Neighborhood Context and Neighboring Ties

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This article analyzes whether neighborhood context or environment in Seattle influences dimensions of social ties among neighbors, independent of the individual attributes of residents such as home ownership and socio-economic status. Three dimensions of neighbor ties are examined: interaction, organizing collectively, and knowing about neighbors. A number of environmental attributes are considered, including the age of the housing, residential stability, levels of affluence, the presence of blacks and foreign born, the concentration of commercial areas (heterogeneous land use), and the degree of upkeep in the area. While many are correlated with neighbor ties, few have a strong relationship with neighbor ties when individual attributes are controlled statistically. We find, in addition, that the importance of context varies with the type of neighbor tie. We discuss the implications of these findings for formulating a contextual theory of neighborhood life.

INTRODUCTION

Theories of life in the metropolis are often based on the idea that the social environment influences individual behavior in local communities. This perspective is especially evident in the theorizing during the first half of the 20th century by Chicago School sociologists such as Robert Park (1929) who argued that parts of the city developed distinctive subcultures as a consequence of their historical development and overall patterns of population mobility. To sociologists such as Park, community life represented more than the simple sum of individual social characteristics.

In contrast, other urban sociologists such as Gans (1962b, 1963) have emphasized the minimal influence of communities on the lives of residents. Rather, community life is generally believed to be the product of individual characteristics such as social class or child-rearing that encourage various forms of social participation. The way of life in any community is fundamentally the sum of the individual characteristics.

A moderately large literature reports on the relationship of individual characteristics of community residents such as their length of residence and home ownership to neighbor ties (Campbell and Lee, 1992; Gerson, Stueve, and Fischer, 1977; Kasarda and Janowitz, 1974),[1] but less survey-based research investigates the role of collective properties of

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communities above and beyond the individual attributes of the residents. No doubt, contextual characteristics of communities are correlated with neighbor ties, but the central issue is whether such ties simply reflect the characteristics of individuals who live in these types of neighborhoods.

This study uses data from the 1990 Seattle Criminal Victimization Study (SCVS) (Miethe and Meier, 1994) to analyze the role of contextual characteristics in explaining individual-level variation in neighbor ties across 161 block groups. Census-reported characteristics of block groups such as affluence and housing age will be related to survey responses about relationships with neighbors. The central question is whether contextual characteristics shape neighbor ties beyond the influence of individual characteristics of the respondents. The data will be analyzed using a multilevel methodological framework.

CLASSICAL THEORIES: IMPLICATIONS FOR MULTILEVEL MODELS

In recent years, a number of studies have focused on the question of whether the development of rapid transportation such as the motor vehicle and indirect electronic communication have weakened, to a high degree, the social networks in areas around individual homes (Wellman, 2001; Wellman and Leighton, 1979). Some decline in the strength of neighborhood social networks has occurred over the past 30 years, but national surveys show that significant proportions of the population still interact frequently with their neighbors (Guest and Wierzbicki, 1999). Neighborhoods are not all-absorbing social communities, but they do maintain some importance for social networks.

The neighborhood literature specifies many factors that might form the basis of a contextual theory of neighboring. Unfortunately, in the absence of many persuasive studies, researchers have few guidelines for ascertaining which are most important. We review three theoretical perspectives that suggest specific neighborhood characteristics as useful for understanding social ties: (1) the Chicago School view that focuses on the development of neighbor ties as a natural outgrowth of community stability and development; (2) Greer's elaboration of the community of limited liability perspective, focusing on rational investment in community as a basis of neighbor ties; and (3) Gans' view of community life within the metropolis as largely a reflection of overall social class differences in American life.

THE CHICAGO SCHOOL PERSPECTIVE

A central theme of the Chicago School sociologists was that living in certain types of communities has an impact on localized behavior. As Park notes (1925, p. 6), "The past imposes itself upon the present, and the life of every locality moves on with a certain momentum of its own, more or less independent of the larger circle of life and interests about it." Some Chicago School theorists such as Wirth (1938) believed that the great size, density, and heterogeneity of cities overall led to impersonality and a high degree of anomie across communities. But figures such as Park (1925) saw the metropolis as highly differentiated spatially, with some areas having strong social networks and others being characterized by social estrangement. Unfortunately, by the standards of survey research, Park often defined key variables in such broad terms that they were difficult to operationalize (Guest, 1984).

Nevertheless, Park and his Chicago School colleagues viewed neighborhood life in some parts of the metropolis as a kind of primordial re-creation of village life in rural areas. Allegedly, these areas began with few ties, but then developed them gradually as they matured (McKenzie, 1925, pp. 63–79). In other words, as communities aged, the web of social relationships became dense. This model, according to Chicago School thinking, was viable as long as the community had a relatively homogeneous population that was residentially stable. At some point, however, community ties would begin to disintegrate as the area was invaded by other population groups, business, and industry. As population mobility increased, the bonds of neighbors would be further reduced.

From Park's perspective, stability of residence (individual or collective) was a key predictor of neighbor ties (Kasarda and Janowitz, 1974; Park, 1926). Yet, Park also recognized other community-level factors as important because characteristics often associated with stability such as community age, population homogeneity, and a highly residential environment worked in tandem to produce communities with strong social networks.

A key concept of the Chicago School was "social disorganization," viewed as a condition of few social ties, high community anomie, little empathy toward others, and weak social control (Kubrin and Weitzer, 2003). From this perspective, a lack of neighbor ties might be considered an indicator of the concept of social disorganization, but it could also be conceptualized as a consequence of more general processes producing social disorganization (Park, 1936; Shaw and McKay, 1969). Importantly, the Chicago sociologists tied social disorganization back into their model of neighborhoods, because it was especially found in transient areas of mixed residential and commercial uses, often near the center of the metropolis (Burgess, 1925, pp. 150–151).

The classical Chicago sociologists such as Park would undoubtedly agree with the idea that individual attributes such as length of residence influence social ties among neighbors. But the key emphasis falls on the importance of collective properties such as the overall community stability of residence, the age or period of development of housing in the community, the mixture of commercial and residential land uses, and the degree of social disorganization.

GREER'S COMMUNITY OF LIMITED LIABILITY

In contrast to Park's emphasis on the natural or evolutionary nature of neighborhood life, Greer's (1962, 1972) portrayal of the community of limited liability represented a more rationalistic view of why neighbors develop social ties. Greer recognized that in the post-World War II period developments in rapid transportation and indirect communication freed many individuals from a dependence on local communities. As "little worlds," neighborhoods could make few direct claims on their residents.

While some (Webber, 1963) have described post-World War II neighborhoods as "communities without propinquity," Greer analyzed neighborhood life as a consequence of the rational investment in community. From this perspective, neighbor ties develop as a function of the perpetual need to protect one's investment in a neighborhood. For example, families in the child-rearing stage develop strong neighbor ties because the neighborhood is an important site for socializing the young. In addition, homeowners build strong ties to protect a major form of their wealth. Knowing and interacting with neighbors is a rational means of protecting one's investment in home and/or children.

