourhoods are what Logan, Zhang, and Alba (2002) define

as "ethnic communities" (as distinguished from enclaves), because these are the favored destinations of immigrants and are maintained due to a preference to live near co-ethnics and in a familiar cultural environment. Logan et al. recognize that preference and practical necessities can pull immigrants in the same direction, but for many immigrants socioeconomic status is not a constraint on neighbourhood choice. In this regard, the main benefit of co-ethnic concentration is the economy of scale that facilitates the production of market (e.g., specialty stores) and non-market (e.g., religious institutions) services and cultural organizations (Chiswick and Miller 2005). Thus co-ethnic concentration can also be viewed as a strategy for the reproduction of cultural goods and traditions and the social connections that preserve ethnic identities. These neighbourhoods, therefore, represent a common social space for people with similar values and sentiments to interact.

Third, besides the ordinary challenges of immigration, such as finding employment, the need for co-ethnic concentration can also reflect an unwelcoming host population and limited social and economic opportunities within it. Portes and Sensenbrenner (1993) argue that ethnic enclaves have often formed as a defensive maneuver against discrimination and racism. In general, the experience of being an immigrant tends to create social ties among co-ethnics. These ties are galvanized when the immigrant experience involves exclusion and hostility from the host population. The ethnic groups that have faced the most exclusion and hostility (e.g., Jews, Chinese, and Italians) formed tight-knit and enduring enclaves, while immigrants who were accepted into the host population eventually dispersed, which explains variation in co-ethnic concentration among immigrants and their descendants. Portes and Sensenbrenner observe that this also accounts for differences in social solidarity between different ethnic groups. This is termed "situational solidarity" because it is

specific to the experiences of dealing with an unwelcoming host population. In fact, the co-ethnic ties and identities among immigrants are often stronger than what prevails in the sending country, and are thus irreducible to a cultural phenomenon.

These three factors account for the proliferation of ethnic communities and enclaves. To some extent, these neighbourhoods correspond to the need and/or preference for social closure. The closure of social networks, according to Coleman (1988), is precisely what "creates trustworthiness in a social structure" (p. S108). The core problem of mistrust in heterogeneous environments (or open structures) is "hunkering down" or a lack of network density. Cooperation among large numbers of individuals depends on the "trustworthiness of the environment" or the external mechanisms that increase fidelity between actors (p. S102). This depends on behavioral norms that are difficult to establish and govern outside of a dense social network (Granovetter 2005). Coleman argues that group closure creates trustworthiness inasmuch as it promotes and regulates cooperation and fair exchange. These norms are premised on the expectation of reciprocity and that an individual's neglect of these norms of reciprocity will be monitored and penalized at the community level (Coleman 1998; Habyarimana et al. 2009).

As Granovetter (1985) argues, trust is a function of ongoing social relationships, and depends less on a person's faith in generalized morality or institutional mechanisms that compel individuals to fulfill their obligations. The latter he refers to as a "functional substitute" for trust, since institutional mechanisms (e.g., legal contracts) displace the need for it. There is no doubt that, for Granovetter, without generalized morality there would be a constant fear of being cheated. But the widespread preference for transacting with individuals of known reputation demonstrates that generalized morality is a weak

foundation for trust. Though necessary, social relationships are not a sufficient (or automatic) condition for trust to develop, according to Granovetter's logic. What also matters is the structure of social relationships. A direct and on-going relationship between two parties is optimal for the development of trust since it provides firsthand information about trustworthiness. The reason that people trust one another in absence of a direct or strong relationship comes from membership in a social network and the network's capacity to transmit information about trustworthiness and sanction violations of trust. This re-quires network closure because the diffusion of information and regulation of behavior depends on the social network (Coleman 1998).

The immigration-related experiences that motivate ethnic groups to con-centrate in neighbourhoods meet the criteria of encapsulated interest and social closure. Our argument is that when a group forms because of mutual needs, preferences, or experiences, a corollary is a fertile environment for trust to develop. This is because the practical need and personal desire to maintain a dense social network influence the structure of trust. In a purely dyadic relationship, if A violates B's trust the negative consequences are lim-ited to the A-B relationship. When embedded in a common social network, however, the consequences are far-reaching and pervasive. That is, if A vio-lates B's trust, he risks his reputation with the entire network, which can sanc-tion his transgression through shunning or exclusion from transactions with all (or most) network members. This is a form of social capital since it embodies "enforceable trust" or a community-level resource (backstop) against shirking or malfeasance (Portes and Sensenbrenner 1993). Hardin's (2002) concept of "encapsulated interest" is, therefore, applicable at the community level.

3. Data and Methods

3.1 Data Sources

The data for the empirical analysis come from three sources: the 2006 Canadian Census (20-percent microdata file) and Cycles 22 and 23 of the General Social Survey (GSS). The census data was employed to construct the selected neighbourhood-level variables. This defines neighbourhoods as census tracts, which is consistent with research conventions (see Alba, Logan, and Stults 2000; Hou 2006; Wu, Schimmele, and Hou 2011). Although census tracts are imperfect representations of actual "lived" or subjective neighbourhoods, these are accurate representations of the demographic and socioeconomic characteristics of residential environments. In Canada, census tracts consist of approximately 4,000 persons, on average, and using the 20 percent microdata file reduces this number to about 800 respondents per neighbourhood. Using common geocodes, the census-derived variables were merged with the individual-level data from the GSS-22 and GSS-23 to generate a multilevel dataset. These geographic identifiers allowed us to determine the residential neighbourhoods (and thus the ecological context) of the respondents in the GSS-22 and GSS-23.

The GSS-22 and GSS-23 were pooled and provide our individual-level data. The GSS-22 was conducted in 2008 and the GSS-23 in 2009 by Statistics Canada. The GSS-22 and GSS-23 are nationally representative surveys of the Canadian population aged 15 and older, excluding full-time residents of institutions and residents of the Yukon, Northwest Territories, and Nunavut. See Allan and Marchand (2010) and Burns and Williams (2011) for further details about survey and sample design and data collection procedures. The sample size of the GSS-22 is 20,401, with a response rate of 57.3 percent. The sample

size of the GSS-23 is 19,422, with a response rate of 61.6 percent. We pooled these surveys for a total of 20,905 White respondents and 3,141 racial minorities, after excluding cases with missing data. Except for income, there are few cases with missing values. The respondents in our target population reside in over 4,000 urban neighbourhoods nested in Census Metropolitan Areas (CMA) and large census agglomerations (CA) in the 10 provinces. A CMA has a total population of at least 100,000 persons and an urban core of at least 50,000 persons (Statistics Canada 2012). A large CA has a core population of between 50,000-99,999 persons. About 95 percent of racial minorities live in these urban areas; their proportion ranges from a low of under 1 percent in some CMAs in Québec to a high of 37 percent in the Toronto and Vancouver metropolitan areas (Wu, Schimmele, and Hou 2011). At the CMA-level there is also an uneven distribution of racial minorities across neighbourhoods.

