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Heterogeneity and Harmony: Neighbouring Relationships among Whites in Ethnically Diverse Neighbourhoods in Seattle

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Abstract

Does ethnic heterogeneity in neighbourhoods create co-operative or conflict-oriented relationships among residents? Social theorists have long noted both the positive and negative aspects of heterogeneity, but the limited research on large samples of neighbourhoods documents ambiguous or weak effects. In this survey-based study of Seattle, it is found that ethnic heterogeneity is among the strongest community characteristics that negatively predict the degree to which Whites view neighbour relations as calm, trusting and helpful. In addition, it is found that Whites in heterogeneous neighbourhoods are somewhat less likely than other Whites to report that they would miss the neighbourhood if they moved away. However, the negative effects of heterogeneity should be interpreted cautiously. Residents of heterogeneous areas do not view their neighbour relationships as unacceptable on an absolute scale. Moreover, much of the tendency for Whites to have low sentimental ties in diverse neighbourhoods is found to be due to the relatively lower level of affluence and newer age of these areas.

One of the most dominant forces of US metropolitan development in the years after World War II is segregation. Studies of neighbourhoods within metropolitan areas have emphasised that residential segregation

often remains high. Specific groups create neighbourhood concentrations or niches, leading to little interaction across ethnic divides (Massey and Denton, 1993). Yet, while residential segregation by ethnic origin

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remains significant, it is also true that many neighbourhoods are becoming increasingly diverse (Logan *et al.*, 2004). The presence of neighbourhood ethnic diversity in the US reflects a variety of demographic factors including historically high levels of immigration from all parts of the world (Frey, 1996), slowing rates of long-term replacement of one group by another (Price-Spartlen and Guest, 2002), long-term residential stability of groups in multiethnic areas (Lee and Wood, 1991) and the process of gentrification in which relatively well-to-do members of one group invade neighbourhoods of lower-income members of another group because they find the housing suitable and affordable (Freeman, 2005).

Changing levels of population diversity may have important influences on the tenor of life in major US metropolitan centres. While the influence of population heterogeneity on social relations is strongly contested (Fainstein, 2005), little empirical research investigates the issue across a large number of neighbourhoods. Focusing on the attitudes and behaviours of non-Hispanic Whites in nearly 300 Seattle neighbourhoods, this study analyses the relationship between population ethnic diversity and what we describe as 'social harmony', or the extent to which neighbours live and work co-operatively with each other. Harmony is measured by the degree to which neighbourhoods are characterised by calm (peaceful), trusting and helpful relationships among the residents. We also assess the consequences of living in heterogeneous neighbourhoods, in conjunction with the social climate, for the overall feelings that individuals have about leaving them.

The study measures individual and social characteristics using a major telephone survey among Seattle residents in 2002/03. Responses to various questions were matched to the characteristics of the respondents' neighbourhoods as measured in 2000 by US Census Bureau statistics for block groups, or

areas encompassing a few blocks. While the survey sampled residents of various ethnic identifications, we focus on non-Hispanic Whites because, as the dominant ethnic group in most cities, Seattle included, the full integration of minorities is predicated upon the willingness of Whites to share a neighbourhood.

Previous Theorising

How might racial and ethnic heterogeneity within a community shape relationships among residents? Social scientists generally argue that neighbourhood heterogeneity, for a variety of reasons, has a negative effect on interpersonal relationships. Drawing from European theorists such as Simmel, Chicago School sociologists viewed the negative effect of population heterogeneity on social relationships as a kind of fundamental axiom about the nature of urban life, although this idea was not tested at the time in any rigorous manner (Kasarda and Janowitz, 1974). The heterogeneity of cities, according to this view, created lonely, competitive social relationships (Wirth, 1938).

Park (1925, 1926, 1929, 1936), a prominent Chicago School sociologist, assumed that competition defined the overall nature of urban life, but he also focused on how social relationships differed across neighbourhoods. He viewed those with homogeneous ethnic populations as being characterised by shared sentiments and lively co-operation due to their common background. Local ties were also encouraged by the realisation that 'getting ahead' was a collective process in which one advanced socially and economically by providing mutual support for one's group. Moreover, Park believed that homogeneous neighbourhoods were constantly threatened by 'invasion' from other ethnic groups, leading the residents to unite against outside invaders. In contrast, areas of mixed population character and changing land use were

believed to have anomic and estranged social ties. In empirical research, Chicago School sociologists infrequently studied the actual nature of neighbourhood social relationships, but rather focused on indirect indicators such as mental illness (Faris and Dunham, 1939) and crime (Shaw and McKay, 1942/1969).

The negative effects of ethnic heterogeneity on social relationships in Chicago were documented in the post-World-War-II period by Molotch and Suttles. In a study of the racially transitional South Shore area, Molotch (1969) reported that, even though large numbers of both Whites and Blacks lived in the community, there was little transracial solidarity beyond the most superficial level. Individuals of different racial backgrounds expressed little interest in, or respect for, each other. In contrast, Suttles (1968) focused on an area that had more ethnic stability but was occupied by four specific ethnic groups that lacked the population numbers to dominate the other groups. Given the potential for conflict among these groups, Suttles reported that they had geographically divided the sections of the neighbourhood and community institutions into sub-communities that rarely interacted with each other.

While in agreement with many of the Chicago School conclusions, Gans provided a somewhat different perspective on how population heterogeneity affects community social relationships. In field studies of slums and middle-class suburbs in the post-World-War-II era, Gans (1962a, 1962b, 1963, 1967) argued that population characteristics such as social class, race/ethnicity and religion created distinct cultural sub-divisions within contemporary American society so that individuals of different backgrounds often had different personal goals and lifestyles. In contrast to the Chicago School, Gans viewed neighbourhood conflict among different social groups as reflecting less a contest over spatial supremacy than a struggle over

enduring intraethnic values. He noted, for instance, that

If neighbors are too diverse, differences of behavior or attitude may develop which can lead to coolness or even conflict. For example, when children who are being reared by different methods come into conflict, disciplinary measures by their parents will reveal differences in ways of rewarding and punishing (Gans, 1968, p. 155).

Gans, however, did not favour extreme neighbourhood homogeneity as a social policy because it would lead to unacceptably high conflict between neighbourhoods of different races, classes and religions.

Contrary to the previous set of observations, other theorists argue that neighbourhood heterogeneity may be positive for interpersonal relationships. Some of this discussion focuses on what might be called the contact hypothesis, described by Hogg as

a prevalent belief that close and pleasant interpersonal contact between people from different groups is probably the best way to achieve social harmony (Hogg, 2003, p. 493).

However, contact among unlike people, history teaches, often leads to conflict, even mass killings. As Hogg notes in a review of the literature

For contact to be effective it needs to be prolonged and cooperative, it needs to occur within an official and institutional climate that strongly encourages integration, and it needs to be between equal status groups (Hogg, 2003, p. 493).

Considering the positive implications of neighbourhood heterogeneity, Jacobs (1961) has argued strongly that heterogeneity is virtuous for the larger society, a point largely underscored in the current residential segregation literature (Charles, 2003; Massey and Denton, 1993), some of which documents

that, because of strong barriers to mobility, Blacks must live in neighbourhoods with fewer resources and amenities than Whites of similar background (Massey *et al.*, 1987). Drawing from real-life examples such as New York's Greenwich Village, Jacobs sees contact and activities among unlike people as enhancing new ideas and ways of thinking, so that the tenor of neighbourhood life becomes more co-operative. In this perspective, heterogeneity is viewed as stimulating interaction and activities among unlike individuals due to the need to negotiate openly with each other to maintain stable relationships (see also Sennett, 1970, pp. 143–144). In addition, heterogeneity often requires mutual interdependence (for instance, local restaurants depend on nearby residents) and thus can lead to a pattern of co-operation, or at least mutual tolerance.