While Greer recognized that neighbor ties are a function of individual household characteristics such as child-rearing and home ownership, he also saw community life as reflecting the collective properties of such characteristics. Neighborhoods with high collective investment would also have unusually strong social networks, even stronger than predicted by the individual characteristics of residents (Greer, 1972, pp. 98, 125–136). In this case, the contextual influence of community seems to occur more as a consequence of the collective recognition of mutual interests within the area than by any historical, evolutionary process. As an example, areas with high proportions of homeowners might stimulate social interaction among renters who would normally be detached from localized life. Renters would be pulled by others (predominantly homeowners) into the active social life.

Greer's perspective thus suggests that individual investment statuses such as home ownership and child-rearing should be the major correlates of social interaction among neighbors. But one might also anticipate that aggregate measures of these investments would be important.

GANS' SOCIAL CLASS PERSPECTIVE

Gans (1968, pp. 132–148) also has contributed to the study of local area life by emphasizing that social ties are primarily a function of a national system in which Americans are organized in broad social class groupings, such as the middle class and the working class. To some extent, class behavior reflects differences in educational attainment that, in turn, indicates differences in socialization and life experiences. Gans argues that middle class individuals, compared to working class individuals, participate disproportionately in voluntary associations, are oriented toward civic participation, and have an interest in high as opposed to low culture. Middle class individuals feel especially competent to form formal voluntary associations, while working class people feel much more comfortable in unstructured, informal relationships with kin and small peer groups. Communities, then, are defined by summing the proportions of residents with different class configurations.

This perspective has been emphasized by Gans (1962a, 1967) in well-known studies of working class communities such as the West End of Boston and in middle class communities such as Levittown, a suburb of Philadelphia. Gans (1962a) portrays the West Enders as largely indifferent to formal organizations due to their cynicism about the efficacy of such organizations and to their lack of social skills in highly structured situations. In contrast, the Levittowners viewed voluntary associations as effective means of representing their interests and were comfortable with the organizational structure. While Levittowners interacted informally, many of their contacts with friends and kin occurred outside the immediate residential environment (Gans, 1967).

Gans (1968, p. 23) explicitly states that context is relatively unimportant in understanding neighborhood life. He notes that "... the neighborhood plays a minor role in people's lives and in their predispositions ..." Accordingly, middle and working class community life is primarily a product of adding together the specific ways of life of various social class groups. Community affluence itself will have few consequences for behavior. In summary, Gans argues that variations in social ties among neighbors should be quite strongly related to individual-level differences in social class indicators such as educational attainment and income levels.[2]

While Gans does not necessarily equate working class life with poverty, other sociologists (Rainwater, 1970; Wilson, 1987) have described another type of population (sometimes called the "underclass") that is composed of the economically deprived, often disproportionately people of color. These sociologists argue that sustained poverty breeds resentment and alienation from conventional social structures; chronically poor individuals may share the social and economic goals of the larger society but lack the means to attain them. As a consequence, their lives may be so disrupted and alienated that they are unable to form strong conventional bonds with others (Liebow, 1967).

Large-scale, low-income public housing projects are often described as the classic embodiment of this type of community. However, Wilson (1987) argues that this way of life increasingly has characterized a wide variety of low-income black areas in cities where the growing black middle class has fled. A distinctive aspect of Wilson's interpretation, as that of other sociologists such as Rainwater (1970), is that the life of poor black neighborhoods is NOT simply a product of residents' individual attributes. Rather, the unusual spatial concentration of poor people has a magnifying effect on their problems, resulting in even more alienation and isolation.

In summary, each of the three theoretical perspectives emphasizes different individual- and aggregate-level variables that should influence ties to neighbors, but together they raise two major questions about the importance of contextual effects in understanding neighbor ties: First, are neighbor ties in parts of the metropolis simply a reflection of the individual statuses of the residents, or do they also reflect aggregated characteristics of the neighborhood environment? Second, if contextual effects matter, what are the crucial community characteristics? A variety of possibilities exist—the age of area, the stability of the population, the presence of nonresidential land uses, the existence of social disorganization, the investment in community, the degree of affluence and/or the degree of economic deprivation.

THE ROLE OF IMMIGRANT STATUS

A study of neighbor ties should consider the influence of the large-scale flow of immigrants since the late 1960s to specific districts of American cities. An extensive literature relates the presence of immigrant concentrations to the strength of neighbor ties, but hypotheses are not easily subsumed under the three theoretical perspectives just discussed.

For Park and other Chicago School sociologists in the pre-World War II period, some of the strongest neighborhood social networks existed in areas where immigrants such as Southern and Eastern Europeans were concentrated (Park, 1925, 1967, pp. 133–144). As the groups initially arrived in the United States during the late 1800s and early 1900s, they were believed to have only minimal common interests and social ties. However, with time in the United States, groups such as the Russians, Poles, and Italians allegedly developed complex social ties in their communities. These ties were enhanced by the economic and social discrimination the groups faced, encouraging them to turn inward within their communities.

Drawing inspiration from the Chicago School view of established immigrant communities, some sociologists have emphasized ethnic communities as "little worlds" where residents find personal comfort through developing ties with like-minded and culturally similar individuals (Breton, 1964; Gordon, 1964). Additionally, the trust and solidarity of

residents in ethnic districts may lead to employment and career opportunities (Portes and Bach, 1985; Zhou and Bankston, 1998).

Yet many ethnic immigrant communities have marginal economic resources, and the residents may lack the self-confidence and social skills to relate well with others in their neighborhoods. In addition, members of ethnic communities may exploit each other, engendering poor personal relationships, in an effort to climb on the backs of the fellow downtrodden (Mahler, 1995).

Zelinsky and Lee (1998) provide another theoretical perspective on this issue. They describe the social networks of many recent U.S. immigrants by the term "heterolocalism," arguing that spatial dispersal occurs rapidly and little need exists for localized social networks. According to them, immigrants often know how to speak English and have job skills that are in high demand. Economic mobility occurs rapidly, often through contacts outside the ethnic group. Contacts with others are maintained by telephone, visits, community groups, and churches that have no particular local base. Their view indicates that immigrant status should have little relationship to number of localized social ties.

In one of the few contemporary survey-based studies of social ties among immigrants (mainly Asian and Hispanic), Wierzbicki (2000) finds in Boston and Los Angeles that they have fewer localized ties than the native born. However, the local ties of the immigrants are more often with similar types of people (gender, job situation, ethnic status) than those of the native born, suggesting that immigrants depend on like-people for the social and economic support that they receive. Her research, however, does not consider directly whether the overall importance of immigrants in the neighborhood has much effect on social ties, independent of the individual-level characteristics of residents.

