

Bonding and Bridging Social Capital: The Interactive Effects on Community Action

Kerry Agnitsch, Jan Flora, and Vern Ryan

With the continued devolution of power and resources from state- and federal-centered to locality-centered institutions, rural places are increasingly left to depend on their own resources to survive. One of those resources is found in the structure of local social relationships—that is, the community's stock of social capital. The purpose of this research is to examine the individual and combined effects of two forms of social capital, bonding and bridging, on community action in rural towns. Findings indicate that both bridging and bonding social capital significantly predict community action. In addition, an interaction is found that suggests that one form can make up for weaknesses in the other in communities in which both are not strong.

Keywords: social capital, community action, community development

Over three decades ago, Charles Tilly posed the question, “Do Communities Act?” His answer: “Some communities act some of the time” (1973, p. 212), the extent to which is influenced by a variety of local and societal factors, such as the community's degree of mobilization, the power the community holds in relation to others in its region, and the extent of urbanization. A plethora of studies from a variety of theoretical traditions has since addressed the role of these and other factors that contribute to or hinder local community/collective action (e.g., Hunter & Staggenborn, 1986). Recently, much attention has been given to the social conditions under which community action is likely. This is in part seen in an explosion of interest in the idea that embedded social relationships among community residents are valuable and even necessary resources for communities—these relationships constitute a community's “social capital.”

Social capital is a term that refers to the resource potential of social relationships. The main premise behind social capital is that well-connected individuals or groups are better able to mobilize other resources to pursue desired outcomes. This rather amorphous premise has been used to explain a variety of outcomes including educational achievement (Coleman, 1988), status attainment (Lin, 1999; Forse, 1999; Dyk & Wilson, 1999), success for new and second generation immigrants (Portes & McLeod, 1999; Lauglo, 1999), career mobility (Burt, 1992), decreases in crime (Kawachi, Kennedy, & Wilkinson, 1999), and economic growth (Fedderke, et al., 1999). In terms of community action, a well-connected community (i.e. one with “community social capital”) should be better able to mobilize local and extra-local resources to effectively act, and indeed, this idea has been empirically supported (Putnam, 1993; 2000).

Kerry Agnitsch is an Assistant Scientist with the Rural Development Initiative at Iowa State University, Department of Sociology, 310 East Hall, Ames, IA 50010. Jan Flora is a Professor of Sociology at Iowa State University. Vern Ryan is an Emeritus Professor of Sociology at Iowa State University. This research is based upon work supported by the Cooperative State Research, Education, and Extension Service, United States Department of Agriculture, under agreement no. 96-35401-3392 and the Rural Development Initiative, College of Agriculture, Iowa State University.

Much of the early research on social capital focused on identifying *levels* of social capital present (for the individual, group, community, or even the nation), and identifying subsequent outcomes that are “better” or “worse” (see Portes & Landolt, 1996) for the unit of interest given the relative presence or absence of social connections (Bourdieu, 1986; Coleman, 1988; 1990; Putnam, 1993; 1996, and many others). Recently, discussion has shifted to considering different forms of social capital, specifically bonding and bridging, that recognize different types of social relations and the importance of resources embedded within network connections. Bonding social capital, which is the close-knit ties among similar individuals or groups, is said to be good for “getting by,” whereas the bridging form, representing “weaker” ties among heterogeneous individuals or groups, connects one to new resources, and is needed to “get ahead” (de Souza Briggs, 1998; Gittel & Vidal, 1998).

Although the question “Do communities act?” has long been of great interest to community sociologists, the answer today is, “They better act.” With the continued devolution of power and resources from state- and federal-centered to locality-centered institutions, rural places are increasingly left to depend on their own resources to survive (Swanson, 2001). As such, a community’s ability to acquire and mobilize resources to accomplish various goals is of central importance. Flora and Flora note:

... [I]f communities and community development professionals can mobilize and modify local organizations and institutions to take advantage of changing circumstances, rural communities can offer a viable option to Americans in terms of lifestyle and livelihood. But if communities and the individuals within them take a passive role or a reactionary stance of denial, rural communities of the future will not only be much smaller and many fewer than the 1980s, but much poorer as well (1990, p. 197-198). The survival of rural communities is at risk, and as Lacy notes: “Without communities ... society can only atrophy. The restoration of local communities on the human scale is essential to renewal at all levels” (2000, p. 23). A central focus, then, for community research should be to develop an understanding of how successful communities do act in order to assist community development professionals and communities in their community action efforts.

