An Exploratory Study on Influencing Factors on Neighborhood-based Social Capital

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Ⅰ. Introduction

The notion of social capital has attained some prominence in various fields of social science. Researchers argue that certain characteristics of the civil space such as trust and participation in social networks may constitute a valuable resource for social groups, communities or societies. Following its rise to popularity, governments have increasingly recognized the relevance of the social capital concept for policy making, including urban policies. Especially in areas that possess relatively low levels of human and economic capital, such as disadvantaged neighborhoods, the concept highlights important resources that may have been overlooked in earlier analyses that emphasize essentially individual resources such as education and employment.

In its simplest form, the social capital theory predicts the higher levels of social capital will lead to a smaller amount of problems through instilling norms that will make people more law-abiding. In addition, social capital makes it easier to solve any collective problems through social networks that facilitate cooperation and trust that will engender reciprocity.

The attractiveness of the above approach is that it attaches primary importance to the capacity of civil society itself to tackle problems and redefines the role governments should play. When citizens themselves

are the key to the quality of communities, a new avenue of policy inter-
ventions is opened up.　In addition to direct governmental interventions
to solve a problem, a much more indirect way, commonly called "the
Third Way," is suggested in which governments try to increase the
capacity of communities to help themselves.

Distinguished from normal sense of community, in particular, geo-
graphically oriented neighborhood has been seen as the most potential
receptacle for social capital.　At the local level, mutual aid and self-help,
facilitated by a diversity of loose ties and mediating community organiza-
tions, are used by people to provide solutions, springboards and alterna-
tives (Burns and Taylor, 1998).　Policy increasingly seeks to encourage
such activities and solutions.

In spite of its importance, the causal mechanism to understand social
capital in neighborhood context has not been explored in systematic and
substantial way.　The purpose of this study is to identify neighborhood
characteristics that have influence on neighborhood-based social capital.
More specifically this study focuses on objective and subjective neighbor-
hood characteristics as explanatory factors on local social capital.
Many studies continue to report the deleterious effect of various negative
neighborhood characteristics on individual behavior and welfare.　Espe-
cially low socioeconomic status neighborhoods are considered to create
contextual effects that increase likeliness to suffer in various aspects of
residents' life.　In addition, an individual's perception of his or her own
neighborhood is closely related to his or her behavioral or emotional
patterns.　Related to these, this study seeks to explore how objective
poor neighborhood condition and personally perceived neighborhood
disorder influence neighborhood-based social capital such as informal ties
with neighbors, engagement in neighborhood organizations, and trust in

neighbors.   In addition, this study will explore the relationship of various socio-demographic variables to local social capital.   This empirical effort to understand a causal mechanism of local social capital will provide a knowledge base to draw some policy implications for neighborhood-based social capital building.

II．Theoretical Background

1.　Concept and Nature of Neighborhood

Neighborhood is a term that is hard to define precisely, but everyone knows it when they see it.   Many scholars employ different definitions. From a ecological perspective, Keller (1968: 89) defines it as a "place with physical and symbolic boundaries." Golab (1982: 72) uses it "a physical or geographical entity with specific (subjective) boundaries." Others have attempted to integrate social and ecological perspectives, as in Hallman's (1984: 13) definition: "a limited territory within a larger urban area, where people inhabit dwellings and interact socially." Warren (1981: 62) defines neighborhood as "a social organization of a population residing in a geographically proximate locale." Pointing out the difference from the term community, Davids and Herbert (1993: 1) also define neighborhood as "the area around a residence within which people engage in neighboring, which is usually viewed as a set of informal, face-to-face interaction based on residential proximity." Likewise, all extant definitions presume either a certain degree of spatial extent and/or social interrelationships within that space.   In this context, more generally, neighborhood can be considered as "a spatial construction denoting a geographical unit in which residents share proximity and the circumstances that come with it" (Chaskin, 1997: 522-523).

Highlighting the essential dimensions of neighborhood as the social, the

physical, and the experiential ones, Chaskin (1997: 539–540) points out the nature of neighborhoods as follows.

First, despite the definitional difficulties involved, differentiated subareas of the city are recognized and recognizable. They have developed and been defined through historical processes. But the delineation of boundaries is a highly negotiated, political process in that business, government, social service agencies, and other corporate actors attempt to define boundaries to serve their own political or instrumental aims.

Second, neighborhoods are open systems, connected with and subject to the influence of other systems. Individuals are members of several of these systems at once, and the perceived importance of each affiliation is likely to be contingent and changing.

Third, although relational networks among individuals are often dispersed beyond the neighborhood, instrumental relationships among neighbors remain common, providing mechanisms through which information and support may be exchanged and links to systems beyond the neighborhood may be fostered. The recognition of a neighborhood identity and the presence of a sense of community seems to have clear value for supporting residents acknowledgement of collective circumstances and providing a basis and motivation for collective action. In addition, residential stability fosters the development of interpersonal networks among neighbors and, through them, neighborhood attachment and social participation.