PREVIOUS RESEARCH

Many studies have investigated the influence of neighborhood context on individual-level behavior. As Sampson, Morenoff, and Gannon-Rowley (2002) point out in a review, this area of research has been a major growth industry in sociology. In our assessment, most of this research documents only limited neighborhood effects, once individual level variables are statistically controlled, and the resulting number of theoretical generalizations is quite limited.

A small number of studies have investigated the role of context in relationship to neighbor ties. One set of studies has used crosstabular analysis to determine whether differences in social ties remain across specific neighborhoods when respondents with the same individual-level characteristics are studied (Greer, 1972, pp. 135–136; Nohara, 1968). These studies found that neighborhood context as measured by overall degree of child-rearing had an influence on local social ties. In these studies, the researchers determined the influence of context when only one individual-level variable was controlled at a time; the question may be raised as to whether the same patterns would hold with simultaneous controls for more contextual and individual-level characteristics.

Consistent with the approach in this article, another set of studies has used multivariate regression analysis to explore the joint role of context and individual-level variables in relationship to neighbor ties. Unlike this study, however, the investigators treated contextual and individual-level variables as constituting only one level of analysis. Yet, these studies

fail to consider the dependence of observations due to clustering, a pattern that will result in inefficient estimates and biased standard errors.

Studying 12 Indianapolis neighborhoods, Woolever (1992) examined contextual effects on respondent feelings about their communities, and treated neighbor informal ties and organizational memberships as intervening variables. Contextual variables, measuring socio-economic status, population density, and racial heterogeneity, had small effects on interaction patterns and respondent feelings net of individual-level variables. Woolever reports that neighborhood density levels (highly correlated with the presence of rented homes in most research) had the strongest negative contextual effects on interaction patterns.

A sophisticated test of contextual effects is reported by Gerson, Stueve, and Fischer (1977), who appended neighborhood characteristics to an individual-level survey by the National Opinion Research Center of racial integration in neighborhoods across the United States. Their study analyzed only white, nonsouthern, urban respondents. The authors focused on the possible causal role of several contextual characteristics, including the presence of blacks, percent Catholic, proportion of recent residents, crime rates, degree of political activism, age of housing, and location in the suburban ring (as opposed to central city). Unlike the current study, these characteristics do not include such neighborhood features as the presence of the foreign born, the amount of commercial activity, and evidence of social disorganization.

The authors find that contextual effects, although often statistically significant, are almost universally small in absolute size across the several measures of neighborhood attachment, once individual-level predictors are controlled. In their summary table, Gerson, Stueve, and Fischer (1977, p. 161) report that only 2 of the 22 reported standardized regression coefficients are as large as .10. As an example, an index of neighboring has only three statistically significant predictors when other variables are controlled, presence of blacks, Beta $= -.09$; crime rates, Beta $= -.06$; suburban location, Beta $= .06$. Their tests of statistical significance did not consider how the geographic dependence of observations influence the results for the contextual predictors.

In related research on Detroit, Fischer and Jackson (1976, 1977) found that, among several contextual variables, the median income of the tract was the single best correlate of reported neighboring. Areas of high quality housing were also likely to have high rates of neighboring and membership in local organizations. However, these variables had no effect on these two types of ties when the class levels of the respondents and the quality of individual-level homes were controlled. The results therefore support Gans' argument that neighborhoods differ in social ties by the social class of their residents, but context in itself has little independent influence.

In summary, previous research has found some support for the idea that contextual effects matter in understanding neighboring patterns, but the strength of these effects appears to be quite weak. Our research moves beyond previous studies in three ways: First, it provides generally a more adequate consideration of the role of contextual versus individual-level variables. As far as we can determine, only Gerson, Stueve, and Fischer (1977) and Fischer and Jackson (1976, 1977) have used multivariate analysis for a number of variables and a large number of neighborhoods. Second, our analysis expands the number of contextual variables, including key theoretical indicators of urban theories. Third, this study is the first to examine neighboring with multi-level modeling; as a consequence, compared to previous research, it provides a proper statistical test of contextual influences.

SAMPLE, DATA, AND MEASURES

SEATTLE CRIMINAL VICTIMIZATION SURVEY

The SCVS supplies the individual-level survey data for this study. Although Seattle had 121 census tracts in 1990, the SCVS was based on a random sample of 100 of Seattle's 114 census tracts that had constant boundaries for multiple decades. Within each census tract, six blocks were sampled. Three of the blocks were picked because they had experienced at least one reported burglary within the year preceding the survey. Each of these blocks was then matched with one adjacent block. The sampling procedure thus produced 300 block pairs.

Within each census tract, approximately 50 persons were interviewed in 1991 by telephone for a total of 5,302 interviews. The interviews were spread relatively equally over the three block pairs in each census tract, resulting in 13 to 21 interviews per pair. Household directories with residential telephone numbers were used to identify potential respondents, and sampling generally occurred from a geographic starting point that identified the blocks. Of households that were deemed eligible for the study, 74.1 percent had residents who completed the survey. More details about the sample and sampling are found elsewhere (Miethe and Meier, 1994, pp. 79–83).

We have tried to maximize the cases per block pair for the multilevel analysis by substituting sample mean values for specific individual-level variables where information was missing. For most of the individual-level variables, the percentage of missing cases was less than 1 percent. The problem was somewhat greater for family income in 1989 where 11.1 percent of the 5,302 respondents had missing data. We inspected correlations of various individual and contextual variables with our measures of neighboring when missing values were included or excluded, but found little difference in the patterns.

The sample includes wide variation in social and demographic characteristics. Yet, it is not a truly representative sample of Seattle's population in 1990, which partially reflects the original investigators' decision to sample blocks where burglaries had recently occurred. Comparisons by Miethe and Meier (1994, pp. 82–83) suggest that the total SCVS sample was older, more educated, and less transient than the general population as enumerated in the 1990 U.S. census. However, in characteristics such as ethnicity, marital status, and household size the sample closely approximates the total Seattle census-enumerated population.[3]

A notable advance in this study is the linkage of individual-level survey responses with aggregated characteristics of the respondents' census block groups. Until the 1990 enumeration, the U.S. Census Bureau reported a large number of neighborhood characteristics only for census tracts, usually consisting of several thousand residents. It was thus difficult to relate the immediate environment to individual behavior among urbanites. The 1990 census subdivided tracts into block groups (typically two to five), usually of 500 residents, permitting the closer alignment of individual and contextual behavior. This is important because research on Seattle (Guest and Lee, 1983a) indicates that residents often differentiate neighborhoods of a few blocks from larger communities of several thousand residents that might be considered as local areas or districts of the city. The census blocks would thus be considered as approximations of neighborhoods, rather than local areas or districts.