3.2 Dependent Variable

Our dependent variable of interest is a person's trust in their neighbors. The respondents were asked: "Using a scale of 1 to 5 where 1 means 'Cannot be trusted at all' and 5 means 'Can be trusted a lot' how much do you trust … people in your neighbourhood." We measured this variable as a continuous variable, but experimented modeling it as an ordinal variable using ordered logistic regression models. The results from this sensitivity analysis are reported in Appendix 3. These findings demonstrate that it is not inappropriate to treat the dependent variable as a continuous variable. The direction of the signs on the coefficients and significance levels are similar in both the OLS and ordered logistic regression models. For ease of interpretation, we choose to present the OLS results.

3.3 Individual-Level Variables

The analysis controls for a selection of individual-level variables that have a well-known influence on interpersonal trust (see Hou and Wu 2009; Putnam 2007). Table 1 presents the coding and descriptive statistics of all of the individual- and neighbourhood-level variables in the analysis. The individual-level controls include several demographic variables: age, sex, marital status, and immigrant status. Age is measured in years, with a range of 15 to 98 years; a mean of 45 years for White respondents; and 38 years for racial minorities. Sex is measured using a dummy variable (female = 1); about 50 percent of all respondents are female. Marital status is measured using a 4-level categorical variable: widowed, separated or divorced, never married, and married or cohabiting (reference group). The majority of Whites (63 percent) and racial minorities (57 percent) are married or cohabiting and the next highest response is never married. A small proportion is separated/divorced or widowed. Immigrant status (foreign-born) is measured using a dummy variable (immigrant = 1). About 14 percent of Whites and 79 percent of racial minorities are immigrants.

The analysis also controls for several indicators of socioeconomic status: education, household income, and homeownership. Education is measured using a 4-level categorical variable: less than high school, high school diploma, some post-secondary, and a Bachelor's degree or higher (reference group). In general, racial minorities have higher educational attainment than Whites. About 42 percent of racial minorities have a Bachelor's degree or higher in comparison to 28 percent of Whites. At the lower end, 13 percent of racial minorities and 16 percent of Whites have less than high school. About 42 percent of Whites and 35 percent of racial minorities have some post-secondary

TABLE 1. CODING AND DESCRIPTIVE STATISTICS OF VARIABLES USED IN THE ANALYSIS

	WHITES		VISIBLE MINORITIES	
	M OR %	S.D	M OR %	S.D
Response variable				
Trust neighbors (1 = cannot be trusted at all, …, 5 = can be trusted a lot)	3.61	0.87	3.24	1.10
Individual-level variables				
Age (range: 15 - 98)	45.21	15.07	37.84	15.49
Sex (female = 1)	50.8%		50.2%	
Marital status				
Widowed	5.0%	–	1.7%	–
Separated or divorced	6.9%	–	4.9%	–
Never married	25.6%	–	36.3%	–
Married or cohabiting	62.5%	–	57.1%	–
Education				
Some post-secondary	42.4%	–	35.3%	–
High school	13.4%	–	9.0%	–
Less than high school	16.0%	–	13.3%	–
Bachelor's degree or higher	28.2%	–	42.3%	–
Family income		–		–
Lowest income (<$20,000)	4.4%	–	6.8%	–
Low middle income ($20,000-49,999)	10.8%	–	12.3%	–
Middle income ($50,000-79,999)	13.7%	–	15.5%	–
Upper middle income ($80,000-99,999)	23.6%	–	20.0%	–
Income not reported	18.3%	–	25.3%	–
Highest income (>=$100,000)	29.3%	–	20.1%	–
Immigrant status (immigrant = 1)	13.7%	–	78.8%	–
Home language (1 = not English or French)	3.4%	–	42.3%	–
Years lived in the current neigbhourhood				
Less than 1 year	6.9%	–	10.0%	–
1 - 3 years	12.1%	–	20.8%	–
3 - 5 years	10.4%	–	15.9%	–
Over 5 years	70.6%	–	53.3%	–
Homeownership (1 = yes)	79.0%	–	73.4%	–

TABLE 1. CODING AND DESCRIPTIVE STATISTICS OF VARIABLES USED IN THE ANALYSIS (CONTINUED)

	WHITES		VISIBLE MINORITIES	
	M OR %	S.D	M OR %	S.D
Location				
Toronto	18.0%	–	43.1%	–
Montreal	16.9%	–	11.5%	–
Vancouver	8.2%	–	18.1%	–
Other large CMAs with population over 500k	24.7%	–	18.1%	–
Small CMAs	25.5%	–	8.0%	–
Large census agglomerations that can be tracted	6.7%	–	1.2%	–
Neighbourhood-level variables				
% of own ethnic group	0.82	0.15	0.14	0.17
% of other racial minorities	0.15	0.14	0.28	0.19
Income inequality	190.49	97.54	197.58	121.48
Low-income rate	0.14	0.08	0.19	0.11
% with university degrees	0.21	0.10	0.24	0.11
% of non-movers	0.58	0.11	0.53	0.15
% of seniors	0.13	0.05	0.11	0.06
Logged population density	7.18	1.30	7.91	1.06
N	20,905		3,141	

Sources: the 2006 census 20% sample microdata file, and the 2008 and 2009 General Social Survey.

education. Household income is measured with a 6-level categorical variable, ranging from lowest income (less than $20,000) to highest income (greater than $100,000). This variable includes a category for "income not reported" because of the high number of missing data (refusals) for it. Over 18 percent of Whites and 25 percent of racial minorities failed to report their household income. Homeownership is measured with a dummy variable (1 = yes); 79 percent of Whites and 73 percent of racial minorities are homeowners.

In addition, the regression models control for several other individual-level variables. Home language or whether the respondent's primary language used

in the home was either English or French (1 = no), which are Canada's official languages. Over 42 percent of racial minorities report using a home language other than English or French compared to less than4 percent of Whites. The study also controls for time lived in the present neighbourhood: less than 1 year, 1-3 years, 3-5 years, and 5 years and longer. About 70 percent of Whites and 53 percent of racial minorities have lived in the same neighbourhood for 5 years or longer. A comparatively larger proportion of racial minorities have also lived in the same place for less than 3 years. Finally, the study controls for regional location. This variable includes Toronto, Montréal, Vancouver, other large metropolitan areas, small metropolitan areas, and large census agglomerations. Over 90 percent of racial minorities live in Toronto, Montreal, Vancouver, or other large metropolitan areas. This compares to 68 percent of Whites.