Jacobs' argument primarily focuses on the benefits of heterogeneous land uses such as mixing employment activity within residential neighbourhoods. Yet, clearly, she believes that population heterogeneity operates separately from heterogeneous land use to encourage all types of social interaction. She notes that

The cross-links that enable a district to function as a Thing are neither vague nor mysterious. They consist of working relationships among specific people, many of them without much else in common than that they share a fragment of geography (Jacobs, 1961, p. 133).

In short, there are reasons to believe that heterogeneity will both positively and negatively affect neighbouring relations. Given the limited empirical research on neighbourhood heterogeneity and harmony, our primary goal in this study is documentation of whether the two are positively, negatively or not at all related. The question of why the relationship may exist is important, as the literature indicates, but it is impossible for us to resolve all these issues in one study.

Previous Empirical Research

Previous empirical research with the greatest relevance to this study compares the relationship of population heterogeneity with social relationships across a number of neighbourhoods. Comparisons of single matched neighbourhoods (homogeneous versus heterogeneous) are especially fraught with problems since any differences between them may stem from other social characteristics such as socioeconomic status and residential stability. While a review of previous empirical studies is useful, the literature includes no direct analysis of the central issue in this paper—the relationship of ethnic heterogeneity to perceived social harmony.¹

Some studies have compared the effects of different population heterogeneity measures on neighbourhood social relationships for a handful of geographical units. At best, the reported effects are weak. In one study, Unger and Wandersman (1982) investigated the role of homogeneity in socioeconomic status, the presence of children and racial composition as predictors of the degree of neighbour interaction across 20 city blocks. Controlling for other block characteristics, they found that only socioeconomic diversity depressed the degree of overall neighbouring. They did find, however, a significant tendency for Black residents living in predominantly Black blocks to neighbour more than those living in predominantly White blocks. In a related study of 12 Indianapolis neighbourhoods, Woolever (1992) also found weak effects of various indicators of population diversity on social behaviour. She notes that “In general, residents did not respond to social heterogeneity at the neighbourhood level” (Woolever, 1992, p. 112).

Using a large sample of census tracts, Gerson *et al.* (1977) analysed data from an individual-level survey about racial integration, conducted by the US National Opinion Research Center. Characteristics of neighbourhoods

across the US were appended to the individual records of White, non-southern, urban respondents. The authors analysed how the racial composition of the White respondents' neighbourhoods affected various measures of attachment. By their admission, the authors found that contextual effects of several variables were almost universally small in absolute size (although often statistically significant), once individual-level predictors are controlled. In their summary table, Gerson *et al.* (1977, p. 161) reported that the presence of Blacks in the same neighbourhoods as their White respondents had slight negative effects on the degree of social neighbouring (beta = -0.09) and on happiness with their residential location (beta = -0.07). Presence of Blacks had slight positive effects on local 'institutional' ties (beta = 0.06). Yet, the partial effects of the presence of Blacks were extremely weak on organisational involvement, presence of neighbourhood kin, presence of neighbourhood friends and sadness at leaving the neighbourhood.

According to the Chicago School perspective, neighbourhood heterogeneity should be related to crime rates, partly because high levels indicate that the co-operative social order has broken down (Bursik and Webb, 1982). Research on Seattle finds that racial heterogeneity is positively related to crime rates across census tracts, both at single time-points and longitudinally (Kubrin, 2000; Warner and Rountree, 1997). However, few studies have explicated the relationships among heterogeneity, crime rates and other features of the social order. In one exception, Sampson and Groves (1989) examined the relationships among racial/ethnic heterogeneity, social ties and crime rates in a sample of British communities. They found that heterogeneity was positively related to crime, but that levels of social interaction did not generally serve as an intervening explanatory variable (see also Warner and Rountree, 1997, p. 529). Some of the communities that Sampson and

Groves studied were cities of several hundred thousand residents, making ambiguous the applicability of the results to blocks or neighbourhoods comprised of a few blocks. In a study of US central-city neighbourhoods, Bellair (1997) found contrasting results. Racial heterogeneity was a strong predictor of low levels of social interaction and had a positive influence on crime rates directly and through the mediating influence of social interaction.

In sum, despite compelling theoretical reasons to expect a strong relationship (both positive and negative) to exist between neighbourhood heterogeneity and intergroup relations, the existing empirical literature suggests moderate to weak negative effects. At the same time, there have been relatively few empirical tests to draw definitive conclusions. More importantly, most of the existing research has examined these issues for a small number of neighbourhoods. In the current study, we build on this literature by considering how racial and ethnic heterogeneity affects Whites' perception of neighbour relations in nearly 300 neighbourhoods in the city of Seattle. Next, we outline our expectations on these issues given the context of Seattle.

Expectations for Seattle

In many cities, tests for the importance of racial heterogeneity are often difficult to conduct because residential segregation has largely created isolated social worlds for specific groups (Massey and Denton, 1993). While Seattle's population is predominantly White, it does include sizeable populations of Blacks and Asians and, consistent with other metropolitan areas, the Hispanic population is growing rapidly. Equally important, the 'minority' populations, while marked by residential segregation within the city, are not characterised by the extreme spatial isolation that is found in many other cities. Across the 568 Seattle block groups reported

in the 2000 census, the index of dissimilarity between Whites and African Americans was 65, among those claiming one race only. (The minimum value is 0 and the maximum value is 100.) While 65 is a high absolute value, it is not as high as typically reported for American cities (Logan *et al.*, 2004). The Seattle index was somewhat lower when comparing the distribution of Whites with Asian Americans (44).

On a map, Seattle appears geographically split into north and south parts (what appear to be ends of a barbell) that are divided by waterways. In general, the population of the north end is predominantly White, with some representation of Asian Americans, especially in areas with apartment complexes. The south end is much more ethnically diverse, with a large number of mixed areas. Some of the neighbourhoods in the south end have undergone racial change in the past 20 years, experiencing gentrification leading to the displacement of Blacks. Other parts of the south end have been characterised by the immigration of Asian Americans and Hispanics.² There are, in fact, no large sections of the city that could be called ghettos where the population contains almost no Whites. Another feature of Seattle's geography is the many elevated areas with well-built owner-occupied homes and predominantly White populations that overlook the major waterways, often in close proximity to areas containing larger proportions of people of colour.

The possible negative effects of heterogeneity on social harmony may be less evident in Seattle than elsewhere. Seattle has a well-deserved reputation for ethnic tolerance. Workplaces of major industrial sectors such as airplane manufacturing, computer software, higher education and health care have been relatively integrated for many decades. At the turn of the 21st century, the state governor was a Chinese American and Seattle was a bastion of his voting support. In the past 10 years, Seattle has elected an African American

mayor and the current chief executive of King County (which includes Seattle) is African American.

Yet while Seattle may be more 'liberal' than other parts of the US, it is eminently American in its history, culture and social milieu. The history of relationships in the late 20th century among such groups as Whites, Blacks, Asian Americans and Hispanic Americans demonstrates rather conclusively that ethnicity is still an important dividing line in the US. In many metropolitan areas, there are still difficulties in maintaining ethnically heterogeneous neighbourhoods. Surveys show that, in some areas, Whites are displeased with the idea of too many African Americans moving into their communities (Farley *et al.*, 1994; Bobo and Zubrinsky, 1996).

As Gans has suggested, there are likely to be sizeable differences in lifestyle among major social groups that can produce tension or misunderstanding. These include differences in language, use of the home and nearby streets, social etiquette, dress style, musical tastes and culinary patterns. Some Whites are likely to interpret the behaviour of other groups as essentially a 'challenge'. This may occur even though this behaviour is actually quite benign in intent. Social class differences by ethnicity may further affect neighbouring relationships.

While heterogeneous neighbourhoods in Seattle are likely to be relatively low on social harmony, some of the relationship may be attenuated by controlling for other individual and community characteristics. Previous research has shown that individual characteristics such as affluence, homeownership and length of residence are associated with Seattle neighbourhood interaction patterns and that these characteristics are likely to be selectively distributed between heterogeneous and homogeneous neighbourhoods (Guest *et al.*, 2006). Two potentially important contextual characteristics are the socio-economic status and residential stability of

areas, characteristics previously found to correlate with various aspects of community social attachment (Guest and Lee, 1983; Sampson *et al.*, 1999).