Using the starting and ending addresses for each of the 300 block pairs in the SCVS, we identified the specific block group for each one. While the block pairs were generally important components of specific census block groups, they did not typically comprise the whole block group. Of the 300 block pairs, 191 had the vast majority of respondents in both blocks of each pair in a specific census block group. We eliminated the other 109 block pairs from the contextual analysis because the blocks in each pair were in different census block groups. Of the 191 eligible block pairs, 161 are analyzed in this study. Thirty eligible pairs were eliminated, mostly for statistical reasons: 28 were eliminated because at least one individual-level variable had constant values within the geographic area, a problem for multilevel modeling; one other was eliminated because two of the individual-level variables were perfectly correlated. An additional eligible block group was eliminated because census disclosure rules prohibited the release of data on variables in the analysis. Comparisons of the 2,858 individuals in the 161 block pairs showed that they were quite similar on average in most characteristics to the total SCVS sample.

NEIGHBORHOOD-LEVEL MEASURES

Using the census block and SCVS data, we specify a number of variables that help determine whether and how contextual factors influence neighboring.

Three variables reflect the ideas of the Chicago School perspective,

1. Area Age: The percentage of all housing units built before 1960, according to the 1990 census. The 1960s involved unusually great expansion of residential areas in the city of Seattle and the suburbs, and this variable provides a useful measure of old versus new areas.
2. Commercial Concentration: Survey respondents were provided a list of activities that might be located within three blocks of their homes. For each respondent, the total number of mentions of the following activities was calculated: store/gas station, bar/night club, fast food, bank/office, shopping center/mall. The items had individual-level correlations between .18 and .44, and all loaded clearly on one principal component. For each geographic unit, an average score was calculated over all respondents.
3. Social Disorganization: Survey respondents were provided with a list of areal characteristics within three blocks of their homes. For each respondent, the total number of mentions was calculated of the following three characteristics indicative of social disorganization: teenagers hanging out on the streets, trash/litter, abandoned/run down buildings. The dichotomized bivariate correlations for all individuals in the sample ranged between .21 and .33, and all loaded strongly on one principal component. For each geographic unit, an average score was calculated over all respondents.

   One contextual variable speaks to the issues that have been raised by both the Chicago School and Community of Limited Liability perspectives,

4. Residential Stability: The sum of z scores for two census variables—the percent of owner (as opposed to renter) occupied housing and the percent of individuals, five years and older, who are living in the same house as five years ago. Across the 161 areal units in this analysis, the two variables had a correlation of .814, and are

obviously difficult to separate in a multivariate analysis. This index variable is highly correlated with measures of areal family composition such as the percent of households containing married couples with children under 18. Duration of residence is a key variable for the Chicago School perspective, while home ownership reflects the Community of Limited Liability attention to community investment.

In addition, we ascertain whether community levels of socio-economic status are related to neighbor ties (as predicted by Gans' Social Class perspective) through the following variable.

5. Community Affluence: The sum of z scores for three highly intercorrelated census variables, the percent of households with incomes over $75,000 in the previous year, the percent of individuals (25 years and over) who have graduated from college, and the percent of employed workers in professional and managerial occupations. The intercorrelations among these aggregate variables ranged between .46 and .78. A similar index was constructed in neighborhood research on Chicago by Sampson, Morenoff, and Earls (1999).[4]

Finally, we consider two variables that indicate the immigrant or ethnic composition of the population,

6. Percent Foreign Born: In 1990, this census variable was highly correlated with the percentage of block residents who are racially categorized as Asian and Pacific Islanders. This pattern, of course, reflects Seattle's role as an important U.S. entry point for migrants from Asia.
7. Percent Black: Percent of non-Hispanic blacks, based on census data.

INDIVIDUAL-LEVEL ATTRIBUTES

Although not the central focus of this article, individual-level variables are crucial for the analysis since they need to be controlled statistically in the subsequent contextual analysis. Nevertheless, their relationships with neighboring assume some interest since they are also key ingredients in the three theories that are tested.

We consider five individual-level variables that previous research has frequently reported as correlates of social ties among neighbors:

1. Home-ownership—a dummy variable indicating whether the respondent is living in an owned (coded 1) or rented dwelling (coded 0).
2. Length of residence—the natural logarithm of the number of years the respondent has lived at the address. Unfortunately, in data coding, this variable was truncated at 10 or more years of residence. Scatter plots of the variable by the types of neighbor ties showed that they increased rapidly in the early years of residence but then leveled off. This indicates a probable ceiling effect with several years of residence, meaning that the truncation should not have a strong effect on the relationships among variables.
3. Presence of a child under 16 in the household—a dummy variable, coded 1 (child present) and 0 (not present).
4. Educational Attainment—coded into three discrete categories, less than high school completed (1), high school completion (2), college completion (3).
5. Income Level—the natural logarithm of the approximate midpoint of total family income for 1989. The original data were coded in the following categories, $0-$10k, $10-20k, $20-30k, $30-50k, $50-75k, $75-100k, over $100k.

Home ownership and the presence of children are crucial to predictions of the Community of Limited Liability perspective. Length of residence is central to the Chicago School perspective. Educational attainment and income are important indicators of Gans' emphasis on social class explanations.

Other individual-level variables might be considered, of course, such as chronological age and marital status. While these variables had some nontrivial relationships with the neighboring variables, their inclusion in the analysis also had some costs. In general, they added little to the explanation beyond the variables we are considering. In addition, given our generally small samples per block group (no more than 21 respondents), estimates of slopes become quite unreliable when numerous variables are considered in HLM analysis.[5] We have excluded individual-level variables for blacks and the foreign born because the HLM program deleted large numbers of spatial units since, due to residential segregation, no members of these groups were found.

METHODS AND ANALYSIS

Our empirical analyses take three steps. First, we use principal components to identify multiple dimensions of neighbor ties in Seattle neighborhoods, which then constitute our dependent variables. Second, we estimate a multi-level model of neighbor ties at both the individual and neighborhood level. The individual-level models predict people's neighboring activity based on their individual attributes, such as income, education, home-ownership, and length of residence. The neighborhood-level models predict a neighborhood's aggregate rate of neighboring based on neighborhood-level covariates derived from our three theoretical perspectives. By controlling for individual-level covariates, our neighborhood effects become contextual effects. Third, we examine cross-level interactions between individual attributes and neighborhood contextual variables.

To estimate the multi-level model, we use Raudenbush and Bryk's (2002) HLM program, which provides maximum likelihood estimates of our regression coefficients. Our contextual effects model is a random intercepts model that allows for dependence in households within neighborhoods. Our cross-level interaction model allows for random slope coefficients in the individual-level equations to be explained by our neighborhood covariates. We use Huber-White robust standard errors to adjust for heteroskedasticity (Raudenbush and Bryk, 2002).

MEASURING NEIGHBOR TIES

Previous analysis of the SCVS dataset has largely treated neighbor ties as unidimensional (Rountree and Warner, 1999; Warner and Rountree, 1997), but multiple dimensions may actually exist.[6] In turn, some contextual and individual-level variables may be more strongly related to one dimension of neighbor ties than another. Using principal components analysis, we determine the major dimensions of neighboring on the basis of 10 items:

1. Can you easily tell if a person is a stranger or resident on your city block?
2. Would you say that you know none, some, most, or all the people on your block on a first name basis?
3. Do you have any good friends or relatives who are neighbors on your block?