Finally, neighborhoods are experienced and used differently by different populations. Regarding experience, those most integrated into the larger society(e.g., women, married people, people of middle age, people with higher incomes and education) tend to have larger, more dispersed, more causal neighbor networks; those less integrated into the larger

society(e.g., singles, children and the elderly, those with lower income and less education) tend to have smaller, more intense, and more frequently engaged relationships in the neighborhood. Such organization may also differ across cultures, and the relationship may be curvilinear, with people living in particularly depleted neighborhoods again having fewer intense, frequently engaged relationships within the neighborhood. Regarding use, neighborhoods that are reasonably homogeneous, low-income, and have a fairly high percentage of young people may be the most likely areas for concentrated local use, if the necessary facilities, services, and institutions are available.

2. Concept and Dimensions of Social Capital

One of the driving forces behind much of the research on the neighborhood mechanisms has been the concept of social capital. However, defining social capital is rather problematic because the concept is pregnant with constituent elements of meaning that contradict one another. This is because many different scholars shed light on different aspects of the concept. In the following, we want to briefly review the work of Bourdieu (1986), Coleman (1988, 1990), Putnam (1993, 1995) which has been most influential in drawing the concept of social capital into widespread contemporary use in both academic and policy debates.

First of all, Bourdieu (1986: 249) defines social capital as "the aggregate of the actual or potential resources which are linked ⋯ membership in a group-which provides each of its members with the backing of the collectivity owned capital." The emphasis is on social networks that provide access to a group's resources. The outcome of this social capital is ultimately economic reward reaped through ongoing participation in the network as mutual benefits accrue. Social capital is therefore a

means, through social connections, to resources that are keenly sought in capitalist societies. Bourdieu's particular application of the concept social capital relates to understanding how individuals draw upon social capital to improve their economic standing in capitalistic societies.

Coleman defines social capital, not by what it is, but by what it does, or by its function. "The function identified by the concept of social capital is the value of these aspects of social structure to actors as resources that they can use to achieve their interests"(Coleman, 1988: S101). Coleman (1990: 302) defines social capital as "a variety of different entities, with two elements in common: they all consist of some aspect of social structure and they facilitate certain actions of actors (whether personal or corporate) within the structure." The aspects of social structure Coleman (1988) refers to comprise obligations and expectations, information channels, norms and effective sanctions that constrain and or encourage certain kinds of behavior and these 'exist in the relations among persons' (1988: S100-101). Coleman's application of the concept social capital is concerned to understand the role of norms and sanctions, within family and community networks, that facilitate the attainment of human capital. Both Bourdieu and Coleman see social capital as a means to increasing an individual's resources. While Broudieu is interested in social capital as a resource to economic capital for individuals, however, Coleman is interested in how social capital in family and community networks, is a resource to human capital for individuals.

A third key author in recent social capital debates is Putnam (1993, 1995). Putnam is interested in how social capital works at the regional level to support democratic institutions and economic development. Putnam operationalizes the concept of social capital at a different social scale to both Bourdieu and Coleman, although his definition of the

concept social capital is drawn directly from Coleman.　Putnam (1993: 167) defines social capital as "features of social organization, such as networks, norms and trust that facilitate coordination and cooperation for mutual benefit." Networks of civic engagement (neighborhood associations, choral societies, cooperatives, sports clubs, etc) are an essential element of social capital as they foster robust norms of reciprocity. These norms in turn sanction those who do not reciprocate.　Norms of trust and reciprocity within networks are the capital resources, the outcomes of which are various forms of collective action.　Putnam's focus is upon the system level behaviors as he is concerned to explain economic and political development at regional and national levels.　This focus on outcomes for regions and nations distinguishes Putnam's work empirically from those of Coleman and Borudieu (Portes, 1998; Stone and Hughes, 2002).

Based on long debate on the concept, more recently, OECD defines social capital as "networks, together with shared norms, values and understandings which facilitate cooperation within or among groups" (OECD, 2001: 41).　The OECD definition is emerging as a common basis for international comparability (Australian Bureau of Statistics, 2004: 5).

Although there is a virtually endless debate about what social capital really is, by now there seems to be agreement that it is a multidimensional concept that encompasses both a structural and a cultural (or attitudinal) dimension (Van Deth, 2003; Uslaner and Dekker, 2001).　The structural dimension refers to the extent to which citizens are engaged in all kinds of informal and formal networks that may connect them to their neighborhood and the wider worlds as well through connections at the workplace and memberships in all kinds of associations.

The attitudinal dimension is about people's mindsets.　Many scholars

equate this dimension simply with social trust, even though this dimension also incorporates norms and values.　The trust dimension refers to personal and social trust and tells us something about someone's outlook on fellow citizens, which may have important implications for one's own behavior, for example, the willingness to invest time in the provision of collective goods.

This study will focus on three dimensions of neighborhood-based social capital: informal social ties with neighbors, engagement in neighborhood organizations, and trust in neighbors.　The first two can be considered as a structural dimension of social capital, and the last as attitudinal one.

3.　Neighborhood Disadvantage

Wilson (1987) argues that the concentration of poverty results in the isolation of the poor from the middle class and its corresponding role models, resources, and job networks.　More generally, he argues that being poor in a mixed-income neighborhood is less damaging than being poor in a high poverty neighborhood.　Concentration effects increase the likelihood of being unemployed, dropping out of school, taking up crime, and becoming pregnant out of wedlock.　These effects are called 'neighborhood effects.' Neighborhood effects focuses on the spatial configuration of poverty or affluence and posit that neighborhood socioeconomic context affects individual outcomes over and above individual socio-demographic characteristics.