In light of these concerns, this paper considers the effects of both bonding and bridging social capital on community action. We seek to understand how each affects community action, and whether there is an interactive effect in the presence of both. Several studies have suggested that the existence and form of local social relations—that is, a community’s social capital—matters a great deal when it comes to community outcomes. And, the conclusion of some is that bridging social capital matters more than bonding. Our goal is to test these ideas empirically across a relatively large number of rural communities to add to the body of knowledge regarding the potentially differential effects of both forms of social capital. The following section discusses social capital and why it is expected to enhance community action. Subsequent sections will describe the methodology used to examine these issues, the findings of the study, and implications for community development.

LITERATURE REVIEW

Social Capital

Researchers in many disciplines are increasingly interested in the effects of social capital. Although the term has been around for decades (Hanifan, 1916; Jacobs, 1961; Loury, 1977), the current scholarly interest in social capital can be attributed to the works of Bourdieu (1986), Coleman (1988; 1990), and Putnam (1993; 1995; 2000). Each explored different topics, but ended with a similar conclusion—social relations are an important resource. Bourdieu identified social capital as a key variable in determining social mobility and the continued reproduction of class relations. It is through social capital that individuals

are able to access other forms of capital (economic and cultural) allowing them to “move up” in social class. Coleman identified social capital as a key variable in influencing educational achievement, which in turn, lessens social inequality (1988). It was the work of Robert Putnam that brought the current state of popularity to the concept (1993; 1995; 1996; 2000). His current research argues that community prosperity is, at least in part, due to the extent and quality of local social networks (2000).

An inherent component of social capital, as with other forms of capital (e.g., human, financial, environmental), is its ability to lead to some outcome for individuals or groups. As Paxton notes, “When social capital is present, it increases the capacity for action and facilitates the production of some good. When active, it facilitates ends for the members of a group and for the group as a whole” (1999, p. 93). Often, social capital is viewed as a mechanism through which other forms of capital are more efficiently utilized. Cavaye describes how all forms of capital (including social) are interdependent:

Having the physical infrastructure or computers or specialized machinery is of little use without the human capital to operate them. Investing financial capital in a new business will be more efficient if there is the physical capital of existing infrastructure and the human capital of skilled employees. Likewise, social capital increases the efficiency of other forms of capital. A group with high levels of trust is able to be more efficient and can produce more than a group with low social capital (2001, p. 7). Similarly, Coleman states, “the concept of social capital allows [for] taking [social] resources and showing the way they can be combined with other resources to produce ... outcomes” (1988, p. S101).

Many studies have tested this notion empirically and found a variety of outcomes occurring for individuals and groups through the presence and use of social capital. For example, Burt found that strategically placing oneself within a social network in the workplace is important for career advancement (1992). Coleman found that access to social capital is vital in keeping students from dropping out of school (1988). Lin argued that immersion in resource-rich networks is important for status attainment (1999). Temkin and Rohe (1998), in their study of Pittsburgh neighborhoods, found that the presence of social capital results in greater neighborhood stability, and that neighborhoods with more social capital were less likely to decline, regardless of other factors. An entire research program has been initiated based on the potential for social capital to serve as a primary resource for reducing poverty and sustaining development efforts in developing nations around the world (see Grootaert & van Bastelaer, 2001, and the World Bank Social Capital Initiative Website, <http://www.iris.umd.edu/socat/default.htm>).¹

Many agree that social capital facilitates access to resources and allows for more effective use of them (Putnam, 2000; Warren, Thompson, & Saegert, 2001). Because of the conception of social capital as a positive resource, much early research linking social capital to various outcomes took a “more is better” approach. Social scientists were concerned with how much social capital was present, with the assumption that more social capital led to better outcomes. That assumption was quickly challenged by scholars noting various negative effects of close-knit, trusting groups. For example, Portes identifies four negative consequences of social capital: the exclusion of outsiders, excess claims on group members, restrictions on individual freedoms, and downward leveling norms (1998, p. 15). In his study of ethnic groups who control certain economic markets in various cities, Waldinger (1995, p. 557) concluded that “[T]he same social relations that enhance the ease and efficiency of economic exchanges among community members implicitly restrict outsiders.” Bowles and Gintis argued that social capital in the form of tightly connected groups often results in “insider-outsider distinctions” and poor treatment of those who do not belong (2002, p. F428; see also, Durlauf & Fafchamps, 2004). They noted that while high social capital may be effective, this “limited scope ... often imposes inescapable

costs” (p. F427). Although many of these negative consequences affect individuals, many densely connected, trusting groups produce negative outcomes for society. Street gangs, mafia families, drug rings, and racial supremacy groups are all likely characterized by high levels of social capital, yet their actions often lead to harmful ends.