3.4 Neighbourhood-Level Variables

The regression models include several measures of the demographic and socioeconomic characteristics of neighbourhoods. Our primary interest is in the ethno-racial composition of neighbourhoods. This is measured using two different variables. The first variable is co-ethnic concentration in the neighbourhood. This represents the percentage of the neighbourhood that consists of a respondent's ethnic in-group. This measure includes 20 ethno-racial groups, including various European groups (e.g., English, French, German, and Italian), West Asian groups (e.g., Afghan, Iranian), Arabs, East Asian groups (e.g., Chinese, Japanese) South Asian groups (e.g., Indian, Pakistani), Southeast Asian groups (e.g., Cambodian, Vietnamese), Blacks, Latin Americans, and Aboriginals. The second variable is a measure of the percent of racial minorities in the neighbourhood. For Whites, this includes the combined per-

centage of racial minorities in the neighbourhood, such as Blacks, Asians, and Aboriginals. For racial minorities, this includes the percentage of racial minorities, excluding their own racial group.

The analysis controls for several indicators of neighbourhood socioeconomic context, considering the previous studies demonstrate that the relationship between ethnic diversity and trust could reflect concentrated disadvantage (see Letki 2008; Oliver and Mendelberg 2000; Sampson and Graif 2009). Socioeconomic context is measured using several variables: neighbourhood income inequality (using coefficient of variation), the low-income rate of the neighbourhood (using Statistics Canada cut-offs), and percentage of university graduates in the neighbourhood. Other ecological-level variables include: the percent of non-movers (residential stability), or the percent of people who have lived in the neighbourhood for 5 years or longer; the percent of seniors (people age 65 and older) in the neighbourhood; and logged population density. See Appendix 1 for the zero-order correlations of all neighbourhood-level variables. The relatively high collinearity between co-ethnic concentration and percentage of racial minorities ($r = -.609$) suggests that these variables should be entered separately in regression models. Otherwise, the VIF values (not shown) are mostly small (between 2 and3) with none above 10, which suggests that collinearity is not a major issue for the other neighbourhood-level variables.

3.5 Statistical Methods

The analysis uses OLS regressions, a common statistical tool that needs not to be detailed here. But there are two methodological issues that require brief discussion. First, there is the issue of clustering. In multilevel models, cluster effects (i.e., correlated errors within neighbourhoods and unequal variances

across neighbourhoods) could bias our regression estimates. To address this issue, we computed robust standard errors for the regression models, which account for the clustering effects that can arise when working with multilevel data (Steenbergen and Jones 2002). This approach is akin to a fixed-intercept model with level-1 covariates in hierarchical linear models (Raudenbush et al. 2000).

Second, there is the issue of self-selection (endogeneity) in neighbourhood choice. In certain cases, a person's neighbourhood choice could reflect their attitudes toward others, such as a prejudiced person self-selecting himself out of neighbourhoods with large numbers of racial minorities or out-group members. As Putnam (2007) remarks, this is a counterintuitive interpretation of the relationship between diversity and trust, because this would require that the most distrusting people self-select into the most diverse neighbourhoods; that said, we experimented with an instrumental variable (IV) approach. Following Dustman and Preston (2001), we used co-ethnic concentration and the percent of minorities at the municipality level (with an average population of 110,000) as the instrument for the same variable at the neighbourhood level. This is equivalent to estimating a two-stage model: at stage 1, we used the higher geographic level attributes together with other variables to predict lower-level attributes; and, at stage 2, we used the predicted values from stage 1 model to replace the original variables in the model predicting the outcome variable (see Dustmann and Preston, 2001; Wooldridge, 2003).

The theoretical underpinning of this procedure is the assumption that most residential moves take place between neighbourhoods and that mobility of individuals across neighbourhoods within a municipality does not alter the overall diversity of the municipality.

The results from the IV models are reported in Appendix 2. In brief, the IV approach suggests that higher-level (e.g., municipality) attributes (e.g., ethnic diversity) can be used to instrument low-level (e.g., neighbourhood) attributes. However, the results from the Davidson-MacKinnon test confirm that the IV approach is unnecessary for our purposes.

4. RESULTS

Our empirical analysis examines the relationship between neighbourhood's ethnic composition and trust in neighbors. We focus on two indicators of ethnic composition. First, we examine the relationship between co-ethnic (or in-group) concentration and trust. This follows the assumption that higher levels or increases of co-ethnics in a neighbourhood correspond to the density of a person's potential social network within it. This assumption is based on the evidence of homophily in social affiliation and a preference for interacting with in-group members (see McPherson, Smith-Lovin, and Cook 2001). Since trust, as discussed above, is a function of social relationships, this implies that it should increase with higher concentrations of co-ethnics, assuming that it fosters greater social interaction and ties among neighbors.

Second, the analysis considers the concentration of racial minorities. For Whites, this includes the proportion of all racial minorities (e.g., Blacks, Asians) in the neighbourhood; for racial minorities themselves, this includes all racial minorities, excluding members of the respondent's own group. To illustrate, for a Chinese respondent, this would include the proportional number of all racial minorities, excluding Chinese Canadians residing in the neighbourhood. The analysis uses this variable following Uslaner's (2011) notion that ethnic diversity is a proxy for the spatial concentration of racial minorities (residential segregation), and ethnic diversity itself has a minor influence on trust. The

conceptual logic behind this variable also corresponds to Hou and Wu's (2009) empirical observation that it is indeed a high concentration of racial minorities (rather than a balanced mix of racial groups) that reduces trust among Whites.

Figure 1 presents the bivariate relationship between concentration of co-ethnics, concentration of visible minorities and trust for Whites. While our regression models focus on the effects of neighbourhood diversity at the individual level, Figure 1 shows this relationship in aggregate terms (measured at neighbourhood level) and depicts how diversity influences trust within urban neighbourhoods for Whites. Figure 1 shows a positive relationship between co-ethnic concentration and trust (top panel) and a negative relationship between the percent of visible minorities and trust (low panel). Figure 1 illustrates that Whites become more mistrusting of their neighbors as the proportion of racial minorities in the neighbourhood increases. This finding parallels previous research that demonstrates that Whites have a negative reaction to an increasing presence of racial minorities (e.g., Oliver and Wong 2003; Schneider 2008; Taylor 1998).