Residential concentration of socially disadvantaged individuals may create conditions that decrease social capital.　Disadvantaged neighborhoods lack economic and social resources.　When resources are scarce, everyone competes for an inadequate pool of resources, some individuals will take whatever they can get by any means, and the consequences of

losing the little one has will be devastating (Brehm and Rahn, 1997; Woolcock, 1998). Scarcity may lead individuals to exploit others. The zero-sum world view regards the total amount of wealth, power, or prestige as limited, so that one person's gain implies another person's loss. People with few resources compete for a limited pool of resources (Ross et al., 2001).

In addition, informal social control weakens in disadvantaged neighborhoods. The combination of scarce resources and weak control generates a threatening environment characterized by incivility and crime. Life under such conditions can decrease social capital. Disadvantaged neighborhoods have fewer resources like good schools, parks, and medical services, which may indicated to residents that mainstream society has abandoned them (Wilson, 1987). Persons feeling abandoned on an island of disadvantage may believe it safest to suspect everyone and trust no one (Ross et al., 2001: 572). Compared with disadvantaged neighborhoods, more advantaged might have higher levels of informal social ties and trust that bind neighbors together and help maintain social order (Sampson and Groves, 1989).

4. Perceived Neighborhood Disorder

Recently many researchers have emphasized the importance of perceived neighborhood characteristics on individual behavior and quality of life. How an individual's perception of his/her neighborhoods affects his/her mental, physical condition, independent of objective features of the neighborhood.

Neighborhood disorder refers to the perceived lack of order and social control in the community (Skogan, 1990). Order is a state of peace, safety, and observance of the law, and control is an act of maintaining

this order.　Order and control are indicated by visible cues that residents perceive.　These cues are social and physical (Skogan, 1990; Ross and Mirowsky, 1999, 2001).　Social disorder refers to people.　Visible signs of social disorder include the presence of people hanging out on the streets, drinking, taking drugs, panhandling, and creating a sense of danger. Physical disorder refers to the physical appearance of a neighborhood. Places with high levels of physical disorder are noisy, dirty, and run-down; many buildings are in disrepair or abandoned; and vandalism and graffiti are common.　On the other end of the continuum, visible signs of physical and social order include quiet, drug-free neighborhoods, where buildings are in good repair, people take good care of their houses and apartments, and there are not a lot of young people hanging out.

　To describe his or her neighborhood, a person must be aware of it and perceive it, and two people in the same neighborhood might describe it somewhat differently.　Nonetheless, both are describing an objective place.　Therefore, there has turned out to be high correlations between respondents' reports of disorder in their neighborhood and independent assessments by researchers (Perkins and Taylor, 1996; Geis and Ross).

　People who report that they live in neighborhoods characterized by disorder may lack social ties with their neighbors.　The signs of disorder indicate a potential for harm, even to residents who have not been victimized.　These signs suggest that many neighbors do not respect other people or their property, that agents of social control are unable or unwilling to cope with local problems, and that the neighborhood has been abandoned and its residents must fend for themselves.　Empirically, residents of neighborhoods characterized by disorder may be less likely to chat with one another, visit each other's home or apartment, or lend things to one another and less likely to participate in neighborhood

improvement or community service organizations (Liska, 1987; Geis and Ross, 1998; Ross and Jang, 2000).

5. Research Questions

Specific research questions of this study are as follows. First, do informal ties with neighbors, participation in neighborhood organization, and trust on neighbors vary by neighborhood? If these components of the model show no variation at the neighborhood level, it would be unnecessary to estimate the effects of the neighborhood characteristics.

If the answer to the first research question is yes, we ask the second question: Do the neighborhood characteristic such as poverty explain this between-neighborhood variation in the outcomes? The variation across neighborhoods actually may be due to individual differences within neighborhoods (a compositional effect). According to neighborhood effect theory, however, neighborhood differences are real and should not be explained away by neighborhood composition.

In addition to answering these two questions, this study will explore not only the effect of perceived neighborhood disorder as an individual-level but neighborhood-related factor, but also those of socio-demographic variables on neighborhood-based social capital.

Ⅲ. Data and Methods

1. Sample

The neighborhood-level data for our analyses are drawn from Daejeon Metropolitan City neighborhoods in Korea based on stratification sampling.   We first delineated some boundaries for important neighborhoods on the basis of information city government officials provided us with. Then we classify those neighborhoods three categories: poor, middle

-income, and rich neighborhoods.　We selected randomly 6 poor neigh-borhoods, and 5 middle-income and 5 rich neighborhoods.　60 households were randomly sampled from each neighborhood as survey respondents. The adult (18 or older) with the most recent birthday was selected as the respondent, which is an efficient method randomly to select a respondent in the household.　The survey was administered from May 23, 2003 to May 30, 2003.　The total number of collected data was 873.　Removing some insincerely answered or missing data yielded a final sample of 828 respondents.

Among respondents, 35% were men and 65% were women.　Respondent's ages ranged from 18 to 77 years (M=41.03; SD=10.74); education levels from 6 to 18 years (M=13.01; SD=3.31); monthly household incomes from ¥250,000 to ¥10,000,000 (M=2,508,400; SD=2,007,554).