Forms of Social Capital

Partly in response to these “downsides” of social capital, scholars have recognized that the “more is better” approach is overly simplistic—“more” can actually be worse—and that social capital can take on different forms. Following Granovetter’s (1973) notion of strong and weak ties, distinction has been made between *bridging* and *bonding* forms of social capital (Gittell & Vidal, 1998; Putnam, 2000). The central difference between the two is whether the ties are homogeneous or heterogeneous. *Bonding* social capital is “inward looking and tends to reinforce exclusive identities and homogeneous groups” (Putnam, 2000, p. 22). It is found among densely connected groups with strong, affective ties connecting group members to each other, and is important in providing social support and increasing in-group solidarity. The close-knit, dense relationships that comprise bonding social capital are loose examples of Coleman’s (1988) closed networks that encourage trust and norm development. *Bridging* social capital, in contrast, connects people or groups who are different from each other in some way and addresses how social capital facilitates resource acquisition. Unlike bonding social capital, where networks are comprised of similar people with presumably similar resources, bridging social capital is crucial in acquiring a wider variety of resources and enhancing information diffusion within and between groups (Putnam, 2000).

These distinctions provide a way to recognize some of the costs of social capital, particularly those of being enmeshed in the dense, closed networks celebrated by Coleman (1988). A good number of authors agree that bonding (dense, homogeneous networks) and bridging (weaker, heterogeneous networks) lead to different outcomes, and that many of the negative outcomes of social capital ensue because of too much bonding and not enough bridging. Bridging social capital mitigates many of the “costs” by providing ties external to a given group, allowing individuals greater access to resources and reducing dependency (Woolcock, 1998; Putnam, 2000). Some scholars argue that the optimal effects of social capital are found when both forms are present (Saegert, Thompson, & Warren, 2001; Warren et al., 2001; Stone & Hughes, 2002).

Community Social Capital

The concept of social capital describes how social relations are a resource to individuals and groups. Communities are no exception, and indeed, a significant body of literature exists seeking to identify features of “community social capital” and its potential outcomes. This line of research is based on the idea that social capital is a collective asset found in the relations between and among individuals and groups, and that although individuals both contribute to and use it, they cannot own it (Warren et al., 2001). Putnam is generally credited with being the first to focus on social capital as a feature of communities (1993), although Coleman (1988) identified community social capital as a factor that enhances educational attainment. They differ in that Putnam, unlike Coleman, viewed community social capital as a community resource rather than a resource to individual citizens. Many scholars have found significant outcomes associated with community social capital. For example, Saegert, Thompson, and Warren’s book (2001) contains several chapters describing how community social capital relates to the ability of people in poor communities to mobilize resources and improve their situations. Saxton and Benson (2005) found that high levels of community social capital

were related to the creation of local non-profit organizations. Community social capital has also been found to influence levels of income for individuals and families, providing communities with a stronger economic base (Tiepoh & Reimer, 2004).

Distinctions between homogeneous (bonding) and heterogeneous (bridging) ties are also relevant to social capital at the community level. Woolcock recognized the importance of “two distinct, but complementary forms of social capital” in a community—embeddedness and autonomy (1998, p. 162). Embedded ties are those among members of a group, and are characterized by a “high degree of density and closure” (p. 163). Autonomous social ties are those between groups or ties that “provide access to a range of *non*-community members” (p. 164). Similarly, Paxton noted a distinction between within-group and between-group community-level social capital (1999). For Paxton, social capital within a single group (bonding social capital) may be positive for that group, but does not necessarily “spill over into...social capital for the community” (p. 96), and can even have negative effects such as in the mafia or ethnic separatist groups. She argued, “[P]ositive, community level social capital would be expected to occur when there are positive, trusting ties between individuals in different groups (p. 97).

Social Capital and Community Action

In this research, community action is viewed as a form of place-based collective action, involving the mobilization of local residents and resources toward a common, locality-oriented goal (see Wilkinson, 1970; 1991; Luloff, 1999; Zekari, 1999; Sharp, 2001). This type of action might involve such things as creating a local industrial park, holding a festival or a town-wide clean-up, and so on. The main criteria is that the action involves local efforts that benefit the community in some way.