Figure 2 presents the bivariate relationship between concentration of co-ethnics, concentration of visible minorities and trust at neighbourhood level for visible minorities. Unlike the data for Whites, for visible minorities, there is virtually no relationship between co-ethnic concentration and trust at the neighbourhood level (top panel). However, consistent with Figure 1, there is a negative relationship between concentration of other minorities and trust at the neighbourhood level (low panel). It appears that a larger presence of members of other minorities corresponds to a decline in the level of localized trust.
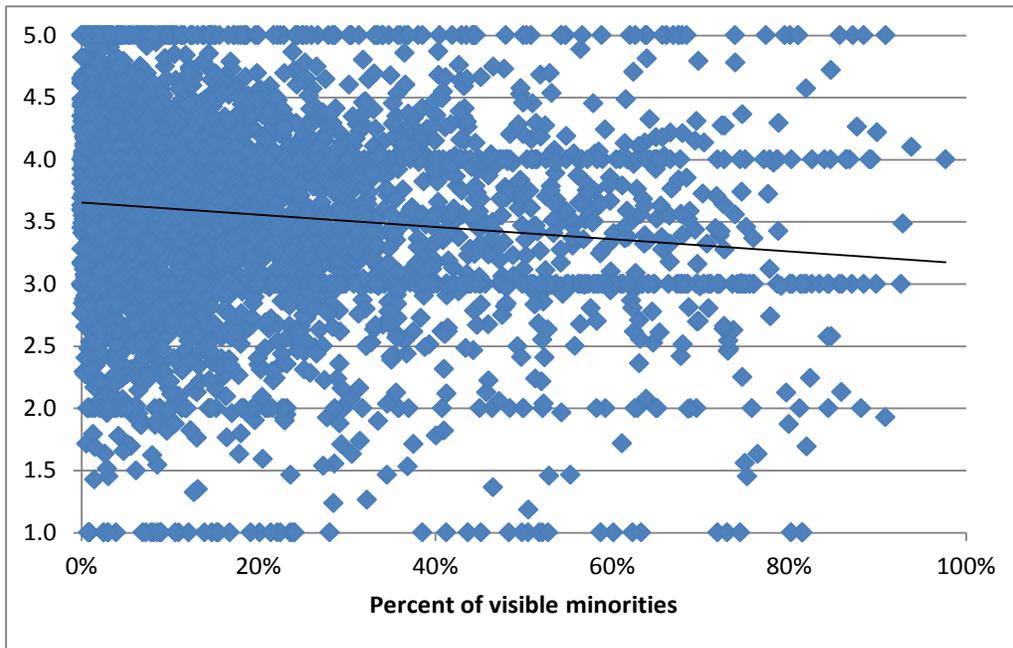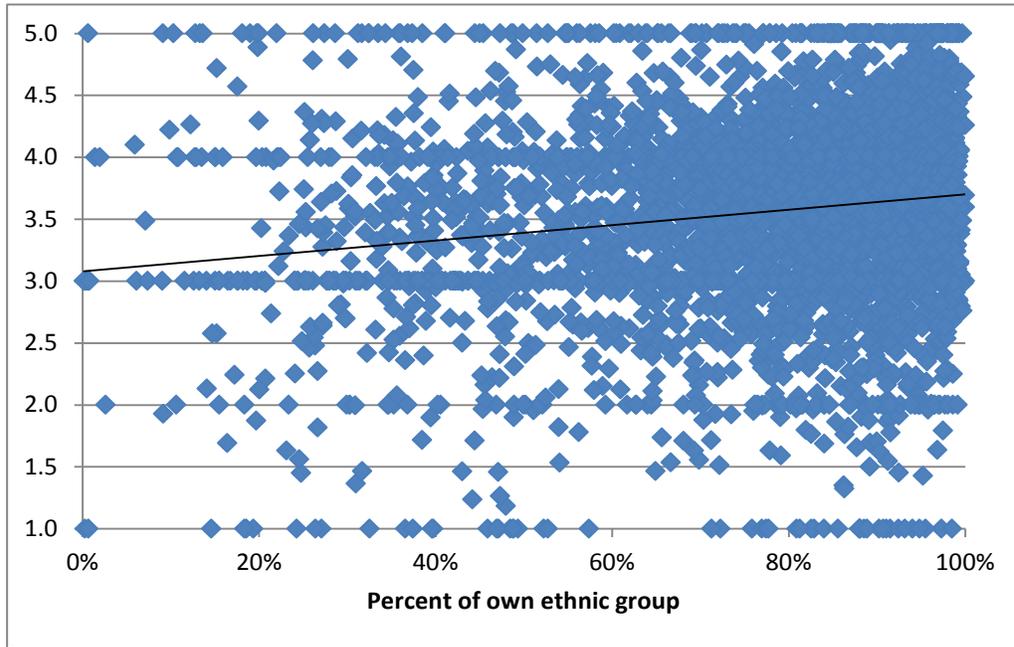
Data sources: the 2006 census 20% sample micro data file, the 2008 and 2009 General Social Survey.

FIGURE 1: Eᴛʜɴɪᴄ ᴇɴᴄʟᴀᴠᴇ, ᴍɪɴᴏʀɪᴛʏ ᴄᴏɴᴄᴇɴᴛʀᴀᴛɪᴏɴ ᴀɴᴅ ᴛʀᴜsᴛ ɪɴ ɴᴇɪɢʜʙᴏʀs ꜰᴏʀ ᴡʜɪᴛᴇs

FIGURE 2. Cᴏ-ᴇᴛʜɴɪᴄ
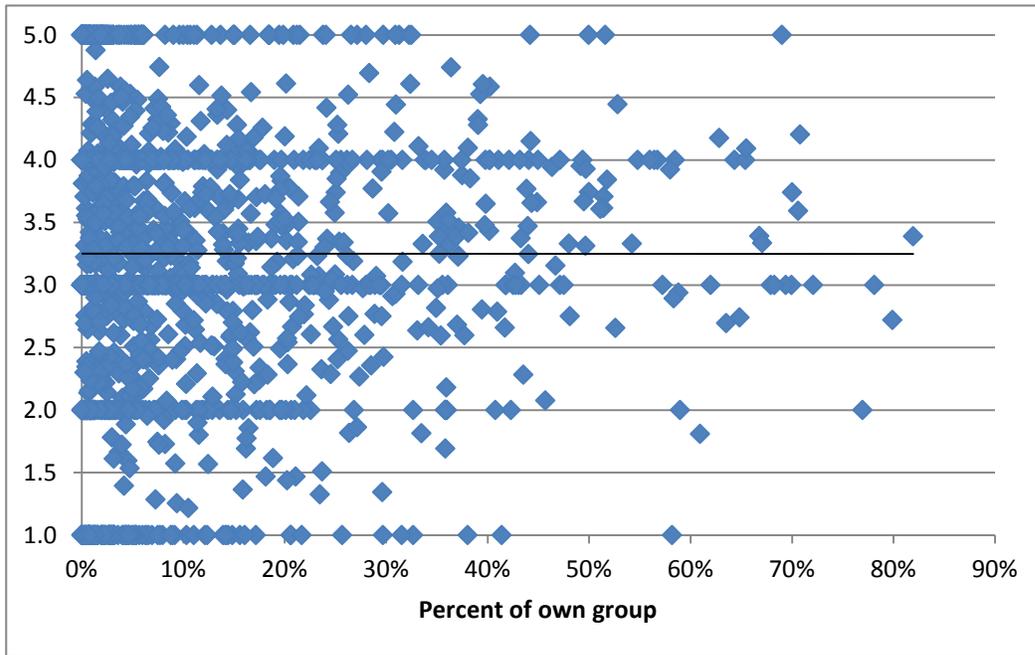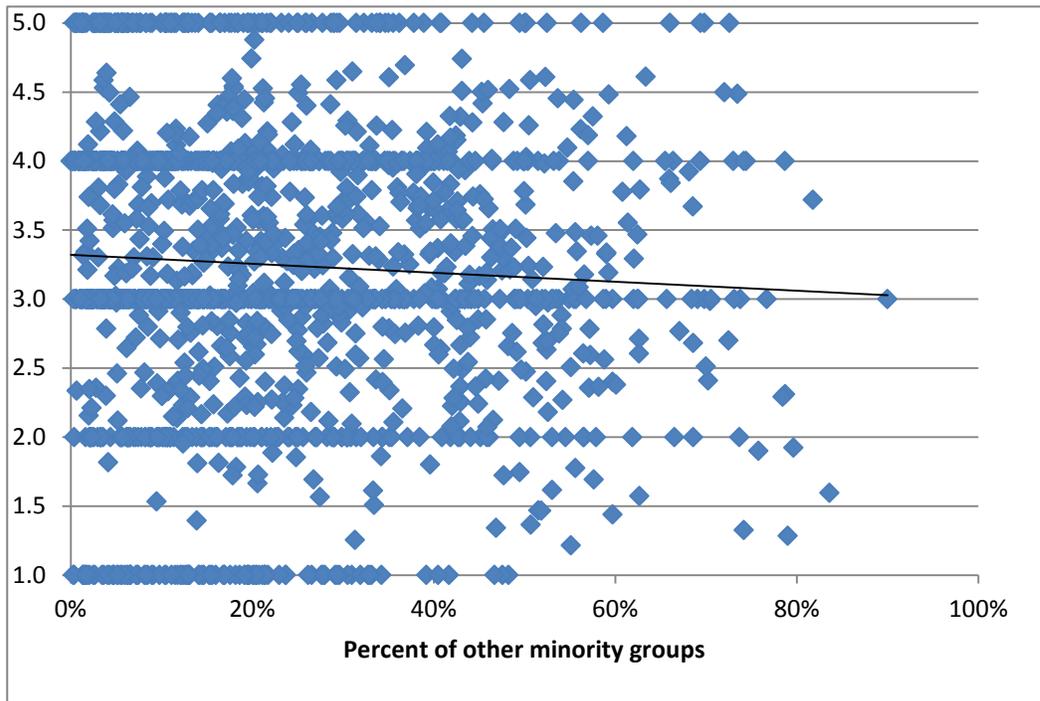
Data sources: the 2006 census 20% sample micro data file, the 2008 and 2009 General Social Survey.