2.　Measures

Informal social ties with one's neighbors are measured with four items indicating the frequency of visiting and chatting with neighbors, the frequency of borrowing small items from neighbors, and the frequency of helping neighbors out.　Respondents were asked to rate the following questions on a 5 point scale ranging from very often (5) to very rarely (1): "I visit informally with neighbors," "I say hello to neighbors and chat with them," "I borrow something small from neighbors, such as cup of sugar or a tool or lend to them," and "I give my neighbors a hand (helping with home repairs, car maintenance, daily chores, etc.), and vice versa." A mean score index was used with an alpha reliability of 0.8412.

Formal engagement in neighborhood organizations is measured by four items whose combination focuses on two aspects: whether or how often respondents take part in neighborhood organizations such as parent or

resident organization; whether or how often they have experience to take responsible position in those organizations. The specific questions as follows: "Do you currently belong to any kind of neighborhood organization like parent group, resident autonomy center, or neighborhood meeting. If yes, how often do you participate?"; "Have you ever taken any responsible positions such as key managing staffs or representatives in neighborhood organizations? If yes, how often have you taken them?" Combining two separate questions, the answers are scored on a 5 point scale in which 'do not belong' or 'never taken' is coded 1, 'belong but never or seldom participate' or 'has taken but rarely' 2, 'sometimes' 3, 'often' 4, and 'very often' 5. A mean score index was used with an alpha reliability of 07081.

Trust in neighbors is measured with the following simple question on a 5 point scale from very much (5) to never (1): "How much do you trust in your neighbors?"

In previous studies mostly carried out in the United States, neighborhood disadvantage has been calculated by census track variables of standardized summed scores for percent below poverty line, percent female head of household, percent male unemployment, percent families on public assistance. Since in those studies neighborhoods are typically defined by census tracks for which data for objective characteristics are available, they can treat neighborhood disadvantage with continuous variables. But in Korea, census track data to identify neighborhood characteristics are not available. Since our delineation of neighborhood boundaries is based on expert opinion rather than statistical or administrative one, it is impossible to acquire objective figures for selected neighborhoods in terms of their socioeconomic characteristics. In this study, we treated neighborhood disadvantage as dummy variable based

on the survey subjects' responses. We designated as disadvantaged (poor) neighborhoods ones in which the proportions of households on public assistance among each neighborhood respondents are higher than 20%. Consequently 6 neighborhoods were identified as poor ones. Those ones were coincided with 6 neighborhoods originally sampled from poor neighborhoods.

Perceived neighborhood disorder is measured with the Ross and Mirowsy (1999) neighborhood disorder scale. The index measures physical signs of disorder such as graffiti, vandalism, noise and abandoned buildings, and social signs such as crime, people hanging out on the street, and people drinking. The index also includes reverse-coded signs of neighborhood order. Respondents were asked the degree to which they agreed with the following statements: "There is a lot of graffiti in my neighborhood," "There are log of abandoned buildings in my neighborhood,' "People in my neighborhood take good care of their houses and apartments," "There are too may people hanging around on the streets near my home," "There is a lot of crime in my neighborhood," "There is too much alcohol use in my neighborhood," "I am always having trouble with my neighbors," and "My neighborhood is safe." Respondents rated these items on a 5 point scale ranging from strongly agree (5) to strongly disagree (1). A mean-score disorder index was created with an alpha reliability of 0.916.

I use the following variables in this study as individual-level controls: sex, age, education, income, residential type, housing ownership, and years of residence. The individual-level controls are socio-demographic factors that are known to predict endogenous variables. Those variables are treated as follows: (1) Sex (male＝1); (2) age (in years); (3) education (school years); income (monthly household income); (4) residential type

(apartment＝1); (5) housing ownership (own＝1); (6) years of residence (5 years or more＝1).

3. Analysis Technique

I use hierarchical linear model (HLM) to examine the research question and hypotheses posed in this study. HLM was designed specifically to analyze nested data.[1] In this study, individuals are nested within neighborhoods. Accordingly, when data was nested, dependence among individual responses from the same neighborhood is likely, which can lead to biased standard error estimates. HLM corrects for this problem by including a random effect for each neighborhood. This, in turn, leads to more accurate estimation of model parameters (Snijder and Bosker, 2002; Kreft and Leeuw, 2000). The more specific type of HLM applied in this study is a random intercept model which is the simplest one and treats only intercept rather than slope as random.

This study carried out statistical analysis by means of SAS procedure MIXED for multilevel modeling. PROC MIXED is a procedure oriented toward general mixed linear models, allows us to analyze practically all hierarchical linear model examples for continuous variables (Singer, 1998).

IV. Results

1. Influencing Factors on Informal Social Ties with Neighbors

Table 1 shows the result of applying HLM to identify influencing factors on informal social ties with neighbors. Model 1 applied a HLM that contains only the intercept for each neighborhood. This is a totally unconditional model. As seen in Table 1, the between-neighborhood variance is significant. This implies that with no explanatory variable,

there exists variation across neighborhoods in terms of informal social
ties with neighbors.　At the same time, the significant within-neighbor-
hood variance implies there are differences in the level of informal ties
among individuals within neighborhood.