TABLE 1. Rotated Components of Seattle Neighboring

	COMPONENT		
	Interaction	Organize	Know
Good friends/Relatives on block	0.460	0.008	0.341
Watched neighbor's property when gone	0.432	0.125	0.341
Borrowed tools/Food from neighbors	0.782	−0.001	−0.160
Had dinner/Lunch with neighbor	0.729	0.033	0.015
Helped neighbor with problem	0.713	−0.025	−0.003
Participate block/Neighborhood assoc	0.061	0.822	0.009
Participate block activity with SPD	−0.045	0.919	−0.062
Currently belong neighborhood watch	−0.054	0.876	0.017
Recognize strangers on block	−0.163	−0.013	0.911
Know first name of people on block	0.275	0.108	0.559
Eigen value	2.658	2.720	1.980

Have you done any of the following activities with your current neighbors, have you . . .

4. Watched your neighbor's property when they are out of town?
5. Borrowed tools or small food items (e.g., milk, sugar) from your neighbors?
6. Had lunch or dinner with a neighbor?
7. Helped a neighbor with a problem?
8. Participated in an organized block activity or neighborhood association?
9. Participated in a block activity sponsored by the Seattle Police Department?
10. Do you currently belong to a community crime prevention program (like neighborhood/block watch program)?

All the responses were dichotomized yes or no except for Question 2. Among the questions with dichotomized responses, the percentage agreeing ranged widely. At one extreme, in the total sample (providing codeable responses), 72.8 percent reported helping a neighbor with a problem. At the other extreme, only 24.1 percent participated in a block activity with the Seattle Police Department. It is also noteworthy that only 20.3 percent knew all or most of the first names on their block, indicating that neighbor ties must be weak for many respondents.

Using principal components analysis, the three major dimensions with eigen values very close to or above 1.000 were extracted and rotated in an oblique fashion, permitting the dimensions to be intercorrelated. The oblique rotation was used because it seems reasonable to believe that the dimensions would have some causal relationship with each other. The three dimensions explained 61 percent of the variance among the variables. The resulting patterns are shown in Table 1.

Dimension 1: Neighbor Interaction, reflects the extent to which residents in the area interact with one another in a variety of ways including having had lunch or dinner with a neighbor (.73), having borrowed tools/food from a neighbor (.78), or having helped a neighbor with a problem (.71). Having friends/relatives in the neighborhood (.46) and watching neighbor's property (.43) also cluster on this dimension.

Dimension 2: Neighbor Organizing, reflects activities taken by residents to defend their neighborhood, especially with respect to crime and disorder. The measures that comprise this factor include participate in block/neighborhood association (.82),

participate in block activity with the Seattle Police Department (.92), and belong to a neighborhood watch (.88). There may be some logical dependence among these measures of organizational participation, but the results were still very similar when only two of the three items were included in the principal components analysis.

Dimension 3: Knowing Neighbors, reflects the extent to which area residents are familiar with others who live nearby, regardless of whether they interact with them. The variables with appreciable loadings on this factor include recognizing strangers on the block (.91) and knowing the first name of people on the block (.56).

We generated factor scores for these three dimensions and found that the intercorrelations across the entire SCVS sample ranged between .29 and .31. The factor scores constitute the dependent variables in the analysis.

Since the dimensions of neighboring are intercorrelated, we would expect some similar predictors from the individual statuses and contextual variables. However, as we show, the patterns need not be identical.

A MULTI-LEVEL MODEL OF NEIGHBOR TIES

We can partition the variance of the three measures of neighboring separately into the proportions that are due to neighborhood (for the 161 block pairs) and to individual-level variation. The great bulk of the variation in neighbor ties, regardless of dependent variable, is across individuals. However, there are clear differences in the importance of neighborhoods across the three dependent variables. Approximately 26.4 percent of the variance in organizational ties is between-neighborhoods; 16.0 percent is between-neighborhoods for knowing the names of neighbors, and only 5.6 percent is between-neighborhoods for social interaction.

The very small neighborhood effect for social interaction should be especially emphasized; levels of social interaction are nearly identical across neighborhoods, once we have controlled for individual-level characteristics. These patterns are intuitively believable: social interaction will depend heavily on the individual needs and interests of each household, and is difficult for communities to regulate. In contrast, many neighborhood organizations are based on the actions of extra-local interests such as the police or specific individuals within the area who stimulate others to join with them (Guest, 1999).

It is also believable that knowing about neighbors will vary more with context than social interaction. As Guest and Lee (1983b) emphasize in a study of 20 community areas in the central city and suburban ring of the Seattle metropolitan area, knowing about neighbors is important in areas where residents have a high degree of personal investment in territory. For those with children, knowing about neighbors may be crucial to certainty that their children are associating with the "right" people. For those owning homes, knowing about neighbors may be crucial to certainty that their properties will be protected when they are away. Knowing about neighbors may be a more cost-effective means of protecting one's investment in community than actually interacting a lot with neighbors, which may have positive social benefits but leads to a large time commitment. While these are largely individual-level effects to stimulate knowing about neighbors, they may interact to produce important contextual effects. Thus, in areas where many homeowners know about their neighbors, renters may also be drawn into the information web of the area through simple casual contact. In addition, homeowners will come into contact with other homeowners

TABLE 2. Relationships of Individual-Level Variables to Ties

	Interaction		Organize		Knowledge	
	Pearson r	B	Pearson r	B	Pearson r	B
Home owner	0.237***	0.118***	0.315***	0.233***	0.316***	0.219***
Years of residence	0.211***	0.188***	0.252***	0.154***	0.317***	0.202***
Total income	0.200***	0.104***	0.105***	0.021	0.007	−0.031
Education	0.151***	0.140***	0.039*	0.059**	−0.121***	−0.078***
Have child	0.170***	0.141***	0.084***	0.069***	0.070***	0.083***
R-squared		0.134		0.123		0.149

*$p < .05$ level, **$p < .01$ level, ***$p < .001$ level

who will further add to an individual's knowledge base. The net result may be a snowball influence in which the overall context leads to more information than would be available on the basis of simply knowing the individual types of persons in the area.

INDIVIDUAL-LEVEL MODEL

We initially consider the influence of the individual-level variables alone in predicting social ties among neighbors. This model follows the general approach of previous research in this area. Table 2 shows the standardized partial regression coefficients of the five variables at this level when they are used to predict the three different dimensions of ties among neighbors. The regression coefficients in these models are generally quite similar to those found for the individual-level variables in the two-level models. We have also shown in Table 2 the zero-order Pearsonian correlations of the individual-level variables with the neighboring variables.

Clearly, the data indicate the importance of localized roles and statuses in understanding the strength of nearby social ties. Home ownership and length of residence especially stand out as positive predictors of knowledge about neighbors and the strength of ties to neighborhood organizations. The standardized regression coefficients of these two variables are clearly much stronger than those of the other variables in predicting these two dependent variables. Having children is also significantly associated positively with these measures of social ties.