CONCENTRATION, MINORITY CONCENTRATION, AND TRUST IN NEIGHBORS FOR MINORITIES

Turning to the individual-level data, we estimated a series of regression models to examine the relationship between ethno-racial compositions of urban neighbourhoods and trust in neighbors. The study conducts separate regression analysis for Whites and racial minorities. To date, most of the literature has approached the problem of ethnic diversification from the perspective of Whites, and few studies have considered the implications for racial minorities (for exceptions see Marschall and Stolle 2004; Oliver and Wong 2003; Wu, Schimmele, and Hou 2011). For comparative purposes, this study includes analysis of Whites, but the main empirical interest (and conceptual argument) is focused on racial minorities and the ecological determinants of trust among them. The key determinant is, of course, co-ethnic concentration or residence in ethnic communities or enclaves. The racial minority population is predominantly first-generation immigrants (79 percent, according to Table 1), and most others are the children of immigrants. Only about 1 percent of racial minorities are third- or higher- generation Canadians (Statistics Canada 2007). The regression models control for neighbourhood-level socioeconomic environment (and other ecological covariates), because the correlation between neighbourhood ethnic diversity and concentrated disadvantage suggests that the relationship between diversity and trust could be better accounted for by socioeconomic environment (see Letki 2008; Oliver and Mendelberg 2000; Sampson and Graif 2009).

Table 2 presents the OLS regressions of trust in neighbors for Whites. Model 1 presents the effect of co-ethnic concentration and Model 2 presents the effect of percentage of the neighbourhood consisting of racial minorities, controlling for the selected individual- and neighbourhood-level covariates.

Model 1 demonstrates that there is a significant and positive relationship between co-ethnic concentration and trust in neighbors among Whites. As Figure 1 shows, as the concentration of co-ethnics increases, trust in neighbors rises. This finding is consistent with our assumption that trust is a function of social relationships and density of co-ethnics underlies local social interaction. Model 2 demonstrates that there is a significant and negative relationship between trust in neighbors and percentage of racial minorities in the neighbourhood. Consistent with Figure 1, these findings suggest that Whites become more mistrusting of their neighbors as the percentage of racial minorities in the neighbourhood increases.

TABLE 2. ORDINARY LEAST SQUARES REGRESSION OF TRUST IN NEIGHBORS FOR WHITES: CANADA, 2006-2009

	MODEL 1			MODEL 2		
	B		ROBUST STANDARD ERROR	B		ROBUST STANDARD ERROR
% of own ethnic group	0.324	***	0.060	–		–
% of racial minorities	–		–	-0.245	**	0.080
Individual-level variables						
Age	0.013	***	0.001	0.013	***	0.001
Sex (Female = 1)	0.052	**	0.018	0.052	**	0.018
Marital status						
Widowed	0.096	*	0.037	0.095	*	0.037
Separated or divorced	-0.128	***	0.030	-0.129	***	0.030
Never married	-0.047		0.026	-0.047		0.026
Married or cohabiting (ref. category)						
Education						
Some post-secondary	-0.082	***	0.020	-0.084	***	0.020
High school	-0.088	**	0.029	-0.089	**	0.029
Less than high school	-0.084	**	0.029	-0.086	**	0.029
Bachelor's degree or higher (ref. category)						
Family income						
Lowest income (<$20,000)	-0.198	***	0.047	-0.199	***	0.047
Low middle income ($20,000-49,999)	-0.132	***	0.034	-0.133	***	0.034
Middle income ($50,000-79,999)	-0.124	***	0.028	-0.126	***	0.028
Upper middle income ($80,000-99,999)	-0.078	**	0.024	-0.080	**	0.024

Income not reported	-0.106	***	0.030	-0.106	***	0.030
Highest income (>=$100,000) (ref. category)						

TABLE 2. ORDINARY LEAST SQUARES REGRESSION OF TRUST IN NEIGHBORS FOR WHITES: CANADA, 2006-2009 (CONTINUED)