Both bonding and bridging social capital have been deemed important in terms of community action. Woolcock argued that the presence of both local, embedded (bonding) and external, autonomous (bridging) ties was crucial in successful community development. He contended that, “[T]o overcome the numerous collective action problems entailed in coordinating ‘developmental’ outcomes, actors—and the groups of which they were members—had to be able to draw on both ‘embedded’ [bonding] and ‘autonomous’ [bridging] ties” (p. 164). He further stated that embedded social ties are “a necessary but insufficient condition for long-term development; autonomous social relations complementing the benefits and where necessary offsetting the costs of embeddedness are also required” (1998, p. 164). Kavanaugh and her colleagues found that organizing for collective action is most effective in communities high in both forms of social capital (2005). Similarly, Temkin and Rohe found that where both forms of social capital are present, residents are more committed to the community and have greater ability to act collectively in its behalf (1998). The commitment is a function of bonding, and the ability to act is largely a function of bridging.

However, researchers continue to recognize the potential negative effects of community social capital, particularly when bonding outweighs bridging. Bowles and Gintis argued that highly homogenous groups, like some communities, “may make it impossible to reap the benefits of economic diversity associated with strong complementarities among differing skills and other inputs” (2002, p. F427). Similarly, Cohen found that the absence of “intervening institutions,” which provide linkages to resources, renders the high bonding social capital often present in poor communities less useful (2001). The prominence of bonding over bridging has been identified as contributing to the formation of fragmented, exclusive groups (Portes, 1998; Paxton, 1999; Adler & Kwon, 2002). In communities characterized by this structural exclusiveness, community action is less likely for two reasons. First, action is likely to occur only within the fragmented groups, and thus, it will

be of primary benefit only to that group (e.g., the growth machine). Second, actors will have fewer resources to pool because they will be limited to those resources found within the group. Where linkages between different groups exist (bridging social capital), these consequences are lessened.

Although he did not use the term “social capital”, Wilkinson echoed concerns about the primacy of bonding over bridging social capital in rural communities and posits that both are important resources for rural viability (1991). He argued that the predominance of primary relationships in rural communities promotes strong ties (akin to bonding social capital), but hinders the development of weak ties (like bridging social capital). He further noted that while “strong ties encourage community” (p. 57), the lack of weak ties “is a deficit and not a strength of rural social life. Adaptive capacity is impaired by a lack of diversity in community structure, and local well-being is depressed as a consequence” (p. 57).

In sum, bonding and bridging social capital have been found to effect community outcomes, sometimes in different ways. The central distinction between bonding and bridging social capital is that of homogeneous versus heterogeneous ties, and the different costs and benefits each provides. Heterogeneous ties can be horizontal or vertical, as researchers have noted—Paxton’s form of bridging social capital focused on horizontal, between-group ties (1999), while Woolcock’s “autonomous” ties are analogous to vertical ties (1998; see also, Warren et al. 2001; Halpern, 2005). Some researchers suggest that both forms are important (Woolcock, 1998; Temkin & Rohe, 1998), while others suggest that bridging is more effective than bonding in producing desired outcomes (Saxton & Benson, 2005).

In light of these arguments, we are examining whether and how bridging and bonding social capital interact at the (geographic) community level to influence the extent of local community action. We wish to understand whether bonding and bridging social capital affect community action differentially, and whether the two interact to produce a “synergy” that greatly enhances community action, as posited by Woolcock (1998) and Temkin and Rohe (1998). Our hypotheses to be tested are listed as follows:

1. Bridging and bonding social capital will each positively predict community action.
2. Community action will be strongest in the presence of both bridging and bonding forms of social capital.
3. An interaction effect between the two forms of social capital is expected. The specific nature of this interaction will be of two forms:
 - a. First, we expect a positive or reinforcing influence of bridging and bonding social capital on community action. We refer to this as the synergistic effect.
 - b. Second, we expect the levels of community action to be greater when bridging is high and bonding low than when bonding is high and bridging low.

METHODOLOGY

The data used for this analysis come from two mail surveys conducted in 99 rural communities in Iowa. (Communities designated as “rural” were those between 500 and 10,000 in population that were not coterminous with a metropolitan area.) In 1994, one community meeting these criteria was randomly selected from each of Iowa’s 99 counties. A stratified random sampling procedure was utilized to ensure that the sampled communities reflected the population distribution of rural communities throughout the state. In the first mail survey, questionnaires were sent to a random sample of 150 households in each community. Within each household, the head or co-head was asked to complete and return the questionnaire. For half of the questionnaires, a male head or co-head was selected; in the other half, a female head or co-head. Instructions also indicated that if no head

or co-head of the sex requested was present, then the existing head of household was to complete the questionnaire. A modified Dillman method (1978) was utilized in which a postcard reminder was sent to households two weeks after the initial survey and letter, followed by a replacement questionnaire two weeks after the postcard for those who had not responded. Of the 14,850 questionnaires sent, 10,798 were completed and returned for a response rate of 73%. Community level characteristics are represented by either the mean of residents' responses or the proportion of residents in a given response category (i.e. percentage who work locally).