Support is mixed for the multivariate influence of the social class variables in predicting degree of knowledge and organizing. Education has a statistically significant negative effect in predicting knowledge about neighbors, and income fails to have significant effects for predicting either knowledge or organization.

In contrast, the social class variables have stronger positive influences on social interaction. Even though length of residence is the best positive predictor of social interaction, education is the second most important. While income is only the fourth largest regression coefficient, its positive coefficient is highly statistically significant. Having children and home ownership also have statistically significant positive effects.

NEIGHBORHOOD-LEVEL EFFECTS

Our primary concern is the effects of the neighborhood-level variables once the individual-level variables are controlled. We would expect a neighborhood-level variable such as

TABLE 3. Relationship of Contextual Variables to Ties

	Interaction			Organize			Knowledge		
	r	B.c	B.c,i	r	B.c	B.c,i	r	B.c	B.c,i
Residential stability	0.121***	0.045	−0.023	0.176***	0.071	0.043	0.263***	0.212***	0.154***
Housing age	0.107***	0.060*	0.041*	0.203***	0.162***	0.089**	0.134***	0.028	0.023
Commercial activity	−0.094***	−0.013	0.011	−0.125***	−0.004	−0.008	−0.186***	−0.034	−0.017
Social disorg.	−0.126***	−0.045	−0.018	−0.078*	−0.073	−0.005	−0.081*	−0.046	−0.002
Affluence	0.144***	0.075**	0.053*	0.076*	0.053	0.001	0.026	−0.026	0.016
Proportion black	−0.070*	−0.014	−0.014	0.041	0.082*	0.065	0.077*	0.089*	0.064
Proportion for. bor	−0.088**	−0.023	−0.013	−0.028	0.031	0.009	0.014	0.020	0.026

B.c = Beta, statistical control for other context variables
B.c,i = Beta, statistical control for context, individual vars.
*$p < .05$ level, **$p < .01$ level, ***$p < .001$ level

residential stability to be *correlated* with variation in social ties among neighbors because we have found that individual-level variables such as home ownership and length of residence are useful predictors. Thus, areas of residential stability could have high neighboring rates because most individuals are homeowners and/or long-term residents. The crucial issue is whether residential stability has an influence on neighboring beyond knowing about the types of individuals who live in the area. As discussed earlier, the Chicago School and Greer Limited Liability perspectives emphasize the importance of neighborhood-level effects, but these are especially emphasized in the former. Gans' social class perspective clearly de-emphasizes neighborhood-level effects. The multi-level models are estimated by maximum likelihood, using the HLM program (Raudenbush and Bryk, 2002).

Table 3 presents three pieces of information about the relationship of the neighborhood-level variables to the three dimensions of neighboring among the 2,858 individuals in the 161 spatial units. One column indicates the zero-order Pearsonian correlation between each contextual variable and each neighboring variable. The second column indicates the standardized partial regression effect of each neighborhood-level variable when *only* the neighborhood-level variables are included as predictors. We present this information since some of the relationship of the neighborhood variables with neighboring may be explained by their intercorrelations with other neighborhood-level variables. The third column indicates the standardized partial regression effect of each neighborhood-level variable when both neighborhood- and individual-level variables are included in the regression. These numbers are crucial to our analysis because they indicate the relationship of the contextual variables to variations in neighboring that are independent of the other variables in the analysis.

Most of the contextual variables have relatively weak correlations with the three dimensions of neighboring, and the relationships typically become even weaker when only the neighborhood-level variables are statistically controlled. On the surface, some support seems to exist for the predictions of the Chicago School. Residential stability and area age are the only two neighborhood-level variables to have correlations of at least .10 with all three dependent variables. Residential stability, also key to Greer's limited liability viewpoint, is the strongest correlate of neighborhood organizational

involvement and knowing about neighbors and is the second strongest correlate of interaction among neighbors. Older, relatively stable neighborhoods are most frequently characterized by interaction, organizational development, and knowing the names of neighbors.

In addition, the presence of commercial activity and social disorganization has zero-order relationships that are consistent with the Chicago School perspective. Areas of commercial activity and social disorganization are characterized by little interaction, low organizational development, and weak knowledge of neighbors.

Neighborhood affluence, key to social class theories, is the strongest positive correlate of interaction among neighbors and is also related positively to the development of organizational ties. It is virtually unrelated to knowledge about neighbors.

The variables measuring the presence of blacks and the foreign born generally have the weakest correlations with the three dependent variables, indicating that, at least in Seattle, these variables provide little help in understanding area-level variations in neighboring.

While some of these zero-order correlations suggest optimism about the possibility of neighborhood-level effects, the actual multi-level patterns are less supportive. Only four neighborhood-level relationships are statistically significant at the .05 level when the individual-level and neighborhood-level variables are statistically controlled in the HLM analysis.

Only one contextual variable, residential stability, has standardized effects that are greater than .10. As Table 3 shows, this contextual variable is a positive, statistically significant predictor (.154) of knowing about neighbors, but has virtually negligible relationships with interaction and organizational ties. Areas of high residential stability have more knowledge about neighbors, even after controlling for undoubtedly correlated individual-level characteristics such as home ownership and stability of residence.

The second strongest predictor is the area age, with older areas being characterized by high organizational ties. Lee et al. (1984) report a strong tendency for neighborhood organizations to continue from 1929 to 1979 in older parts of Seattle. Researchers on the general nature of formal organizations (Freeman, Carroll, and Hannan, 1983) report a liability of newness, meaning that new organizations are much more likely to fail or die than old organizations. One possible conclusion is that the institutionalization of organizations in the older neighborhoods explains their greater prevalence.

The effects of both affluence and area age are also statistically significant in predicting interaction. Affluent and older neighborhoods are characterized by high levels of interaction, even controlling for individual-level characteristics. Yet, the standardized regression effects are quite small in absolute terms, and graphs of the relationships showed that these variables increased prediction of social interaction little beyond knowing the individual characteristics of the respondents.

How much of the macro-level (aggregate level) variance in the various types of neighbor ties is explained by the specific contextual variables that we have considered? While contextual variation in interaction was least pronounced among the three dependent variables, the contextual variables explain 81.3 percent of the small amount of aggregate-level variance that exists. The contextual variables explain 59.6 percent of the overall across-neighborhood variance in knowing one's neighbors, while the variables explain only 36.8 percent of the across-neighborhood variance in neighbor organization. The relatively weak effects of these contextual variables in explaining degree of organization may be due to the fact that this type of tie depends frequently on specific actors,

from within or from outside the neighborhood. Thus, forming a neighborhood association may often be the consequence of the actions of one especially energetic member of the area or of specific decisions by the Police Department in regard to one neighborhood.