Another potentially important factor is the age of the area, or its general period of development. According to some notions about neighbourhood life-cycles (Hoover and Vernon, 1962), ethnic homogeneity characterises areas at an early stage of development, but over time, areas increase in heterogeneity, especially as the housing units become sub-divided and the population declines in socioeconomic status. In Seattle, however, some of the oldest neighbourhoods are located at the highest elevations and along the waterways, and they are both affluent and homogeneously White. Although these neighbourhoods are older, codes of behaviour may have developed to encourage co-operative and orderly relationships among neighbours.

Data and Methods

The Sample

Individual-level data are drawn from the Seattle neighbourhoods and Crime Survey (SNACS), a multilevel survey of adults over 18 in 5402 households within 123 Seattle census tracts. The survey combined three sampling designs. First, a stratified cluster sample randomly selected two block groups for each census tract and eight households per block group. Secondly, an ethnic over-sample randomly selected two households within each of the two blocks (with the highest rates of minorities) for each of 141 block groups with the highest proportions of minorities. Thirdly, a replication sample randomly selected two households in each of six street segments selected in the earlier Seattle Criminal Victimization Survey of 100 census tracts (Miethe and Meier, 1994). A telephone survey of one adult per household

yielded an overall response rate of 51.3 per cent, using the CASRO 4-response formula. Included in this rate are some respondents (10.5 per cent) who decided to answer the survey by mail rather than telephone. The percentage response rate by sample was: random, 51.6; ethnic, 48.1; replication, 53.7.

In this paper, we analyse the relationship between heterogeneity and neighbouring only for the (non-Hispanic) White sample that could be linked with census block groups having reported census population data. Ethnic identification in the survey was determined by a question that asked, "Which of the following would you consider to be your race or ethnicity?". Respondents could make multiple choices from the following categories: White, Black or African American, Asian, Pacific Islander, Hispanic or Latino, Native American, Other. Consistent with 2000 census results, the vast majority of respondents picked only one category. We have selected those individuals who chose only the 'White' category.

Comparisons with census data suggest that our total sample contains more currently married, older and highly educated respondents than are found in the city as a whole. Differences are especially noteworthy for education, where almost two-thirds of the sample (66.2 per cent) have college degrees compared with slightly less than half the census enumerated population over 25 (47.2 per cent).³ Even though a special effort was made to sample people of colour, our sample slightly underrepresents them relative to the city as a whole. The sample was 78.5 per cent White compared with 68.8 per cent according to the census.

Although the sampling design for this study is complex, we have not weighted the cases. Analysis showed that membership in the three different samples had virtually no effect on the overall conclusions of the study. We have substituted sample mean values for specific individual-level variables where

information was missing. This has the virtue of maximising the number of respondents in each geographical area. For the individual-level variables, the percentage of missing cases was less than 3 per cent. Correlations of various individual and contextual variables with our measures of neighbouring when missing values were included or excluded showed little difference in the patterns.

Description of 281 Block Groups

The geographical unit in this analysis is the block group, as defined in the 2000 Census. Most research on demographic variation among neighbourhoods in cities has used census tracts, which typically contain 3000–8000 residents and several score blocks. Census block groups (which were first used in the 1990 census) usually contain, at most, a few hundred residents and a handful of blocks. Census tracts in Seattle typically contain 3–9 block groups, with 568 block groups defined for the city in the 2000 Census. Block groups are most appropriate for this study because the questions we asked individuals on relationships in the neighbourhood referenced the area within a few blocks of their home.

In order to conduct multilevel analysis of the data, we have restricted the analysis to the 3089 White individuals who live in the 281 Seattle block groups that have at least five respondents and show variation on the three individual-level variables used in the multivariate analysis. The minimum of five respondents was chosen because we need at least three per geographical unit so that the effects of the three individual-level variables are not completely determined. Fortunately, the average number of respondents over the 281 units is higher (11), with a standard deviation of 4.5. The sample thus includes about three-fourths of all White respondents in the survey ($n = 4088$), but only about one-half of the block groups. It should be noted, however, that a large number of the block groups have

very few residents and/or are primarily non-White in composition.

Characteristics of block groups are drawn from the 2000 summary statistics reports of the census. Using Table P_7 of the SF3 dataset for Seattle, we measure population heterogeneity by a probability equation

$$+(a/p)^2 + (b/p)^2 + (c/p)^2 + (d/p)^2 \\ +(e/p)^2 + (f/p)^2 + (g/p)^2$$

where, a , b , c , d and so forth, each represents the number of people belonging respectively to seven specific ethnic/racial groups in an area; and p represents the total population of the area (Finke *et al.*, 1996).

In the 2000 census, individuals could define themselves as members of a single racial group or as members of multiple racial groups. Individuals were also allowed to select identification with Hispanic or Latino ethnicity (although this is not a racial category). Table P_7 divides the population into major racial groups, which are then further divided by whether the population is Hispanic or Latino. From this table, we created six categories based on the percentage of individuals who picked only one racial category. These categories with their 2000 percentages in the Seattle population are: non-Hispanic White identification alone (67.8 per cent), Hispanic White (2.2 per cent), African American (8.3 per cent), Asian or Pacific Islander (13.6 per cent), Native American (1.0 per cent), other racial identification alone (2.3 per cent). Individuals of 'other' racial identification often identify themselves as Hispanic or Latino. We have also used those who claim multiple racial identifications (4.8 per cent) as a seventh group in the calculation of the index.

Using this index, high heterogeneity is indicated by a low score and low heterogeneity is indicated by a high score. To make the measure more intuitively interpretable, it is subtracted from 1.0. If all members of

the community were in one group, the index would equal 0, indicating the lowest possible heterogeneity. The greatest possible heterogeneity would occur when all groups in the community have equal proportions in the population (a score of 1.0).

For the analyses, we use Raudenbush and Bryk's (2002) HLM multilevel programme that provides maximum-likelihood estimates of regression coefficients. A notable virtue of this programme is that it recognises that data at the individual and aggregate levels must be treated differently in the statistical procedures. The HLM programme also explicitly considers the geographical clustering when calculating standard errors for the regression coefficients.

Measuring Social Harmony

Responses to three different attitude questions (calm, trust, help) serve as the dependent variables for the measurement of social harmony. Calm is measured by the degree to which respondents indicate that "neighbors who cause trouble or make noise" are a problem. Response categories include: a big problem = 1; a small problem = 2; not a problem = 3. Agreement with the statement "People in this neighborhood can be trusted" measures trust, while agreement with "People around here are willing to help their neighbors" indicates help. Four response categories are recognised for the trust and help indicators (strongly agree = 4; agree = 3; disagree = 2; and strongly disagree = 1). In the multivariate analysis, scores on the three items will be treated as continuous. The three variables are positively intercorrelated among our respondents across the block groups but, in our opinion, not so strongly correlated to validate clearly the use of an index or scale. Over the 281 block groups in the analysis, calm has correlations of 0.30 and 0.20 with trust and help, while trust has a correlation of 0.52 with help.

As far as we know, no one has measured

social harmony in this way. Our concept bears some overlap with Coleman's concept of social capital, which he distinguishes from human capital and physical capital. As he notes,

Just as physical capital and human capital facilitate productive activity, social capital does as well. For example, a group within which there is extensive trustworthiness and extensive trust is able to accomplish much more than a comparable group without that trustworthiness and trust (Coleman, 1988, p. S101).

Drawing from Coleman's concept of social capital, Ross *et al.* (2001, 2002) analyse the relationship of individual and neighbourhood characteristics to three indicators of generalised mistrust of others. Both neighbourhood disadvantage and perceived neighbourhood disorder were positively correlated with individual levels of mistrust, but much of the relationship of neighbourhood disadvantage to mistrust was mediated by individual characteristics, especially socioeconomic status. The researchers did not consider neighbourhood-level indicators of ethnic composition in their analysis, although elsewhere Ross and Mirowsky (1999) find that Blacks are especially likely to live in neighbourhoods of high perceived disorder.