	MODEL 1			MODEL 2		
	B		ROBUST STANDARD ERROR	B		ROBUST STANDARD ERROR
Immigrant status (immigrant = 1)	-0.020		0.027	-0.020		0.027
Home language (1 = not English or French)	0.011		0.056	0.010		0.056
Years lived in the current neighbourhood						
Less than 1 year	-0.172	***	0.038	-0.171	***	0.039
1 - 3 years	-0.102	***	0.028	-0.100	***	0.028
3 - 5 years	-0.109	***	0.029	-0.108	***	0.029
Over 5 years (reference category)						
Homeownership (1 = yes)	0.306	***	0.026	0.305	***	0.026
Location						
Montreal	-0.067	*	0.031	-0.055		0.032
Vancouver	0.139	***	0.040	0.136	**	0.040
Other large CMAs with population over 500k	0.000		0.027	0.003		0.028
Small CMAs	0.067	*	0.029	0.076	*	0.031
Large census agglomerations that can be tracted	0.019		0.041	0.023		0.043
Toronto (reference category)						
Neighbourhood-level variables						
Income inequality	0.000		0.000	0.000		0.000
Low-income rate	-0.738	***	0.124	-0.811	***	0.126
% with university degrees	0.675	***	0.084	0.686	***	0.084
% of non-movers	0.268	**	0.083	0.276	**	0.083
% of seniors	0.079		0.143	0.119		0.144
Logged population density	-0.033	***	0.007	-0.033	***	0.007
Intercept	2.678	***	0.107	2.974	***	0.090
R square	0.140			0.138		

*** significant at $p < 0.001$; ** p < 0.01; * $p < 0.05$

Sources: the 2006 census 20% sample microdata file, the 2008 and 2009 General Social Survey.

For Whites, the selected control variables generally function in the expected directions. Trust in neighbors increases with age and females tend to be more trusting than males. In comparison to the married or cohabiting, the widowed are more trusting, but the separated/divorced are less trusting. In comparison to those with a Bachelor's degree or higher, people with lower levels of educational attainment are less trusting. Homeowners are more trusting of neighbors than renters. Higher levels of income have a positive effect on trust. In addition, longer residence in the neighbourhood increases trust. As expected, low neighbourhood-level socioeconomic status has a negative effect on trust.

Table 3 presents the OLS regressions of trust in neighbors for racial minorities. The modeling strategy here is similar as in the previous table. Model 1 demonstrates that there is a significant and positive relationship for between co-ethnic concentration and trust in neighbors among racial minorities. The direction of the relationship is consistent with our expectations. Model 2 shows that the percentage of other racial minorities in the neighbourhood has a non-significant effect on trust in neighbors for racial minorities. This is an unsurprising result. As relative newcomers (immigrants), racial minorities are less prone than Whites to be sensitive to neighbourhood transition or shifts in the ethno-racial landscape.

In certain cases, the effects of the covariates have different effects for racial minorities than we observed for Whites. The effect of sex is opposite, with females being less trusting than males. The effect of household income is comparatively weaker. At least, it appears that low-income is not as harmful for trust among racial minorities as it is among Whites. Moreover, most of the neighbourhood-level variables are non-significant.

TABLE 3. ORDINARY LEAST SQUARES REGRESSION OF TRUST IN NEIGHBORS FOR VISIBLE MINORITIES: CANADA, 2006-2009

	MODEL 1			MODEL 2		
	B		ROBUST STANDARD ERROR	B		ROBUST STANDARD ERROR
% of own ethnic group	0.298	*	0.138	–		–
% of other racial minorities	–		–	-0.159		0.159
Individual-level variables						
Age	0.009	***	0.002	0.009	***	0.002
Sex (Female = 1)	-0.098	*	0.045	-0.101	*	0.045
Marital status						
Widowed	-0.205		0.161	-0.199		0.161
Separated or divorced	-0.200	*	0.096	-0.202	*	0.097
Never married	-0.178	**	0.064	-0.176	**	0.064
Married or cohabiting (reference category)						
Education						
Some post-secondary	-0.172	**	0.053	-0.175	**	0.053
High school	-0.298	**	0.096	-0.295	**	0.096
Less than high school	-0.047		0.082	-0.050		0.082
Bachelor's degree or higher (reference category)						
Family income						
Lowest income (<$20,000)	-0.089		0.105	-0.081		0.105
Low middle income ($20,000-49,999)	-0.231	*	0.091	-0.229	*	0.091
Middle income ($50,000-79,999)	-0.221	**	0.078	-0.219	**	0.078
Upper middle income ($80,000-99,999)	-0.069		0.072	-0.071		0.072
Income not reported	-0.131		0.074	-0.127		0.075
Highest income (>=$100,000) (reference category)						
Immigrant status (immigrant = 1)	0.016		0.062	0.019		0.062
Home language (1 = not English or French)	-0.021		0.048	-0.012		0.048
Years lived in the current neighbourhood						
Less than 1 year	-0.162		0.085	-0.174	*	0.085
1 - 3 years	0.010		0.061	0.006		0.061
3 - 5 years	0.072		0.069	0.067		0.069
Over 5 years (reference category)						

TABLE 3. ORDINARY LEAST SQUARES REGRESSION OF TRUST IN NEIGHBORS FOR VISIBLE MINORITIES: CANADA, 2006-2009 (CONTINUED)

	MODEL 1			MODEL 2	
	B		ROBUST STANDARD ERROR	B	ROBUST STANDARD ERROR
Homeownership (1 = yes)	0.174	**	0.060	0.190 **	0.060
Location					
Montreal	-0.058		0.077	-0.118	0.078
Vancouver	0.045		0.065	0.046	0.065
Other large CMAs with population over 500k	-0.016		0.066	-0.071	0.068
Small CMAs	0.147		0.086	0.081	0.089
Large census agglomerations that can be tracted	0.456	*	0.195	0.378	0.196
Toronto (reference category)					
Neighbourhood-level variables					
Income inequality	0.000		0.000	0.000	0.000
Low-income rate	-0.598		0.267	-0.416	0.274
% with university degrees	0.657	**	0.217	0.632 **	0.216
% of non-movers	0.066		0.170	0.045	0.168
% of seniors	0.606		0.438	0.420	0.442
Logged population density	-0.027		0.025	-0.025	0.025
Intercept	3.115	***	0.258	3.197 ***	0.256
R square	0.102			0.100	

*** significant at $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Sources: the 2006 census 20% sample microdata file, the 2008 and 2009 General Social Survey.

5. SUMMARY AND CONCLUSION

The purpose of this study was to examine the relationship between the ethno-racial compositions of urban neighbourhoods and trust in neighbors. The OLS regressions examined this problem using two measures of ethno-racial context, controlling for socioeconomic context, neighbourhood stability, and other well-established covariates. First, the study measured the effects of

co-ethnic concentration. In the past, immigrants have formed ethnic communities or enclaves to cope with the challenges of resettlement, such as limited social capital or employment opportunities in the host population (see Portes and Sensenbrenner 1993). These represented tight-knit social networks and increased interdependence among co-ethnics. Following Granovetter's (1985) concept of "embeddedness" and Hardin's (2002) concept of "encapsulated interest," we argued that high concentrations of co-ethnics would increase trust. This is because trust is a function of social relationships and the mutual interests within them. These factors reduce the risk involved with trust since relationships (or networks) increase knowledge about peoples' trustworthiness and represent the capacity to sanction malfeasant behavior (Coleman 1988). The strength of local social networks, following this logic, accounts for differences in trust across homogeneous and heterogeneous environments.