　Model 2 includes as an explanatory variable whether the neighborhood
is poor or not.　Generally macro-level variable does not affect between
-neighborhood variance, but within-neighborhood variance.　Table 1
shows adding the poor neighborhood variable have influence only on
between-neighborhood variance.　But whether a neighborhood is poor or
not does not appear to have statistically significant influence on informal
ties.　That is, neighborhood poverty does not explain variation across
neighborhoods.

　Adding socio-demographic variables, Model 3 shows decrease much in
within-neighborhood variance as well as a little in between-neighborhood
variance.　This implies that some individual-level independent variables
have significant effect on the individual level of informal ties.　More
specifically, gender, age, income, and housing ownership appear to be
statistically significant.　The signs of coefficients indicate that if a
respondent is female, older, has less income, and owns house, the higher
the informal ties.

　　Model 4 adds perceived neighborhood disorder to the previous model
as explanatory variable.　Table 1 shows neighborhood disorder has
negative influence on the informal ties.　That is, the higher the percep-
tion of neighborhood disorder, the lower the informal ties.　The signifi-
cant decrease in both within- and between-neighborhood variances indi-
cates the explicability of individual- and neighborhood-level informal ties
by neighborhood disorder.

Table 1   Influential Factors on Informal Social Ties with Neighbors

	Model 1 b (s.e) (p)	Model 2 b (s.e) (p)	Model 3 b (s.e) (p)	Model 4 b (s.e) (p)
Neighborhood-related Variables				
Poor Neighborhood		−0.01576 (0.1833) (0.9327)	0.07695 (0.1918) (0.6943)	0.1702 (0.1871) (0.3784)
Neighborhood Disorder				−0.1800** (0.05988) (0.0027)
Socio-Demographic Variables				
Gender (Male=1)			−0.3860** (0.06865) (<.0001)	−0.3658** (0.06867) (<.0001)
Age			0.007816* (0.003522) (0.0267)	0.007084* (0.00351) (0.0440)
Education			0.01834 (0.01344) (0.1727)	0.01668 (0.01339) (0.2131)
Income			−0.00056** (0.000218) (0.0099)	−0.00060** (0.00021) (0.0061)
Residential Type (APT=1)			−0.02378 (0.1035) (0.8183)	−0.06060* (0.1027) (0.5555)
Housing Ownership (Own=1)			0.2267** (0.08096) (0.0052)	0.2063* (0.08091) (0.0110)
Length of Stay (5 years or more=1)			0.06011 (0.06908) (0.3845)	0.05459 (0.06879) (0.4277)
Constant	2.5296**	2.5354**	2.0748**	2.6117**
Between-Neighborhood Variance	0.1088** (0.04276) (0.0092)	0.1089** (0.04731) (0.0107)	0.1076* (0.04934) (0.0146)	0.09759* (0.04586) (0.0167)
Within-Neighborhood Variance	0.8506** (0.04221) (<.0001)	0.8506** (0.04221) (<.0001)	0.8096** (0.04038) (<.0001)	0.8028** (0.04007) (<.0001)

*P<.1, **P<.05, ***P<.01

2.　Influencing Factors on Engagement in Neighborhood Organizations

Table 2 shows the results of applying HLM in terms of engagement in neighborhood organizations.　Model 1 is null one with no explanatory variable.　The significant between- and within-neighborhood variances indicate significant variations across neighborhoods and individuals within neighborhoods.

Model 2 includes neighborhood poverty as a neighborhood-level variable.　The result shows the neighborhood poverty accounts for the significant portion of neighborhood-level variation in engagement in neighborhood organizations.　The poor neighborhoods show lower engagement.

Model 3 is to assess the influence of the individual-level independent variables on the outcomes to determine whether a significant level of between-neighborhood parameter variance remains to be explained once the individual-level factors are controlled.　The result shows the disappearance of poor neighborhood effect.　Instead it reveals individual-level variables such as gender, age, education, and length of stay have significant influence on both neighborhood- and individual-level engagement.　This outcome is evidence of compositional effect.　That is, between-neighborhood variation in engagement in neighborhood organizations is due to individual differences within neighborhoods.

Model 4 adds perceived neighborhood disorder as an explanatory variable.　The result reveals its significant negative effect on engagement.　That is, the higher an individual perceives disorder, the lower the engagement.