Our concept of harmony also has some conceptual overlap with the concept of collective efficacy used in recent research on Chicago communities. Collective efficacy is defined as "the differential ability of neighborhoods to realize the common values of residents and maintain effective social controls" (Sampson *et al.*, 1997, p. 918). The authors note that "the willingness of local residents to intervene for the common good depends in large part on conditions of mutual trust and solidarity among neighbors" (p. 919). In creating a scale of collective efficacy, Sampson and colleagues combine scores on two scales. One scale of child-centred social control includes items that indicate the perceived

willingness of neighbours to intervene publicly so that children behave in socially acceptable ways. The other scale of 'social cohesion and trust' overlaps to a high degree with our concept of harmony by including agreement to items such as "people around here are willing to help their neighbors" and "people in this neighborhood can be trusted". A correlation of 0.80 between the two scales is reported for Chicago responses that are aggregated to the geographical level.

In an analysis of collective efficacy using the same dataset, Sampson *et al.* (1999) continue to use child-centred social control as an indicator of collective efficacy and they also emphasise the importance of intergenerational closure (social ties between neighbourhood adults and children) and reciprocated exchange (neighbourhood social interaction) as indicators. The measure of 'social cohesion and trust' is no longer used, but the authors report that one item, "people in this neighborhood can be trusted", has correlations at the geographical level between 0.25 and 0.33 with the three sets of indicators that are used in their 1999 study. It is not clear why the correlations of the trust concept changed so dramatically across studies that appear to use the same data and geographical units.

Since the Seattle and Chicago studies asked a number of identical questions, we provide some comparison of patterns for the relationship of harmony to reciprocated exchange and child-centred social control. In the Chicago study, reciprocated exchange is captured by five items, three of which were included in the Seattle study. Each item asks how often the respondent engages in the activities with their neighbours.⁴ The three items in common include "borrowed tools or small food items from your neighbors",⁵ "watched your neighbor's property when they are out of town" and "asked neighbors about personal things such as child rearing or job openings". Child-centred social control is

captured by three items, all of which appear in both surveys. The three items ask how likely it is that neighbours would do something about the following situations: "if a group of neighborhood children were skipping school and hanging out on the street corner", "if some children were spray-painting graffiti on a local building", and "if a child was showing disrespect to an adult".⁶

Table 1 shows that, as anticipated, across the Seattle block groups our three measures of harmony are positively correlated with the indices of reciprocated exchange and child-centred social control, which we created with our available measures. Even though the correlations are positive and significant, they do not imply that our measures of harmony are essentially interchangeable with measures of collective efficacy. The correlations in Seattle are higher with child-centred social control than reciprocated exchange. This might be expected since depending on neighbours to control juvenile behaviour would imply some basic belief in mutual trust among residents. However, patterns of individual

Table 1. Aggregate correlations of harmony variables

	<i>Calm</i>	<i>Trust</i>	<i>Help</i>
Calm	–	0.66***	0.47***
Trust	0.66***	–	0.72***
Help	0.47***	0.72***	–
Exchange	0.26**	0.45***	0.55***
CCS	0.50***	0.69***	0.66***

**statistically significant at the $p < 0.01$ level;

***statistically significant at the $p < 0.001$ level.

Calm: How much of a problem would you say the following is: neighbours who cause trouble or make noise?

Trust: People in this neighbourhood can be trusted.

Help: People around here are willing to help their neighbours.

Exchange: Degree of reciprocated exchange with neighbours.

CCS: Degree of child-centred social control.

exchange among residents need not imply any strong social bonds among large groups of residents.

Individual-level Controls

At the individual level, homeownership and length of residence are included as control variables in the multivariate analysis because they have been repeatedly identified as positive correlates of neighbouring (Greer, 1962; Guest *et al.*, 2006; Kasarda and Janowitz, 1974). Homeownership is measured by a dummy variable indicating whether the respondent lives in an owned (coded 1) or rented (coded 0) dwelling. Length of residence is operationalised as the natural logarithm of the number of years the respondent has lived at the address.

Another potentially important individual-level control is socioeconomic status. While we collected data on respondent income, we use educational attainment as a rudimentary control for individual socioeconomic status. Consistent with other surveys, high proportions of the respondents refused to provide information on income and we found it to be a poorer correlate of neighbouring than educational attainment. Recorded categories of educational attainment were: 8th grade or less, some high school, high school graduate or GED, trade/vocational school after high school, some college, college graduate, and graduate school/professional school. We have assigned categorical values from 1 to 7 over these response categories.

Little research exists on how these individual-level variables relate to social harmony. Yet, one might speculate that homeownership and length of residence reflect economic and social investment in the neighbourhood and, consequently, that residents who own their homes and have lived in them for long periods would have a natural incentive to develop stable, co-operative relationships with fellow residents. Moreover, highly educated individuals are probably more integrated into the 'civic culture' that

emphasises social responsibility, participation and co-operation.

Other individual-level variables such as age, marital status and the presence of children might be considered. However, they add little to the explanation beyond the variables we consider. And given the small numbers of respondents in many of our block groups, we found it necessary to limit the number of individual-level variables. If we did not, the number of variables in some block groups would exceed the number of cases, a problematic situation in multivariate analyses.

Neighborhood-level Controls

We anticipate that neighbourhood-level variables will be more important predictors of social harmony than individual-level variables. The questions about calm, trust and help ask individuals to assess their perceptions for the whole neighbourhood rather than personal experiences. In such a situation, aggregate independent variables should be especially useful for predicting aggregate assessments. Using census data, three key contextual variables are included

1. *Residential stability*: the sum of z-scores for two variables—the percentage of owner- (as opposed to renter-) occupied housing and the percentage of individuals, five years and older, who live in the same house as five years ago. Across the block groups, the two variables are highly correlated (0.81) and are difficult to separate in a multivariate analysis.
2. *Community socioeconomic status (SES)*: the sum of z-scores for three highly inter-correlated variables, the percentage of households with incomes over \$75 000 in the previous year, the percentage of individuals (25 years and over) who have graduated from college and the percentage of employed workers in professional and managerial occupations. The block-group-level intercorrelations among these

variables ranged between 0.56 and 0.87. A similar index was constructed in Chicago neighbourhood research (Sampson *et al.*, 1999).⁷

3. *Area age*: the percentage of housing units built before 1960, according to the 2000 census. The 1960s witnessed unusually great expansion of residential areas in Seattle and the suburbs, and this variable provides a useful measure of old versus new areas.

Findings

Variations in Social Harmony

In Figure 1 we provide easily interpretable information on how levels of harmony change with levels of heterogeneity. Each of the harmony variables is dichotomised so that the most positive categories are compared with other responses. For trust and help, the figure indicates the proportions who strongly agree; for calm, it indicates the proportion who report “no problem”. The heterogeneity variable is divided into seven approximately equal categories. Thus, Figure 1 shows the proportions of *individuals* at various levels of ethnic heterogeneity in their block groups who believe that social harmony is quite high.

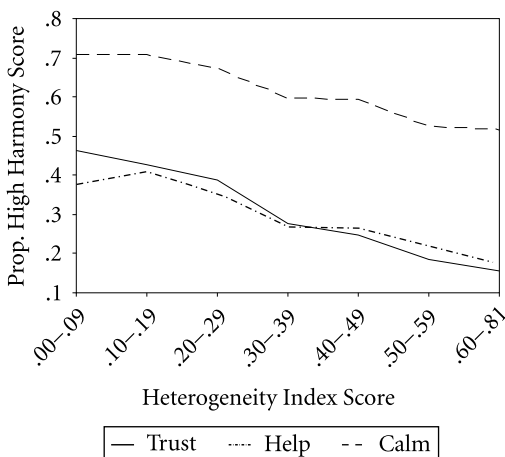


Figure 1. Relationship of heterogeneity to harmony among individuals

Figure 1 indicates that all three measures of harmony decrease in a consistent manner with increasing levels of ethnic heterogeneity. That is, Whites in heterogeneous neighbourhoods are less likely than those in homogeneous neighbourhoods to classify their community as calm and believe that neighbour relationships are characterised by trust and helpfulness. Note that the proportions who “strongly agree” in trust and help are more than twice as large in the most homogeneous block groups compared with the most heterogeneous. Levels of calm drop less precipitously with increasing levels of heterogeneity, but there is continuous change over the levels of heterogeneity. These patterns imply much greater effects of heterogeneity than previous studies using survey research have found.