INTERACTION MODELS

To this point, we have only considered statistically the possibility that neighborhood context affects neighbor ties directly, once individual-level variables are controlled. In other words, location in certain contexts raises or lowers the probability of having neighbor ties for all types of persons within the area. This model assumes that individual-level variables operate the same way in all contexts. However, another possibility is that context matters because it conditions the effects of individual-level variables. In other words, the influence of individual-level variables such as home ownership on neighbor ties might depend on the type of neighborhood.

Given the number of individual- and neighborhood-level variables in the analysis, there are innumerable interactions that might exist across the two levels—so many, in fact, that some might by chance be statistically significant at conventional levels. Thus, one really needs a theory of why specific interactions might exist.

The strongest neighborhood effect that we have identified involves the tendency of area residential stability to increase knowledge of neighbors' names, independent of individual characteristics. Our results, to this point, have supported a model in which all types of individuals have roughly similar increased levels of knowledge when areal residential stability increases. As discussed by others such as McCorquodale and Pullum (1974), there is another possibility. Namely, in areas of high sustained information flow, those who are least likely to be informed may especially benefit from the availability of information. In such a case, we would predict that, while homeowners would generally have greater levels of knowledge than renters, the differences would be minimized in areas of high residential stability. The less invested, the renters, would still have lower levels of knowledge in stable areas than homeowners, but they would especially benefit from the general levels of information.

Using the HLM program, we found that the degree of area residential stability affected the influence of individual-level home ownership on knowledge of neighbors' names. An interaction term between individual home ownership and degree of area stability was highly significant ($p < .01$) in a model including additive effects for all the individual and contextual predictors. Both individual home ownership and collective residential stability increased knowledge of names, but the differences between owners and renters were diminished at high levels of residential stability.

This pattern is illustrated in Figure 1 where we show, for the three measures of neighboring, the influence of individual home ownership versus renting at varying levels of residential stability. The levels of area stability were determined by dividing the sample into five groups with approximately similar numbers of respondents per group. The neighboring scores have (approximately) means of 0.0 and standard deviations of 1.0. Thus, an average neighboring score of 1.0 indicates that residents in that category score about one standard deviation above the mean on that measure.

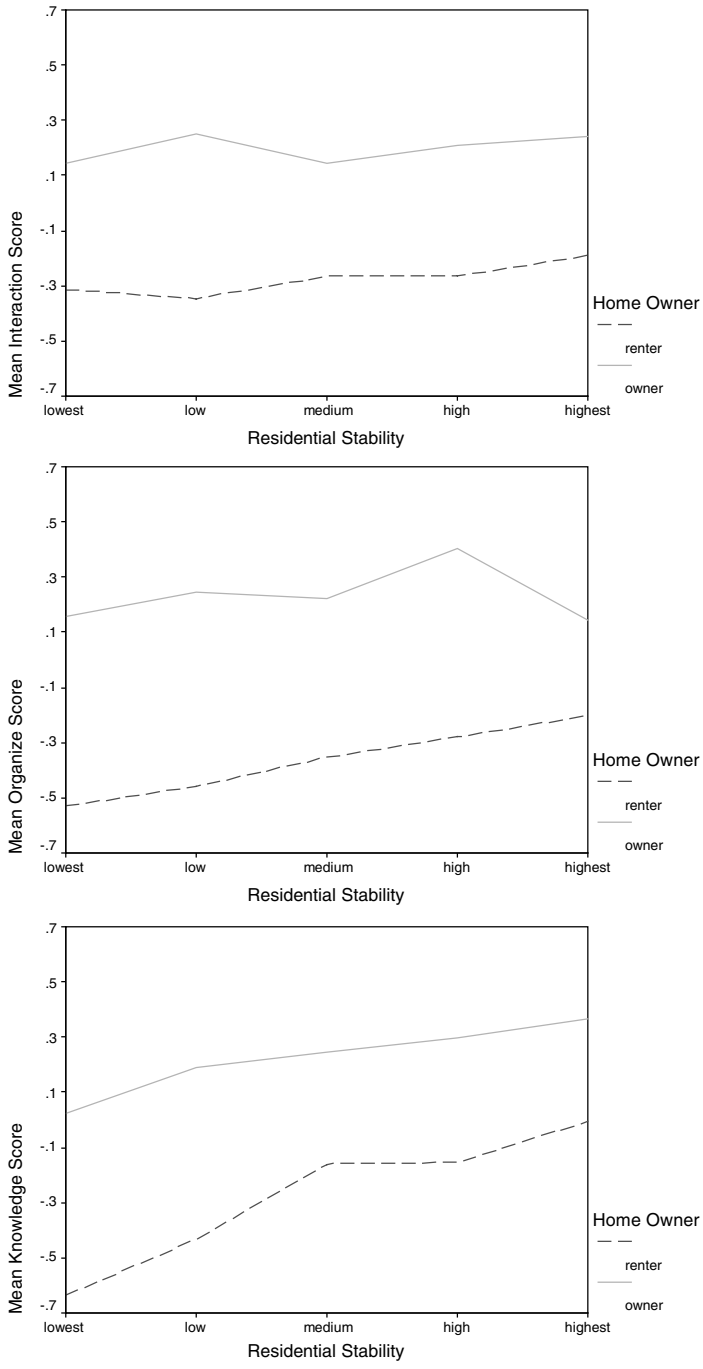

FIG. 1. Relationship of area stability, home ownership, neighboring.

Consistent with our previous results, individual homeowners in comparison to renters have higher neighboring scores on all three measures, even within similar levels of area residential stability. Also consistent with the previous discussion, area stability has a clear effect on neighboring only in regard to knowledge about neighbors. In other words, both owners and renters increase their knowledge about neighbors as levels of area stability increase.

The statistical interaction in prediction is indicated by the fact that, in Figure 1, knowledge about neighbors increases somewhat more rapidly among renters than homeowners as levels of area stability increase. In other words, homeowners and renters are most similar to each other in knowledge about neighbors at high levels of area stability. This is consistent with our hypothesis that the high information flow in highly stable communities "draws in" all types of community residents.

CONCLUSION

Does living in certain types of neighborhoods affect the nature of localized ties? In general, the contextual variables that we have considered have, at best, weak effects on the three dimensions of neighbor ties, once individual-level attributes of our respondents are controlled. The contextual characteristics included affluence, the age of housing, residential stability through home ownership and long-term residency, the presence of commercial activity, the social disorganization of the area, and the presence of the foreign born and African Americans. On the whole, these findings support Gans' position that characteristics of communities have minimal direct impacts on the lives of residents, and provide little succor for the Chicago School and Greer's view that community does matter.

The strongest contextual effects involve the positive relationship of neighborhood stability to knowledge about neighbors. Neighborhood stability also interacts, to a moderate degree, with individual levels of renting, to influence knowledge. But, interestingly to us, the independent effects of neighborhood stability are not evident when analyzing personal interaction or collective organization. In the contemporary metropolis, as Guest and Lee (1983b) have suggested, knowing about the neighbors may be as crucial to protecting one's investment as actually interacting highly with them. A related point has been made by Bellair (1997), who argues that even superficial contact with neighbors may be useful for protecting one's localized interests.