3.　Influencing Factors on Trust in Neighbors

The between- and within-neighborhood variances of Model 1 show the

Table 2 Influencing Factors on Engagement inNeighbors Organizations

	Model 1 b (s.e) (p)	Model 2 b (s.e) (p)	Model 3 b (s.e) (p)	Model 4 b (s.e) (p)
Neighborhood-related Variables				
Poor Neighborhood		-0.3823* (0.1448) (0.0194)	-0.09952 (0.1399) (0.4884)	0.0140 (0.153) (0.928)
Neighborhood Disorder				-0.2349** (0.08783) (0.0077)
Socio-Demographic Variables				
Gender (Male=1)			-0.5220** (0.1020) (<.0001)	-0.4748** (0.1023) (<.0001)
Age			0.03769** (0.005141) (<0.001)	0.03672** (0.005160) (<0.001)
Education			0.06685** (0.01993) (0.0008)	0.06400** (0.01994) (0.0014)
Income			0.000304 (0.000306) (0.3209)	0.000253 (0.1187) (0.4122)
Residential Type (APT=1)			0.02713 (0.1135) (0.8111)	-0.01695 (0.1187) (0.8865)
Housing Ownership (Own=1)			0.1208 (0.1173) (0.3030)	0.08576 (0.1180) (0.4677)
Length of Stay (5 years or more=1)			0.2708** (0.1015) (0.0078)	0.2670** (0.1014) (0.0086)
Constant	1.3267**	1.4639**	-1.1879**	-0.4717**
Between-Neighborhood Variance	0.06600* (0.03887) (0.0448)	0.03714 (0.02851) (0.0964)	0.01003 (0.01792) (0.2879)	0.01825 (0.02163) (0.1994)
Within-Neighborhood Variance	1.9903** (0.1000) (<.0001)	1.9894** (0.09994) (<.0001)	1.7794** (0.08975) (<.0001)	1.7613** (0.08894) (<.0001)

*P<.1, **P<.05, ***P<.01

significant variations across neighborhoods as well as individuals within neighborhood.　As indicated in Model 2 of Table 3, neighborhood poverty has a negative effect on trust in neighbors.　That is, the poor neighborhood shows lower trust on neighbors.

As shown in the result of Model 3, however, the significant effect of poor neighborhood disappears once the individual-level factors are controlled.　Instead socio-demographic variables such as gender, age, type of residence, and housing ownership appear to be statistically significant.　Female, older, apartment-residing, and house-owning respondents, respectively, show higher trust on neighbors.　The addition of neighborhood disorder as an explanatory variable in Model 5 shows a significant negative effect of neighborhood disorder on trust in neighbors.　That is, higher disorder indicates lower trust in neighbors.

V．**Discussion**

The research result shows no neighborhood effect on the three types of social capital.　We may draw some reasons for this result.　First of all, the neighborhood effect identified mostly in the context of developed countries such as the United States and United Kingdom is closely related with the isolation or exclusion of the disadvantaged neighborhoods. This isolation makes it difficult for residents in those neighborhoods to access to socioeconomic resources and to be exposed to middle class norms.　But the degree of poor neighborhood from rest of society in Korea might not be severe as much as the other countries.　Consequently the effect of disadvantaged neighborhoods on neighborhood-related social capital might not appear to be so large.

From a methodological point of view, secondly, it might be difficult to capture neighborhood effect more accurately with dummy variable based

Table 3   Influencing Factors on Trust in Neighbors

	Model 1 b (s.e) (p)	Model 2 b (s.e) (p)	Model 3 b (s.e) (p)	Model 4 b (s.e) (p)
Neighborhood-related Variables				
Poor Neighborhood		−0.1973 (0.07770) (0.0236)	−0.1275 (0.07914) (0.1295)	−0.05881 (0.07691) (0.4572)
Neighborhood Disorder				−0.1397** (0.04453) (0.0018)
Socio-Demographic Variables				
Gender (Male=1)			−0.1048* (0.05180) (0.0434)	0.08990 (0.05182) (0.0832)
Age			0.005571* (0.002617) (0.0336)	0.005055 (0.002604) (0.0526)
Education			0.00299 (0.01007) (0.7664)	−0.00401 (0.01002) (0.6893)
Income			−0.0000171 (0.000158) (0.9914)	−0.00004 (0.000157) (0.8031)
Residential Type (APT=1)			0.1474 (0.06176) (0.0172)	0.1190 (0.05960) (0.0462)
Housing Ownership (Own=1)			0.1559** (0.06013) (0.0097)	0.1343 (0.06001) (0.0255)
Length of Stay (5 years or more=1)			−0.00159 (0.05170) (0.9754)	−0.00420 (0.05132) (0.9348)
Constant	3.4438**	3.5172**	3.1662**	3.5848**
Between-Neighborhood Variance	0.02121* (0.01118) (0.0290)	0.01307 (0.008465) (0.0613)	0.006864 (0.006473) (0.1445)	0.004281 (0.005469) (0.2169)
Within-Neighborhood Variance	0.4734** (0.02352) (<.0001)	0.4734** (0.02352) (<.0001)	0.4661** (0.02326) (<.0001)	0.4625** (0.02310) (<.0001)

*P<.1, **P<.05, ***P<.01

on respondents' answers rather than neighborhood-level objective data on unemployment, below-poverty level residents, etc. Thirdly, there is a possibility that in spite of its lack of direct effect on neighborhood-related social capital, poor neighborhood environment might indirectly affect the social capital by having influence on the perception of neighborhood disorder. Generally, poor neighborhoods show higher level of perceived neighborhood disorder. Application of HLM to our data also indicates the significant effect of neighborhood poverty on the perceived neighborhood disorder after controlling the other individual-level variables (p< 0.0002).

Reflecting on the relationship between socio-demographic and social capital variables, we can draw some implications for community problem solving. First of all, the result that female has the higher levels of all three types of social capital indicates higher possibility to create collective action among women in neighborhood level. In this context, it seems very important to provide more opportunity for women to exercise such collaborative action potential for community problem solving and capacity building. In the same vein, we have to pay more attention to age variable in order to take advantage of neighborhood-related social capital. We may construct collective action more easily in the neighborhood level by drawing on the higher level of social capital of older people.