Nevertheless, we should point out that the levels of social harmony, as reported by residents, are generally high, regardless of heterogeneity levels. Even in the most heterogeneous neighbourhoods, only 12.2 per cent of Whites disagree or disagree strongly that “People in this neighborhood can be trusted” and only 11.5 per cent disagree or disagree strongly that “People around here are willing to help their neighbors”. This means that Whites in the most heterogeneous neighbourhoods, while less positive than those in homogeneous areas, are not truly sceptical about relationships with other residents. Responses to the question on noise from neighbours, coded on a 3-point scale, indicate that residents of the most heterogeneous neighbourhoods score, typically, near the category of it being a “small problem”. Thus, consistent with the patterns for trust and help, levels of concern in the most heterogeneous neighbourhoods are only relatively, not absolutely, low.

The degree of variation in harmony across block groups is indicated in Figure 2, which shows scatterplots, by block group (rather than individuals), for the relationships between heterogeneity and community responses

to the questions on help, trust and calm. The proportions shown indicate the level of agreement with the strongest pro-harmony response on each of the three variables. Thus, a proportion of 0.80 indicates that 80 per cent of the respondents in that block group gave the most positive response on that variable. A relationship between heterogeneity and harmony clearly exists for each variable; as heterogeneity increases, harmony decreases. However, some interesting patterns are evident in Figure 2. First, even among the most heterogeneous communities, there are very few in which no White respondents agree with the highest level of evaluation. And secondly, there is quite a bit of variation in response across the block groups, even within the same levels of heterogeneity. This pattern is quite noteworthy within the homogeneous communities where block groups vary widely in terms of the proportion giving the most positive response. Clearly, neither homogeneity nor heterogeneity alone is a sufficient condition for high or low levels of harmony.⁸

While we limit this study to Whites, the issues of heterogeneity may also be important to other groups in the population. In comparison with Whites, African Americans, Asian and Pacific Islanders, and Hispanics each have similar levels and patterns of harmony at comparable levels of heterogeneity. Results from the subsequent multivariate analysis are generally similar, but are difficult to compare across neighbourhood and individual levels because there are only small numbers of block groups with enough members of specific minority groups to conduct the HLM analyses that we report for Whites.

Individual and Neighbourhood Controls

As we have pointed out, heterogeneity and harmony might not be related once we control for key individual- and community-level factors. Our data show, for instance, that heterogeneous neighbourhoods are more

likely to have renters as opposed to owners, short-term as opposed to long-term residents and poorly as opposed to well-educated residents. Contextual relationships with

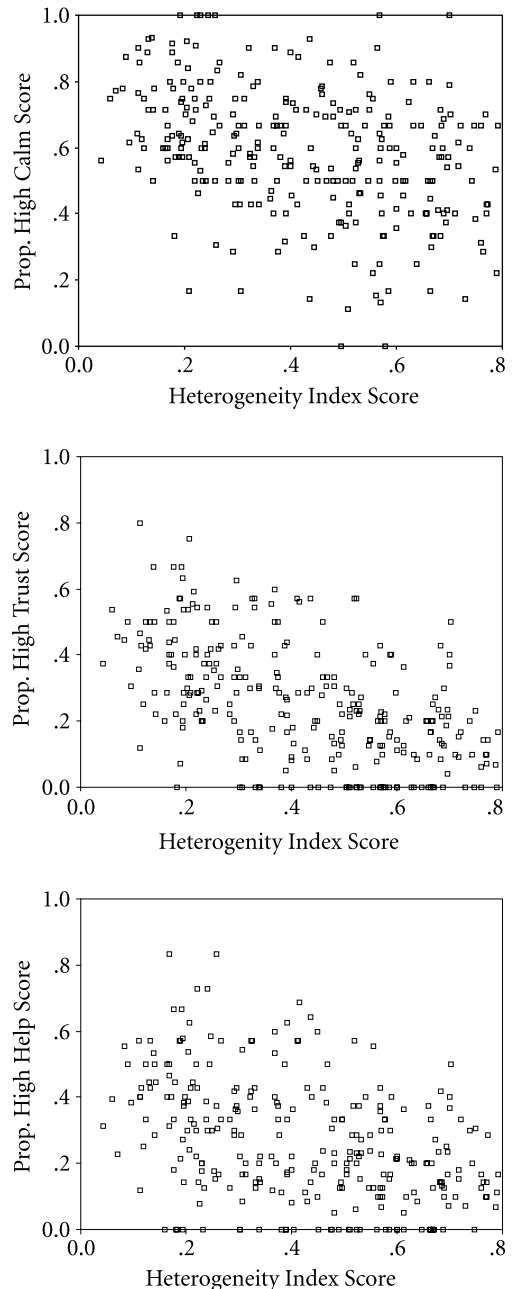


Figure 2. Relationship of heterogeneity to harmony, block groups

heterogeneity are also strong. For instance, across the block groups, the relationship between ethnic heterogeneity and the community SES index has a substantially negative correlation ($r = -0.73$). Heterogeneous neighbourhoods are also characterised, to a much weaker degree, by low degrees of residential stability ($r = -0.19$) and, perhaps surprisingly, more recently built housing ($r = -0.28$).

We first determine whether the contextual heterogeneity effect can be explained by individual characteristics of residents in these neighbourhoods, primarily because most research on neighbourhood effects shows that individual-level variables, rather than contextual-level variables, tend to dominate in explanations of various behaviours (Guest *et al.*, 2006). In a subsequent model, we add the neighbourhood-level predictors to those from the individual level.

Using the HLM programme, we calculate the variance across the sample that is due to individual-level, as opposed to contextual-level, variation. Contrary to previous research on neighbourhood ties (Guest *et al.*, 2006; Lee *et al.*, 1994), only small percentages of the variances among individuals are due to individual-level effects. The percentages are: calm, 34.9 per cent; trust, 30.4 per cent; help, 27.8 per cent. Nevertheless, we find this reasonable because the harmony questions ask individuals to assess general conditions in their neighbourhoods, rather than their personal situation.

Table 2 provides three columns of statistical information for each dependent variable. The first column shows the standardised bivariate regression effect of each independent variable with the dependent variables coded as continuous variables. The second column indicates the standardised partial effects of heterogeneity and the individual-level variables in predicting the various harmony measures. The third column shows the standardised partial effects when all independent variables are included as predictors.

The key issue in this study is whether heterogeneity will affect harmony when the other variables are statistically controlled. Table 2 shows that the relationship between heterogeneity and harmony changes only minimally after controlling for the individual-level variables. On the other hand, the heterogeneity effects do change noticeably when the other contextual variables are included in the equation. By most assessments, the heterogeneity coefficients (in the third column) would generally be considered small in absolute size. Nevertheless, each heterogeneity coefficient is statistically significant by conventional standards. We therefore conclude that the 'true' heterogeneity effects are somewhat smaller than identified in Figure 1 but are nonetheless noteworthy.