Second, the study measured the effect of concentration of racial minorities. Uslaner (2011) observes that ethnic diversity is the reason behind mistrust; rather, ethnic diversity actually reflects the effects of residential segregation of racial minorities, and the latter is the primary reason for mistrust. This is consistent with Hou and Wu's (2009) finding that it is the concentration of racial minorities, not diversity (a balanced mix of ethnic groups) that drives down trust. Though empirically distinct from concentration of co-ethnics, this measure also fits our conceptual argument about the importance of social relationships in generating fertile environments for the development of trust. According to Putnam (2007), the inhabitants of ethnically diverse neighbourhoods "hunker down" or withdraw from social relationship. He demonstrates that the inhabitants of these neighbourhoods are generally more mistrusting. This involves less trust in in-group members as well as in neighbors and racial out-groups. In contrast to homogeneous neighbourhoods, these places

seem to involve social disconnection (alienation) between people. The lack of meaningful social contact and unfamiliarity between the inhabitants of hetero-geneous environments is what breeds mistrust.

For the most part, our findings are consistent with these theoretical expec-tations. Our main focus was on racial minorities (immigrants), but the analysis included an examination of Whites for comparative purposes. Although immi-gration is leading to ethno-racial diversification, Whites remain the predomi-nant population group and thus dominate most Canadian neighbourhoods. Whites comprise less than a 50 percent share (Hou and Wu 2009) in only 356 (of 4,254) urban neighbourhoods. In terms of neighbourhood's transition, moreover, the effect of ethnic diversity is perhaps more profound for European-origin ethnic groups (long-time residents or non-immigrants) than for racial minorities. As Chicago School sociologists observed, community ties in neigh-bourhoods weaken with the in-migration of new population groups (Guest et al. 2006). This is because social networks are based on the co-ethnic density and stability of the neighbourhood population. The implication is that commu-nity succession – i.e., a process of in-migration and out-migration – changes the social context of social relationships for the inhabitants of the neighbour-hood. This is less a problem for newcomers who had no stake in the pre-ex-isting social network. For long-term residents, on the other hand, the changes associated with community succession are more glaring and consequential.

At least, in the short-term, the consequences of ethno-racial diversifica-tion do not appear to be positive for Whites. Putnam (2007) cautions against overblowing this finding, however, since immigration and ethnic diversity have long-term benefits. That said, following the Chicago School's argument that the age and stability of a community are important aspects of its social cohe-sion, community change does raise questions about its implications for local

social capital in the short-term. This is particularly true in situations where there is wide social distance between the long-term residents (Whites) and newcomers (racial minorities). To be sure, inter-group contact can reduce this problem and create links between racial groups, but this requires time and equal status among them (Pettigrew 1998; Putnam 2007). In the interim, the reaction of Whites to the rising presence of racial minorities has, unfortunately, lead to increases in prejudice and resistance against racial integration, although this outcome partly reflects the higher out-group hostility that associates with concentrated disadvantage or economic vulnerability (Oliver and Mendelberg 2000; Schneider 2008; Taylor 1998).

Our results lend support to the notion that ethno-racial diversification decreases trust in neighbors among Whites. Similar to Putnam (2009), the results demonstrate that interpersonal trust is highest in the most ethnically homogeneous neighbourhoods. That is, trust is a function of co-ethnic concentration; the more co-ethnics in the neighbourhood, the more trusting Whites are of their neighbors. In addition, their trust in neighbors decreases as the presence of racial minorities increases. As Hou and Wu (2009) observe, racial minority concentration parallels the declining dominance of the White population in the neighbourhood. Their findings demonstrate that ethnic diversity actually has a positive effect on trust. What increases mistrust among Whites is a loss of dominance in the neighbourhood. Our results are consistent with Hou and Wu's finding, and this suggests that it is the erosion of network density (not ethnic diversity) that is responsible for the decline in trust among Whites. In neighbourhoods with a high concentration of racial minorities, the comparative unfamiliarity with their neighbors and lack of social ties presumably augments their perception of the risk involved in trusting neighbors.

The results for racial minorities are also consistent with our expectations, albeit not as robust as we anticipated. For racial minorities, the concentration of co-ethnics also has a positive effect on trust in neighbors. The effect of concentration of racial minorities is non-significant. This latter finding is unsurprising, because the negative effect of racial minority concentration represents Whites' loss of neighbourhood dominance and is, thus, irrelevant for racial minorities.

If trust is a function of social relationships and co-ethnic networks are vital for racial minorities, a fairly strong relationship between co-ethnic concentration and trust in neighbors is the intuitive expectation. It is somewhat surprising that the effect of co-ethnic concentration for racial minorities is not stronger than for Whites. There are several possible reasons for the less than robust relationship. First, this finding could represent a data limitation. Our pooled data includes 3,141 racial minorities distributed across over 4,000 neighbourhoods. This poses obvious sample size difficulties for observing neighbor-level effects for racial minorities. Moreover, racial minorities largely live among other racial minorities or Whites, not in ethnic communities or enclaves. Hence, our finding about the effect of co-ethnic concentration for racial minorities should be interpreted with caution. Second, there is evidence that racial minorities are generally less trusting than Whites (Smith 2010), which could further weaken the effect of co-ethnic concentration for them. Finally, it is possible that co-ethnic networks are spread out across the metropolitan area, considering that modern transportation and communication has reduced the traditional importance of the neighbourhood in hosting and maintaining co-ethnic networks (Guest et al. 2006).

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APPENDIX 1. THE CORRELATION OF ETHNIC ENCLAVE AND OTHER MINORITY CONCENTRATION WITH OTHER NEIGHBOURHOOD VARIABLES

NEIGHBOURHOOD VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) % of own ethnic group							
(2) % of (other) racial minorities	-0.609						
(3) Income inequality	-0.051	0.063					
(4) Low-income rate	-0.285	0.361	0.005				
(5) % with university degrees	-0.151	0.224	0.365	-0.028			
(6) % of non-movers	0.226	-0.281	-0.095	-0.352	-0.193		
(7) % of seniors	0.094	-0.125	0.114	0.189	-0.011	0.143	
(8) Logged population density	-0.307	0.401	0.038	0.500	0.277	-0.268	0.140

Note: All correlation coefficients are statistically significant at $p < 0.001$, with the exception of income inequality and low-income rate.

Sources: the 2006 census 20% sample microdata file, and the 2002 Ethnic Diversity Survey.