Housing ownership and length of stay also appears to have important influence on social capital one way or another. This implies the importance of residential stability for social capital building. As compared with 4.9% of Japan and less than 2% of European countries, 19.0% moving rate of Korea in 2000 indicates a severe residential instability which might hinder social capital building (Lee Jong-Su, 2002: 26; An Seong Ho, Gwak Hyeon, 2003). In order to draw upon community

residents' voluntary collaboration to solve local problems, there must be consistent policy efforts by governments to stabilize housing life.

Perceived neighborhood disorder appears to consistently affect all three types of social capital. The result indicates some effort to be required for correcting neighborhood disorder to build social capital or community capacity. Especially physical disorder is likely to be corrected by relatively small efforts by residents or local governments such as replacing broken windows, removing graffiti or abandoned cars, and cleaning building or streets. The future research effort should be made to catch the relationship among neighborhood disorder, policy intervention and its effect.

According to the results, the between-neighborhood variances for engagement in neighborhood organizations and trust in neighbors do not appear to be significant after including all the individual- and neighborhood-level variables. Even after controlling all the variables, on the other hand, there exists a significant variation across neighborhoods in informal ties with neighbors. The future research has to pay attention to identify some variables to explain this variation. It seems to be very helpful for that purpose to carry out case studies based on the selection of some neighborhoods that show rather extremely high and low levels of social ties.

This study is based on small number of neighborhoods in Daejeon Metropolitan City in Korea. In order to get more external validity of the research results, it should be complemented by future studies that will incorporate more neighborhood cases across various regions and neighborhood-related variables.

Notes

1   The HLM is a type of regression model that is particularly suitable for multilevel data.   It differs from the usual multiple regression model in the fact that the equation defining the hierarchical linear model contains more than one error term: one for each level.   As in all regression models, there is a distinction between dependent and explanatory variables: the aim is to construct a model that expresses how the dependent variable depends on, or is explained by, the explanatory variables.   The dependent variable must be a variable at level one: the HLM is a model for explaining something that happens at the lowest, most detailed level.

References

Australian Bureau of Statistics. (2004).   *Measuring Social Capital: An Australian Framework and Indicators*.   February.

Brehm, John, and Wendy Rahn. 1997.   Individual-Level Evidence for the Causes and Consequences of Social Capital. *American Journal of Political Science*.   41(3): 999-1023.

Bourdieu, Pierre. (1986) The Forms of Capital.   in J.   Richardson (ed.), *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood.   241-258.

Burns, D.   and M. Taylor. (1988).   *Mutual Aid and Self Help*.   Bristol: Polity Press.

Campbell, K. E., and B. A. Lee. (1992).   Sources of Personal Neighbor Networks: Social Integration, Need, or Time? *Social Forces* 70: 1077 -1100.

Chaskin, Robert J. (1997).   Perspectives on Neighborhood and Community: A Review of the Literature.   *Social Service Review*, 71(4): 527-548.

Chaskin, Robert J., and Sunil Garg. (1997). The Issue of Governance in Neighborhood-Based Initiatives. *Urban Affairs Review*. 32(5): 631 -661.

Coleman, James S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94: 95-120.

Coleman, James S. (1990). *Foundations of Social Theory*. Cambridge: Belknap Press of Harvard University Press.

Davies, Wayne. K., and David. T. Herbert. (1993). *Communities within Cities: An Urban Social Geography*. London. Belhaven Press.

Foley, Michael W., and Bob Edwards. (1999). Is It Time to Disinvest in Social Capital? *Journal of Public Policy*, 19(2): 141-173.

Forrest, Ray, and Ade Kerns. (2001). Social Cohesion, Social Capital and the Neighborhood. *Urban Studies*, 38(12): 2125-2143.

Geis, Karlyn J., and Catherine E. Ross. (1998). A New Look at Urban Alienation: The Effect of Neighborhood Disorder on Perceived Power-lessness. *Social Psychology Quarterly*. 61(3): 232-246.

Guest, Avery, and Susan K. Herbert. (1999). Social Ties at the Neighbor-hood Level: Two Decades of GSS Evidence. *Urban Affairs Review*. 35(1): 92-111.

Guest, Avery. (2000). The Mediate Community: The Nature of Local and Extralocal Ties within the Metropolis. *Urban Affairs Review*. 35(5): 603-627.

Healey, Pasty. (1998). Institutional Theory, Social Exclusion and Gov-ernance. in *Social Exclusion in European Cities*. edited by A. Madanipour, G. Cars, and J. Allen. London: Jassica Kingsley Pub-lishers.

Jackman, Robert W. and Ross A. Miller. (1998). Social Capital and Politics. *Annual Review of Political Science*. *Annual Review of*

Political Science. 1: 47-73.

Kelling, L. George, and Catherine M. Coles. (1998). *Fixing Broken Windows: Restoring Order and Reducing Crime in Our Communities*. New York: Simon and Schuster.

Kerns, Ade, and Ray Forrest. (2000). Social Cohesion and Multilevel Urban Governance. *Urban Studies*, 37(5-6): 996-1017.