Among the 'control' contextual variables, only residential stability has much of a relationship with harmony in the model with all individual and community variables. Heterogeneity and residential stability are roughly equal in strength as predictors of trust and help, but stability is more important than heterogeneity for predicting calm. It thus appears that stability is the most important contextual factor in reducing the effects of heterogeneity. In other words, an important component of the tendency for heterogeneous neighbourhoods to have less harmony is their low levels of residential stability. This finding generally supports the traditional Chicago School perspective that has emphasised geographical mobility as an important feature of ethnically mixed areas. Both SES and neighbourhood age have small absolute effects on harmony, and only one is statistically significant at the 0.05 level. Thus, even though community SES is especially low in ethnically diverse areas, it has little direct impact on feelings of harmony.⁹

HLM also provides information to calculate the percentage of the 'contextual' variance in the sample that is explained by community-level variables. The effects of heterogeneity are

Table 2. Relationship of contextual variables to harmony

	Calm			Trust			Help		
	B.1	B.2	B.3	B.1	B.2	B.3	B.1	B.2	B.3
Heterogeneity	-0.107***	-0.109***	-0.056*	-0.151***	-0.142***	-0.098***	-0.110***	-0.107***	-0.067***
Homeowner	0.084***	0.037**	0.016	0.207***	0.092***	0.072***	0.185***	0.082***	0.067***
Years of residence	0.045*	-0.010	-0.015	0.141***	0.030**	0.024**	0.109***	0.015	0.011
Education	0.005	-0.017	-0.019	0.056**	0.009	0.007	0.045*	0.004	0.002
Residential stability	0.123***		0.087***	0.146***		0.073***	0.112***		0.054***
Community SES	0.114***		0.046*	0.149***		0.034	0.116***		0.032
Area age	0.087***		0.016	0.115***		0.026	0.093***		0.024

*statistically significant at the p <0.05 level; **statistically significant at the p <0.01 level; and ***statistically significant at the p <0.001 level.
Calm: How much of a problem would you say the following is: neighbours who cause trouble or make noise? *Trust*: People in this neighbourhood can be trusted. *Help*: People around here are willing to help their neighbours.
 B.1 = standardised bivariate regression coefficient. B.2 = partial standardised regression coefficient, individual-level controls. B.3 = partial standardised regression coefficient, individual and contextual controls.

clearly evident and the contextual variables in our model are powerful predictors of the contextual variance. When heterogeneity alone is included as a predictor, it explains 34.2 per cent (calm), 49.5 per cent (trust) and 41.6 per cent (help) of the contextual variance. When all four contextual variables are included, the percentages become impressively high: calm, 67.8 per cent; trust, 87.2 per cent; help, 82.1 per cent. Thus, while heterogeneity is an important predictor of harmony, the other contextual variables, especially residential stability, help to explain the bulk of the contextual-level variance. Just as importantly, the contextual variables in our analysis provide a good fit for explaining variation in harmony across block groups.

The effects of heterogeneity on harmony may be assessed by comparing the unstandardised effects of heterogeneity with and without the controls for the individual- and contextual-level variables. Let us compare the predicted decreased levels of Harmony when a neighbourhood has a heterogeneity score of 0.80 (among our highest values) compared with a minimum value of 0.00. Consistent with the pattern in Figure 1, when no other variables are controlled, the high-heterogeneity neighbourhood would have the following lower scores on the three dependent variables (compared with the completely homogeneous neighbourhood): calm, 0.29; trust, 0.61; help, 0.46. When the other variables are controlled, the predicted differences are calm, 0.23; trust, 0.40; help, 0.28.

While these differences are more than trivial, they are not especially impressive. For example, the score on help (based on a 4-point scale) would be only 0.28 point units lower in a neighbourhood with high heterogeneity compared with one with no heterogeneity, when the effects of the other predictors are controlled. This means that a neighbourhood with a heterogeneity score of 0.80 (a very high value) would have an average score on the

help variable that is only about one-fourth of a category higher (on the 4-point scale) than a neighbourhood with the minimum heterogeneity score of 0.00. Nevertheless, the effects of the contextual variables on harmony may be somewhat difficult to assess for a simple statistical reason. At the bivariate level, the contextual variables tend to have similar correlations with the harmony variables and are intercorrelated to some degree. In such a situation, it is often difficult statistically to select the 'best' predictor (Gordon, 1968). In sum, heterogeneity is only associated with a low *relative* degree of harmony among Whites; the *absolute* levels of harmony in heterogeneous neighbourhoods indicate that, even in ethnically diverse neighbourhoods, Whites feel fairly positive about social relations.

Composition and Heterogeneity Effects

By using an overall index score, one assumes that the specific ethnic composition of the neighbourhood does not matter to residents; rather, it is the overall mix. To illustrate this point, assume that neighbourhoods A and B have the same heterogeneity score, but the composition of specific groups is different. Neighbourhood A has the proportion of 0.20 each for groups *w*, *x*, and *y* while the proportion is 0.40 for group *z*; neighbourhood B has the proportion of 0.20 each for groups *x*, *y* and *z*, while the proportion is 0.40 for group *w*. The index is 0.28 for both neighbourhoods. However, what if Whites respond primarily to the differential importance of groups *w* and *z* across the two neighbourhoods? For instance, while Whites may exhibit greater racial prejudice towards African Americans than Asian Americans (Emerson *et al.*, 2001), they may have more difficulty in establishing social relationships with their Asian neighbours if the latter are recent immigrants with limited English language ability.

One way of dealing with this problem in the usual regression framework is to enter into

the equations separate predictive variables for the proportion in each ethnic group. If the regression coefficients were noticeably different across groups w , x and y , then one could conclude that the presence of specific ethnic groups affects social behaviour. Unfortunately, it is impossible empirically to test simultaneously for the importance of both overall heterogeneity and the role of specific ethnic composition because the measures are logically related to each other. Given potential multicollinearity, the two sets of measures cannot be included in the same regression equation.

However, we can assess the empirical patterns in the data when both conceptualisations (what might be called the true heterogeneity and the compositional models) are entertained. Thus, if the regression coefficients for specific ethnic proportions have a similar effect on social behaviour, then that would seem to suggest that the numerical strength or importance of specific ethnic groups is not especially relevant. In this situation, a case

could be made that the use of the overall heterogeneity index is a reasonable way of measuring differences across the ethnic groups. If the regression coefficients for specific ethnic proportions are quite different, the pattern would suggest that the use of the heterogeneity index is hiding different group-specific patterns.

To examine this issue, we specify two HLM models. In model 1 (true heterogeneity model), the only predictor of the three dependent variables is the block heterogeneity index in standardised form. In model 2 (compositional model), there are three predictors: the proportion of persons who are Asian and/or Pacific Islander, the proportion who are Black and the proportion who are Hispanic (the three major 'non-White' groups in Seattle). The regression results from one-level fixed effects models are presented in Table 3. We also present a measure of model fit that is used in HLM, the chi-squared statistic. The higher the chi-squared value, the better the model fit.

Table 3. Relationships of ethnic variables to harmony

	<i>Calm</i>		<i>Trust</i>		<i>Help</i>	
	<i>Pearson r</i>	<i>B</i>	<i>Pearson r</i>	<i>B</i>	<i>Pearson r</i>	<i>B</i>
<i>I. Non-White percentages</i>						
Asian	-0.064***	-0.012	-0.127***	-0.048*	-0.123***	-0.049***
Black	-0.133***	-0.067***	-0.153***	-0.063***	-0.114***	-0.043*
Hispanic	-0.131***	-0.060***	-0.172***	-0.075***	-0.134***	-0.054***
Non-White R^2		0.028***		0.047***		0.032***
Chi-squared (3 df)		29.1***		52.3***		36.5***
<i>II. Heterogeneity</i>						
Heterogeneity R^2		0.030***		0.064***		0.039***
Chi-squared (1 df)		46.6***		97.2***		63.3***

*statistically significant at the $p < 0.05$ level; **statistically significant at the $p < 0.01$ level; and ***statistically significant at the $p < 0.001$ level.

Calm: How much of a problem would you say the following is: neighbours who cause trouble or make noise? *Trust*: People in this neighbourhood can be trusted. *Help*: People around here are willing to help their neighbours.

B = Standardised betas in fixed effects models. Non-White R^2 = Variance explained in OLS model with non-White percentages. Heterogeneity R^2 = Variance explained in OLS model with only heterogeneity variable.