APPENDIX 2. INSTRUMENTAL VARIABLE REGRESSION (WITH ROBUST STANDARD ERRORS) OF TRUST IN NEIGHBORS: CANADA, 2006-2009

	WHITES				VISIBLE MINORITIES			
% of own ethnic group	0.324		–		0.083		–	
% of (other) racial minorities	–		-0.228		–		-0.288	
Individual-level variables								
Age	0.013	***	0.013	***	0.009	***	0.009	***
Sex (Female = 1)	0.052	**	0.051	**	-0.101	*	-0.101	*
Marital status								
Widowed	0.096	*	0.095	*	-0.208		-0.190	
Separated or divorced	-0.128	***	-0.129	***	-0.202	*	-0.202	*
Never married	-0.047		-0.047		-0.179	**	-0.173	**
Married or cohabiting								
Education								
Some post-secondary	-0.082	***	-0.084	***	-0.174	**	-0.175	**
High school	-0.088	**	-0.089	**	-0.297	**	-0.294	**
Less than high school	-0.084	**	-0.086	**	-0.048		-0.050	
Bachelor's degree or higher								
Family income								
Lowest income (<$20,000)	-0.198	***	-0.199	***	-0.083		-0.082	
Low middle income ($20,000-49,999)	-0.132	***	-0.133	***	-0.228	*	-0.230	*
Middle income ($50,000-79,999)	-0.124	***	-0.126	***	-0.219	**	-0.219	**
Upper middle income ($80,000-99,999)	-0.078	**	-0.080	**	-0.070		-0.070	
Income not reported	-0.106	***	-0.106	***	-0.127		-0.129	
Highest income (>=$100,000)								
Immigrant status (immigrant = 1)	-0.020		-0.020		0.016		0.021	
Home language (1 = not English or French)	0.011		0.009		-0.013		-0.013	
Years lived in the current neighbourhood								
Less than 1 year	-0.172	***	-0.171	***	-0.171	*	-0.174	*
1 - 3 years	-0.102	***	-0.100	***	0.007		0.007	
3 - 5 years	-0.109	***	-0.108	***	0.070		0.065	
Over 5 yearsa								
Homeownership (1 = yes)	0.306	***	0.304	***	0.185	**	0.192	**
Location								
Montreal	-0.067	*	-0.053		-0.082		-0.141	
Vancouver	0.139	***	0.135	**	0.054		0.037	
Other large CMAs with population over 500k	0.000		0.006		-0.036		-0.094	
Small CMAs	0.067	*	0.078	*	0.126		0.051	

APPENDIX 2. INSTRUMENTAL VARIABLE REGRESSION (WITH ROBUST STANDARD ERRORS) OF TRUST IN NEIGHBORS: CANADA, 2006-2009 (CONTINUED)

	WHITES				VISIBLE MINORITIES			
Other large census agglomerations	0.019		0.026		0.431	*	0.343	
Toronto								
Neighbourhood-level variables								
Income inequality	0.000		0.000		0.000		0.000	
Low-income rate	-0.738	***	-0.820	***	-0.523		-0.353	
% with university degrees	0.675	***	0.684	***	0.648	**	0.622	**
% of non-movers	0.268	**	0.278	***	0.066		0.029	
% of seniors	0.079		0.125		0.541		0.342	
Logged population density	-0.033	***	-0.033	***	-0.026		-0.024	
Intercept	2.678	***	2.971	***	3.133	***	3.245	***
R square	0.140		0.138		0.101		0.100	
Davidson-MacKinnon test	n.s.		n.s.		n.s.		n.s.	

*** significant at $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Sources: the 2006 census 20% sample microdata file, and the 2008 and 2009 General Social Survey.

APPENDIX 3. ORDERED LOGISTIC REGRESSION (WITH ROBUST STANDARD ERRORS) OF TRUST IN NEIGHBORS: CANADA, 2006-2009

	WHITES		VISIBLE MINORITIES	
% of own ethnic group	0.583 ***	–	0.510 *	–
% of (other) racial minorities	–	-0.442 **	–	-0.254
Individual-level variables				
Age	0.026 ***	0.026 ***	0.017 ***	0.017 ***
Sex (Female = 1)	0.096 **	0.096 **	-0.175 *	-0.179 *
Marital status				
Widowed	0.254 **	0.252 **	-0.431	-0.421
Separated or divorced	-0.255 ***	-0.256 ***	-0.375 *	-0.376 *
Never married	-0.060	-0.060	-0.311 **	-0.307 **
Married or cohabitinga				
Education				
Some post-secondary	-0.117 **	-0.122 ***	-0.294 **	-0.300 **
High school	-0.115 *	-0.116 *	-0.551 **	-0.542 **
Less than high school	-0.067	-0.069	-0.030	-0.034
Bachelor's degree or higher				
Family income				
Lowest income (<$20,000)	-0.353 ***	-0.354 ***	-0.151	-0.138
Low middle income ($20,000-49,999)	-0.238 ***	-0.241 ***	-0.364 *	-0.364 *
Middle income ($50,000-79,999)	-0.224 ***	-0.227 ***	-0.366 **	-0.363 **
Upper middle income ($80,000-99,999)	-0.140 **	-0.143 **	-0.149	-0.154
Income not reported	-0.155 **	-0.154 **	-0.196	-0.189
Highest income (>=$100,000)				
Immigrant status (immigrant = 1)	-0.045	-0.045	0.040	0.046
Home language (1 = not English or French)	0.031	0.029	-0.047	-0.031
Years lived in the current neigbhourhood				
Less than 1 year	-0.295 ***	-0.293 ***	-0.250	-0.271
1 - 3 years	-0.166 **	-0.163 **	0.033	0.025
3 - 5 years	-0.191 ***	-0.189 ***	0.122	0.114
Over 5 years				
Homeownership (1 = yes)	0.542 ***	0.540 ***	0.317 **	0.344 **
Location				
Montreal	-0.139 *	-0.119 *	-0.126	-0.225
Vancouver	0.251 **	0.245 **	0.069	0.076
Other large CMAs with population over 500k	-0.006	0.000	-0.064	-0.153
Small CMAs	0.144 **	0.158 **	0.265	0.157
Other large census agglomerations	0.045	0.054	1.021 **	0.898 *

APPENDIX 3. ORDERED LOGISTIC REGRESSION (WITH ROBUST STANDARD ERRORS) OF TRUST IN NEIGHBORS: CANADA, 2006-2009 (CONTINUED)

	WHITES				VISIBLE MINORITIES			
Toronto								
Neigbourhood-level variables								
Income inequality	0.000		0.000		0.000		0.000	
Low-income rate	-1.319	***	-1.450	***	-1.083	*	-0.772	
% with university degrees	1.267	***	1.285	***	1.152	**	1.102	**
% of non-movers	0.481	**	0.495	**	0.206		0.171	
% of seniors	0.122		0.196		0.994		0.692	
Logged population density	-0.065	***	-0.065	***	-0.045		-0.042	
Intercept (1)	-1.528		-2.058		-2.213		-2.347	
Intercept (2)	-0.307		-0.838		-1.043		-1.178	
Intercept (3)	1.556		1.021		0.751		0.615	
Intercept (4)	3.161		2.625		2.333		2.195	
Mode chi square (d.f. = 31)	1969		1964		246		243	

*** significant at $p < 0.001$; ** p < 0.01; * $p < 0.05$

Sources: the 2006 census 20% sample microdata file,and the 2008 and 2009 General Social Survey.