Kreft, Ita, and Jan De Leeuw. (2000). *Introducing Multilevel Modeling*. London: Sage Publications.

Latkin, Carl A., and Aaron D. Curry. (2003). Stressful Neighborhoods and Depression: A Prospective Study of the Impact of Neighborhood Disorder. *Journal of Health and Social Behavior*; 44(1): 34-45.

Liska, A. E. (1987). *Perspectives on Deviance*. Englewood Cliffs, NJ: Prentice-Hall.

Narayan, Deepa, and Michael F Cassidy. (2001). A Dimensional Approach to Measuring Social Capital: Development and Validation of a Social Capital Inventory. *Current Sociology*, 49(2): 59-102.

Newton, Kenneth. (2002). Trust, Social Capital, Civil Society, and Democracy. *International Political Science Review*. 22(2): 201-214.

OECD. (2001). *The Wellbeing of Nations: The Role of Human and Social Capital, Education and Skills*. OECD Center for Education Research and Innovation, Paris, France.

Perkins, Douglas D., and Ralph B. Taylor. (1996). Ecological Assessments of Community Disorder: Their Relationship to Fear of Crime and Theoretical Implication. *American Journal of Community Psychology*. 24: 63-107.

Portes, Alejandro. (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual Review of Sociology*, 24: 1-24.

Putnam, Robert D. (1993). *Making Democracy Work: Civil Traditions in*

Modern Italy.   Princeton, NJ: Princeton University Press.

Putnam, Robert D. (1995).   Bowling Alone: America's Declining Social
Capital.   *Journal of Democracy*, 6(1): 664-683.

Ross, Catherine E. and Sung Joon Jang. (2000).   "Neighborhood Disorder,
Fear, and Mistrust: The Buffering Role of Social ties with Neighbors."
American Journal of Community Psychology 28(4): 401-420.

Ross, Catherine E., and John Mirowsky. (2001).   Neighborhood Disadvan-
tage, Disorder, and Health.   *Journal of Health and Social Behavior*.
42: 258-276.

Ross, Catherine E., and John Mirowsky. (1999).   Disorder and Decay: The
Concept and Measurement of Perceived Neighborhood Disorder.
Urban Affairs Review.   34(3): 412-432.

Ross, Catherine E., John Mirowsky, and Shana Pribesh. (2001).   Power-
lessness and the Amplication of Threat: Neighborhood Disadvantage,
Disorder, and Mistrust, *American Sociological Review*.   66: 568-591.

Sampson, Robert J., and W. Byron Groves. (1989).   Community Structure
and Crime: Testing Social-Disorganization Theory.   *The American
Journal of Sociology*, 94(4): 774-802.

Sampson, Robert J., Stephen W. Raudenbush, and Felton Earls. (1997).
Neighborhoods and Violent Crime: A Multilevel Study of Collective
Efficacy.   *Science*, 277: 918-924.

Skogan, W. G. (1989) Communities, Crime, and Neighborhood Organiza-
tion.   *Crime and Delinquency*, 35: 437-457.

Singer, Judith D. (1998).   Using SAS PROC MIXED to Fit Multilevel
Models, Hierarchical Models and Individual Growth Models.   *Journal
of Educational and Behavioral Statistics*.   24(4): 323-355.

Snijders, Tom, and Roel Bosker. (2002).   *Multilevel Analysis: An Intro-
duction to Basic and Advanced Multilevel Modeling*.   London: Sage

Publications.

Stolle, Dietlind. (2000). Social Capital – A New Research Agenda? Toward an Attitudinal Approach. paper presented for the ECPR Workshop 13 Voluntary Associations, Social Capital and Interest Mediation: Forging the Link, Copenhagen, 2000.

Stone, Wendy, and Jody Hughes. (2002). Social Capital: Empirical meaning and measurement validity. Australian Institute of Family Studies.

Uslaner, E. M., and P. Dekker. (2001). The "Social" in Social Capital. In *Social Capital and Participation in Everyday Life*, edited by P. Dekker and E. M. Uslaner, London: Routledge. 176–187.

Van Deth, J. W. (2003). Measuring Social Capital: Orthodoxies and Continuing Controversies. *International Journal of Social Research Methodology*, 6: 79–92.

Wilson, William Julius. (1987). *The Truly Disadvantaged: The Inner City, the Underclass and Public Policy*. Chicago, IL: University of Chicago Press.

Wilson, William Julius. (1996). *When Work Disappears. The World of the New Urban Poor*. New York: Alfred A. Knopf.

Winter, Ian. (2000). Towards a theorized understanding of family life and social capital. Australian Institute of Family Studies. Working Paper No. 21.

Woolcock, Michael. (1998). Social capital and economic development: toward a theoretical synthesis and policy framework. *Theory and Society*, 27: 151–208.

강상진 (1995) 다층통계모형의 방법론적 특징과 활용방법「교육평가연구」, 8(2):63−94.

안성호 곽현근(2003)동내수존의 사회자본에 관한탐색적 연구「지방정부연

　구」, 6(4) : 205～230.

이종수(2002) 지역사회의 자발적집단 「자치행정」, 2 : 25-27.