For each dependent variable, the true heterogeneity model has a higher chi-squared score in comparison with the compositional model, suggesting that it is equally useful, even though measured by only one parameter rather than three. Another way of assessing the two models is to compare the pattern of coefficients of the variables that measure the specific ethnic composition. If the signs and strengths of the coefficients are similar, then one might conclude that there is a general pattern of reaction by Whites to all other groups. If the signs and strengths are different, then stronger evidence for the importance of considering specific ethnicities might be warranted. Across all three dependent variables, the absolute sizes of the coefficients for the specific ethnic groups have the same signs and are small, by most standards (all are below 0.08 in size). Furthermore, none exceeds the standardised value of the heterogeneity coefficient for any dependent variable. It thus appears, generally, that knowing the specific non-White ethnicity of the block group provides little specific information for understanding feelings of harmony. However, the strongest case for specific compositional effects would be based on the findings for Asians. In particular, the effects of their percentages on calm are slightly lower than those for Blacks and Hispanics. It is possible that this reflects the stereotype commonly held among Whites that Asians are a ‘model minority’ who are quiet, conforming and diligent.

Leaving Heterogeneous Neighbourhoods

Do lower levels of harmony in heterogeneous neighbourhoods affect the perceived commitment of Whites to their Seattle communities? This issue is clearly related to the extensive, yet somewhat inconclusive, research that debates whether Whites are likely to flee neighbourhoods where significant proportions of Blacks live (Crowder, 2000).

Figure 3 shows the relationship, for individuals, between block group heterogeneity and survey responses to two questions on leaving the neighbourhood. One question determined how much the respondent would “miss the neighborhood if you ever had to move”, with responses ranging over four categories from “very likely” to “very unlikely”. The other question asks “how much are you thinking about moving from your present home?”, with choices being “a lot, some, a little, and not at all”. To maximise clarity in interpreting the figure, we have divided the respondents into those who report that they would be “very likely” to miss the area versus the other responses and those who are thinking about moving at least “a little” as opposed to “not at all”.

Figure 3 indicates that White residents in heterogeneous neighbourhoods are somewhat less likely than those in homogeneous neighbourhoods to report they would be “very likely” to miss the area. The patterns in the figure are somewhat irregular, but respondents in the most diverse neighbourhoods are about 20 percentage points less likely than those in the most homogeneous neighbourhoods to report that they would be “very

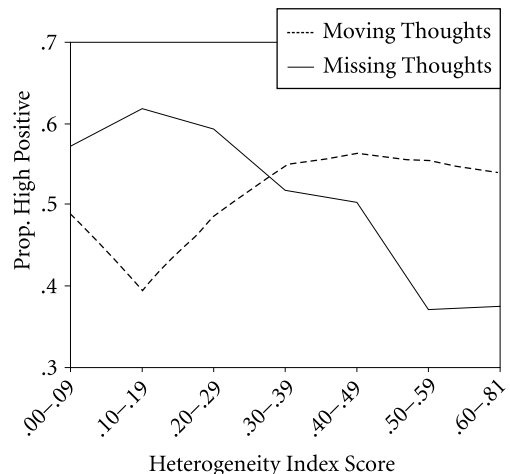


Figure 3. Heterogeneity and thoughts about moving among individuals

likely” to miss the area. Despite this, highly heterogeneous neighbourhoods are still attractive in an absolute sense. Even in the most diverse neighbourhoods, some 72.4 per cent of Whites report that they would be “likely” or “very likely” to miss the neighbourhood if they had to move. The homogeneous neighbourhoods primarily differ simply because residents are more “very likely” to miss them if they move.

In Figure 3, the relationship of heterogeneity to thoughts about moving is much more erratic than feelings of sentimental loss. Respondents in the three most homogeneous neighbourhoods exhibit the fewest thoughts about moving, but the differences by levels of heterogeneity are not large. To some extent, this might be expected since general neighbourhood conditions are typically found to be of weak importance in stimulating movement. Out-mobility, according to the literature, typically reflects primarily housing needs and changing family composition (Lee *et al.*, 1994).

A plausible hypothesis is that heterogeneous neighbourhoods generate less long-term commitment than homogeneous ones because they have lower levels of social harmony. To assess this, we need first to calculate a statistical estimate of how heterogeneity is related to thoughts about missing and moving. We then need to determine whether control for the three harmony variables reduces the effects of heterogeneity. We also need to consider other intervening factors beyond the harmony variables. The relationship between heterogeneity, on the one hand, and missing the neighbourhood and mobility propensity, on the other hand, may also be explained by the individual-level and contextual variables previously considered. For instance, homeowners, who are found in low proportions in diverse neighbourhoods, may miss the neighbourhood more and think less about moving than renters. Community SES may also be positively related to missing

the neighbourhood and negatively related to thoughts about moving.

To sort out these relationships, in Table 4 we present four models for each dependent variable—perceived missing of the neighbourhood and mobility thoughts. For the regressions, the dependent variables are scored (4, 3, 2, 1); the highest category of missing the neighbourhood is scored 4 as is the highest category of thoughts about moving.

The simplest model in Table 4 is one in which only heterogeneity predicts the dependent variables. A second model includes the individual-level variables—homeownership, length of residence and educational attainment. A third model also includes the aggregate-level variables. (The first three models are similar in conceptualisation to those analysed in Table 2; only the dependent variables have changed.) The major statistical elaboration in Table 4 is the fourth model, which adds the three social harmony variables (measured at the individual level).

Consistent with Figure 3, the model that includes only heterogeneity as an independent variable has statistically significant effects on both missing propensity and mobility thoughts, but (consistent with the graphical information) the standardised coefficient is somewhat larger for predicting missing propensity (-0.23) than thoughts about moving (0.10).¹⁰ When the individual-level demographic variables are included (column B.1), the effect of heterogeneity is essentially unchanged (for moving thoughts) or reduced very slightly (for missing propensity). Of particular note is the strong effect of respondents’ homeownership on mobility thoughts, consistent with previous studies on residential mobility (Lee *et al.*, 1994), even though controlling for homeownership has little influence on the relationship between heterogeneity and the two dependent variables.

Column B.2 in Table 4 shows a pattern that is consistent with previous research on the relationship between community

Table 4. Relationship of contextual variables to leaving

	Move			Miss				
	<i>r</i>	B.1	B.2	B.3	<i>r</i>	B.1	B.2	B.3
Heterogeneity	0.097***	0.103***	0.073*	0.038	-0.228***	-0.191***	-0.079**	-0.034**
Homeowner	-0.288***	-0.320***	-0.309***	-0.289***	0.094***	0.039*	0.026	-0.001
Years of residence	-0.143***	-0.013	-0.010	-0.004	0.098***	0.055*	0.051**	0.043
Education	0.018	0.059**	0.062**	0.061*	0.079***	0.042*	0.033	0.032
Residential stability	-0.146***		-0.027	-0.001	0.122***		-0.009	-0.039*
Community SES	-0.107***		-0.031*	-0.014	0.260***		0.127***	0.101***
Area age	-0.096***		-0.011	-0.005	0.186***		0.074**	0.065*
Calm	-0.147***			-0.148***	0.181***			0.103***
Trust	-0.190***			-0.105**	0.279***			0.162***
Help	-0.196***			-0.196***	0.274***			0.241***

*statistically significant at the $p < 0.05$ level; **statistically significant at the $p < 0.01$ level; and ***statistically significant at the $p < 0.001$ level.
r = bivariate standardised regression coefficient.

B.1 = partial standardised regression coefficient, individual-level controls. B.2 = partial standardised regression coefficient, individual, context controls. B.3 = partial standardised regression coefficient, all controls.

Move: How much are you thinking about moving from your present home? Miss: If you ever had to move, how likely is it that you would miss this neighbourhood?

characteristics and thoughts about moving (Lee *et al.*, 1994). Namely, conventional contextual control variables—community SES, residential stability and area age—have little influence on respondents' thoughts.

However, a different pattern is evident in considering the relationship between heterogeneity and sentimental feelings when contextual variables are controlled. In this case (column B.2), the heterogeneity coefficient drops quite noticeably in size, although it is still significant. Much of the decline is apparently due to community SES and age. Affluent and older neighbourhoods are characterised by higher levels of sentiment; they also tend to be relatively homogeneous. When these characteristics are controlled, much of the heterogeneity effect turns out to be spurious and the heterogeneity coefficient becomes quite similar in predicting both sentimental feelings and thoughts about moving.