The other noteworthy finding about context is the relationship, albeit moderate at best, for older neighborhoods to have greater degrees of organization. From our data, we cannot determine the reason for this pattern, but consistent with the Chicago School perspective, it may relate to the fact that older neighborhoods have more entrenched and enduring ties, both within and outside the neighborhoods. These may facilitate the formation and continuance of community organizations that require the help and support of others.

One contextual characteristic that requires attention in future research is ethnic and racial heterogeneity in the nearby residential area. This may be viewed separately from simply knowing the overall percentage of a specific racial group in the area, although they are clearly related. We have not considered this variable explicitly in this research because a replication and extension of the SCVS study in 2002 and 2003 has much richer data on racial composition and racial attitudes of the respondents. Another article in preparation

deals with this topic but preliminary analyses of the recent data also fail to show strong effects for racial heterogeneity.

In analyzing contextual effects, the usual assumption (as in this article) is that individuals do not select homes on the basis of nearby social patterns that already exist. But we know, for instance, that individuals who are attracted to central city apartment houses probably rate the development of nearby social ties as a low priority (Michelson, 1977). The net consequences of this for our findings are not entirely clear. One possibility is that we have overestimated the individual-level effects of factors such as home ownership on ties with neighbors since the more "neighborly" are selected into owned homes, and, accordingly, reduced the influence of context. This is obviously a complex problem in terms of research design, and is probably best left to future research.

There may be other areal characteristics that matter, and there may be other cities or metropolitan areas where context counts a great deal. But, despite using some different measures, we agree with others (Fischer and Jackson, 1976, 1977; Gerson, Stueve, and Fischer, 1977) who find weak contextual influences on neighbor ties when several contextual and individual-level variables are considered simultaneously. On the whole, this article supports the findings in the large number of recent papers that report modest influences of neighborhood context on a broad variety of localized behaviors (Kubrin and Weitzer, 2003; Lee, Oropesa, and Kanan, 1994; Sampson, Morenoff, and Gannon-Rowley, 2002). Certainly, at this point, the burden should be on other researchers to demonstrate strong neighborhood contextual effects.

The findings in this article might be *mistakenly* read to mean that neighborhood context is virtually irrelevant as a correlate of social ties. Actually, residential stability and age have nontrivial relationships with all three dimensions of neighbor ties; the most useful general way to distinguish among neighborhoods in Seattle is through their levels of stability and age. In addition, community affluence, economic deprivation, and social disorganization all have noteworthy relationships with social interaction.

A variable such as area stability primarily influences levels of neighbor ties because individuals with long-term residence and homeowners are disproportionately located in these types of neighborhoods. Thus, individual-level predictions largely support the Chicago School's emphasis on residential stability as an important determinant of localized behavior (Kasarda and Janowitz, 1974) and Greer's emphasis on home investment (and, to a lesser extent, child-rearing) as an important motivating factor in contemporary community involvement. Community affluence primarily influences interaction because these types of neighborhoods attract individuals of high socio-economic status. This, in fact, corresponds with Gans' argument that contemporary neighborhood life needs to be understood as an aspect of a national social status system.

Given these relationships, one could argue legitimately that neighborhood stability is frequently likely to be an important contextual correlate of neighborhood life since it is, almost by definition, the sum of individual statuses of residence and home ownership. Neighborhood affluence is also likely to be an important correlate of neighbor ties since it is almost necessarily the sum of individual social status levels. In this respect, neighborhood context should be very useful for predicting neighborhood life, but not because the context itself is having much immediate impact.

In short, the relationships of traditionally cited structural correlates of neighborhood life are supported by this study. The major caveat is that the relationships are only weakly

contextual in the sense in which we have defined the term—that context influences behavior beyond the effects of individual-level variables.

Notes

[1] A moderately large literature (Huckfeldt, 1984; Rankin and Quane, 2000) also investigates the content or specific characteristics of social ties within sub-districts of the metropolis. In contrast, we focus more on the overall size of networks.

[2] Gans also recognizes the role of family statuses such as the childrearing in his analyses, but the primary emphasis is clearly on social class or rank position.

[3] As a relatively young city in the West, Seattle has less distinctive population characteristics (race, ethnicity, socio-economic status) in relationship to its suburban ring than many other central cities. While a study of contextual effects in the suburban ring would be useful, it would require a more complicated research design. The central city's predominant grid pattern of streets makes it relatively easy to link respondents with census geographic areas. The suburban ring has a less clearly defined street organization (Guest and Lee, 1983a).

[4] We also calculated an index of Community Deprivation, but do not include it in the subsequent analysis. The index was calculated from census data as the sum of z scores for three highly intercorrelated census variables—the percent of the population below the poverty level, the percent of the population on public welfare, and the percent of the households that are female headed. These variables all had intercorrelations across the 161 areal units of at least .500. Not surprisingly, Community Affluence and Deprivation are highly correlated negatively, but are not collinear. However, they need to be analyzed carefully in relationship to each other because there are virtually no block groups of Affluence that also have even moderate levels of Deprivation. In preliminary analysis, we found that Community Deprivation was consistently a weaker correlate of neighboring than Community Affluence, and had little influence in the multivariate regressions beyond its major inverse variable, Community Affluence.

[5] In preliminary regression analysis, we also considered variables that measure whether respondents were exposed to criminal behavior. For instance, one might argue that crime increases the propensity of neighbors to organize for self-protection, or that organization in block watches decreases the probability of crime. In addition, relatively anomic areas (where few neighbors know each other) may be characterized by unusually high interpersonal victimization such as crime rates.

For individual respondents, we determined whether they lived in a block that was part of the victim or control sample and whether they individually reported being criminally victimized. The relationships of these variables were essentially negligible with the three neighboring dimensions and did not change our other results. It must be recognized, nevertheless, that a cross-sectional analysis cannot resolve the complex relationships among these variables; the topic deserves more attention on a longitudinal basis.

[6] Studies (Rountree and Warner, 1999; Warner and Rountree, 1997) of neighboring in the SCVS dataset have aggregated variables to the census tract level before creating an index. In addition, previous analysis has generally measured neighboring by whether respondents engaged in any of the following, borrowing tools or food from neighbors, having lunch or dinner with a neighbor, or helping a neighbor with a problem. These items primarily measure interaction patterns, but are not necessarily indicative of neighborhood organization or knowing about neighbors, dimensions that we consider important in their own right, regardless of whether measured over individuals or aggregates.

Some indication of the aggregate-level relationships in the SCVS data is provided in Warner and Rountree's (1997) analysis for the 100 census tracts that were sampled. Their aggregated measure of social interaction (composed of the three above items) was most strongly correlated with residential stability (.55). Other important correlations were with poverty (–.51) and ethnic heterogeneity (–.43).

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