The second mail survey was conducted with "key informants" in the 99 communities in 1997. Key informants were selected from five different sectors within each community: government, business, media (newspaper editor), church, and civic. If a community did not have an informant in a particular sector (some communities did not have a newspaper, for example), the number of informants selected was less than five. The response rate for this survey was 75%. Community-level attributes were determined in two ways. For factual questions (i.e., "Does the community belong to the state League of Municipalities?"), the modal response of respondents is used. For attitudinal data (i.e., "How active is the local Chamber of Commerce?"), the mean value of informants' responses is used.²

Measurement of Variables

The dependent variable, community action, is a composite measure of six items measuring different types of community activities that represent "locality oriented" efforts (Wilkinson, 1970; 1991) that result in some benefit to the local community. These include efforts to address housing needs (building new housing, discussing housing needs, providing low income housing, etc.), economic development activities (revitalizing downtown areas, creating an industrial park, promoting tourism, etc.), contributions by local financial institutions (low interest loans, grants, etc.), activities of local churches that benefit the community, and the activity level of various local organizations and city government (see Table 1 for item wording and descriptive statistics).³ All items were chosen to represent action by a wide variety of community groups and institutions that we expected would contribute to improving the community. To assess the validity of these items, exploratory factor analysis was conducted which showed that these items form a single dimension (all factor loadings were greater than .65). Additionally, Cronbach's Alpha is high (.7750).

Bridging social capital is operationalized as the extent of the community's heterogeneous, external ties. The greater the community's formal and informal ties to the outside, the greater the likelihood that community leaders and members will be exposed to new ideas and new ways of doing things. (See Woolcock, 1998; Gittell & Vidal, 1998; Warren et al., 2001). Such ties may be vertical, such as links to regional or national organizations, or horizontal, such as through lateral learning from and with other communities. Accordingly, our measure is a factor-based composite of two count scales measuring the various linkages the community has with other communities and with state and national organizations and institutions. Factor analysis revealed a single dimension with loadings exceeding .80, and Cronbach's Alpha is acceptable at .6620 (see Table 2).

Bonding social capital is measured by a factor scale comprised of items indicating the extent of local ties present in the community, including friendship, organizational, religious, work, and recreational ties. On balance, these local ties suggest interactions with and among persons with similar backgrounds—that is, homogeneous ties. This measure follows closely with Temkin and Rohe's (1998) operationalization of "socio-cultural milieu" that Gittell and Vidal (1998) view as analogous to bonding social capital. Factor loadings for this scale, as shown in Table 3, are all greater than .85, and Cronbach's Alpha is .8478.

Table 1: Descriptive statistics and item wording: Community Action (n=99)

	Mean	S.D.	Range	Factor Loading
Housing activities ^a	3.03	1.76	0-7	.644
Actions to promote economic growth ^b	2.66	1.79	0-5	.822
Locally oriented action by financial institutions ^c	3.08	1.24	0-4	.676
Actions by local churches ^d	3.11	.90	0-4	.692
Activity level of local organizations ^e	11.24	3.67	0-21	.821
Activity level of city government and chamber ^f	4.23	1.27	0-6	.786
Alpha = .7750				

^a A Guttman scale of whether or not seven different actions related to housing development had taken place in the community including discussing housing needs, building conventional housing, building privately owned townhomes, providing a location for a mobile home park, building subsidized elderly housing, low income housing or subsidized apartment housing. Coefficient of reproducibility = .91.

^b A Guttman scale of five activities to promote economic development: a downtown revitalization project, expansion of local businesses, building an industrial park, providing financial assistance for local business and actions to promote tourism. C.R. = .89.

^c A Guttman scale of support provided by local financial institutions including providing commercial or low-interest loans for local projects, giving grants or in-kind donations to local projects, providing marketing or technical assistance to local businesses, and whether or not bank personnel serve on local boards or committees. C.R. = .93.