Our major interest in Table 4 is whether inclusion of the three harmony variables impacts the relationship of heterogeneity to sentiment and moving thoughts. When the three perceptual variables are introduced in the last step (column B.3), heterogeneity is no longer significant for either measure. Apparently, the lack of social harmony in heterogeneous neighbourhoods is a key factor in understanding the tendency of residents in these neighbourhoods to have low sentiment and high thoughts about moving. Among the three harmony measures, the propensity of neighbours to help each other is the major predictor of both sentiment and thoughts about moving.

Discussion

Even though Seattle has a reputation as being an ethnically liberal city, homogeneous neighbourhoods are viewed by Whites as more harmonious places to live than ethnically mixed neighbourhoods. In mixed

neighbourhoods, Whites tend to report more noise and trouble and less trusting and helpful relationships. Statistically controlling for other factors reduces but does not eliminate these relationships. In addition, heterogeneity is as useful or better a correlate of harmony than various other contextual characteristics of neighbourhoods such as community SES, residential stability and area age that are frequently considered in urban sociological research.

A legitimate concern is whether the heterogeneity effects are confounded with perceptions about specific minorities that live in these types of neighbourhoods. However, in fact, according to our findings, Whites do not seem very sensitive to the issue of whether their ethnic neighbours are disproportionately African American, Hispanic or Asian, especially in regard to the degree of trust and helpfulness in the neighbourhood. Such results suggest that Whites are more concerned about non-Whites 'just being different' from them rather than the content of specific ethnic lifestyles.

While these conclusions may lead to pessimism about the benefits of attaining neighbourhood ethnic integration in US cities, there are also more positive conclusions to be drawn from this study. First, while heterogeneous neighbourhoods are perceived as less harmonious than homogeneous neighbourhoods, Whites in heterogeneous areas still "agree" (just not strongly) that interpersonal relationships are trusting, helpful and co-operative. In other words, heterogeneous neighbourhoods are typically perceived as satisfactory places in which to live. Secondly, the relationship of heterogeneity to harmony is explained away to some degree by statistical controls for other community characteristics, especially a low degree of residential stability. Thirdly, our data show that there are substantial variations in the perceived degree of harmonious relationships among heterogeneous and homogeneous

neighbourhoods. Living in a diverse neighbourhood is not a necessary condition for having a chaotic or disorderly community. Clearly, it would be useful to know more about the basis of harmonious relationships in the communities we have studied, perhaps using more qualitative research methods to determine how members of different ethnic groups negotiate accommodating relationships with each other in specific settings.

How generalisable are these results from Seattle? This is difficult to say because there are so few other studies that provide an adequate assessment of how racial or ethnic heterogeneity affects harmony across a large number of neighbourhoods. Undoubtedly, the methodological virtue of this study, the fact that Seattle actually has a substantial number of heterogeneous neighbourhoods, suggests caution in generalising to the great majority of American metropolitan areas where racial intolerance leads to high segregation of Whites from people of colour, especially African Americans. Yet, the several different ethnic groups in Seattle are basically similar to other Americans in background and culture. The fact that heterogeneity does not have severe negative consequences on neighbourhood life should provide some encouragement to those who believe that successful neighbourhood integration is a reasonable goal for most American metropolitan areas.

The future of ethnically mixed neighbourhoods will depend, of course, on the willingness of individuals to tolerate living in them. Our results in Seattle provide a mixed message on this issue. White residents of heterogeneous neighbourhoods are clearly less imbued with the idea that they would greatly miss their neighbourhood if they moved and, to a lesser extent, are slightly above average in thinking about moving. In addition, levels of concern among Whites about community harmony in heterogeneous neighbourhoods help to explain their disproportionately low levels

of missing the neighbourhood and positive thoughts about moving. Yet, at the same time, even in heterogeneous neighbourhoods, Whites report positive sentimental feelings and do not report very serious thoughts about moving. Our findings about the effects of heterogeneity on leaving communities are thus relative, as was true in explaining social harmony itself.

Should the encouragement of ethnically heterogeneous neighbourhoods be an important goal for American society? The findings of this study indicate that heterogeneity has some costs in terms of White perceptions; they also suggest that the spatial integration of US metropolitan areas may discourage, in the short run, a 'sense of community'. However, in our opinion, the costs do not seem especially great. Furthermore, integration in the long run may lead to more social integration among groups and more positive feelings towards unlike people. Heterogeneity's alternative, a spatially segregated metropolis, is all too common in many major US metropolitan areas and provides little hope for the development of an inclusive society. The segregation literature has identified the many costs and consequences of segregation in America including that minorities, and Blacks in particular, must live in poorer, more dilapidated areas characterised by higher rates of poverty, dependency, crime and mortality (Massey *et al.*, 1987; Squires and Kubrin, 2006, ch. 1; see also Charles, 2003, pp. 197–199 for a review). We would opt for integration since the potential benefits are so great and the costs relatively few.

Notes

1. In a review of over 100 studies of gentrification (which often involves different ethnic groups), Atkinson (2002) reports that less than one-fourth discuss the 'conflict' that is generated. He argues that

conflict has manifested itself through popular protest, aggressive campaigns to

'mug a yuppie' (London and San Francisco), and more generalised resentment at the pricing out and changing characteristics of gentrified neighbourhoods (Atkinson, 2002, p. 8).

- However, he provides no specific references.
2. It might be useful in the empirical analysis to distinguish areas by the nature of recent ethnic change. However, block groups (the geographical unit in this study) are not easily comparable over censuses. As in most major American cities, the rankings of census tracts (geographically larger units) on measures such as ethnic composition and socioeconomic status have remained similar, but not constant, across recent censuses. Changes in the relative characteristics of tracts between 1990 and 2000 tended, by almost any standard, to be small rather than dramatically large. One noteworthy longitudinal pattern among Seattle census tracts was the weak relationship between change in socioeconomic status and change in ethnic composition.
 3. Seattle typically scores among the top 10 US cities of 50 000 or more in educational attainment and affluence.
 4. In Chicago, this is measured by a 4–category scale: often, sometimes, rarely and never. In Seattle, the 'rarely' category was dropped.
 5. This question is slightly different between surveys. The Chicago version asks about "favors" more generally, including "watching each other's children, helping with shopping, lending garden or house tools, and other small acts of kindness".
 6. In Chicago, these are 5–category Likert scales asking how likely a hypothetical situation is. In Seattle, the middle category "neither likely nor unlikely" is dropped to create a 4–category Likert scale.
 7. We also calculated a deprivation index but do not include it in the analysis. The index was calculated as the sum of z-scores for three highly intercorrelated variables—the percentage of the population below the poverty level, the percentage of the population on public welfare and the percentage of households that are female-headed. Not surprisingly, community SES and deprivation are highly negatively correlated, but are not

collinear. However, they need to be analysed carefully in relationship to each other because there are virtually no block groups of high status that also have even moderate levels of deprivation.

8. Since the sample size per block group is typically small, some of the variation may be due to reliability problems. However, some of the differences in harmony within the same general level of the heterogeneity index are quite pronounced, probably reflecting more than simple sampling variation.
9. A plausible hypothesis is that the heterogeneity effects are related to the differences in socioeconomic status between Whites and other residents. Using 2000 census data for block groups, we determined the separate percentages of Whites and other residents, 25 years and over, in each block group that had graduated from college. However, various measures of the differences in status correlated poorly with the three measures of harmony; none was significant.
10. While these models are run over the same 281 block groups as in Table 3, complete HLM statistics could be calculated only on a subset of 215. Inclusion of the three additional individual-level variables (measuring harmony) means that more respondents per block unit are needed to create individual-level variance on all variables within each block group. Our models might include additional independent variables, but we believe this analysis includes most of the major intervening variables that are probably related to both heterogeneity and the two dependent variables.

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