^d A Guttman scale of action undertaken by local churches including contributing to a local food pantry, holding community-wide ecumenical services, initiating a community improvement project, and contributing funds or volunteers for social service needs. C.R. = 1.00.

^e A summative scale of mean ratings of level of activity where 1= not active, 2= somewhat active, and 3 = very active for the following organizations: economic development groups, service and fraternal organizations, housing development groups, job-related organizations, environmental organizations, commodity or farm organizations, and historical societies; alpha = .73.

^f A summative scale of mean ratings of level of activity where 1= not active, 2= somewhat active, and 3 = very active for the chamber of commerce and city government; alpha = .54.

Table 2: Descriptive statistics and item wording: Bridging Social Capital (n=99)

	Mean	S.D.	Range	Factor Loading
Linkages with other communities ^a	3.32	1.83	0-6	.869
Linkages with state/national organizations ^b	2.09	1.42	0-6	.869
Alpha = .6620				

^a A count scale of the number of "yes" responses to different types of linkages with other communities including joining another community to lobby or protest a decision made, or to seek financial or technical assistance, or visiting another community to learn about its development efforts, belonging to a council of governments, a multi-community development corporation, or a regional tourism or marketing group.

^b A count scale of the number of "yes" responses to whether the community belongs to various state or national organizations including State League of Municipalities, a State Chamber of Commerce, a State Industrial Development Organization, a Main Street Program, a National Municipal League, or "other" state or national organization.

Composite scales were created for community action, bonding social capital, and bridging social capital using the variables as discussed. These composites are factor scales, which were used because the items comprising each scale differ substantially in metric—the use of factor scales standardizes the metric so that one variable in the scale is not weighted more heavily than others (see Kim & Mueller, 1978).

Table 3: Descriptive statistics and item wording: Bonding Social Capital (n=99)

	Mean	S.D.	Range	Factor Loading
Proportion of friends living locally ^a	2.69	.31	1-5	.921
Percent who were more involved with local than extra-local organizations	45.76	12.83	0-100	.920
Percent who attend church locally	72.09	16.97	0-100	.885
Percent who work locally	28.39	12.79	0-100	.871
Percent who shop for daily needs mostly in their home community	49.63	28.90	0-100	.857
Percent who stay in their home community for recreation/entertainment	25.53	13.35	0-100	.789
Alpha = .8478				

^a Item wording is "About what proportion of your close personal adult friends live in "community"? Response categories are 1 = I have no friends or none of them live here; 2 = Less than one-half; 3 = About one-half; 4 = Most of them live here; 5 = All of them live here.

Finally, because of the variation in population and distance from heavily populated areas among the 99 communities, population size and distance to a metropolitan statistical area are included as control variables. Population is expected to affect both forms of social capital because larger communities often have more opportunities for local interaction (bonding) in the form of working, shopping, recreation, church, and local organizational involvement as well a greater likelihood of linkages with other communities (bridging). Distance to a metropolitan statistical area is expected to have a positive relationship with bonding social capital because proximity to a metropolitan area will likely draw people away from the local community for work, shopping, recreational opportunities, and so on. The mean population for the 99 communities is 1803.3 persons, and the average distance from a metropolitan area is 45.3 miles (see Table 4).

Table 4: Descriptive statistics: Control Variables (n=99)

	Mean	S.D.
1990 Population ^a	1803.3	1852.4
Distance to MSA (miles)	45.3	23.8

^a Source: US Bureau of Census, 1990

RESULTS

Table 5 contains the zero-order correlations among scales used in this analysis. Both bonding and bridging social capital are positively correlated with each other and with community action. Additionally, population is positively correlated with both forms of social capital and community action. As expected, distance to a metropolitan statistical area is positively correlated with bonding social capital.

A series of regression models were used to examine both the individual and combined effects of bridging and bonding social capital on community action (See Table 6). Hypothesis 1 stated that each form of social capital should contribute positively to community action. Models 1 and 2 show the individual effects of bonding and bridging social capital, respectively, on community action. Both forms of social capital significantly predict community

Table 5. Correlations among independent and dependent variables (n=99)

	Bonding SC	Bridging SC	Comm. Action	Pop	MSA
Bonding Social Capital	1.00				
Bridging Social Capital	.57**	1.00			
Community Action	.69**	.72**	1.00		
Population (1990)	.50**	.64**	.52**	1.00	
Distance to MSA (miles)	.48**	.13	.18	.03	1.00

** Correlation is significant, $p < .01$.

Table 6. OLS Regression Models, Bridging and Bonding Social Capital and Community Action (n=99)

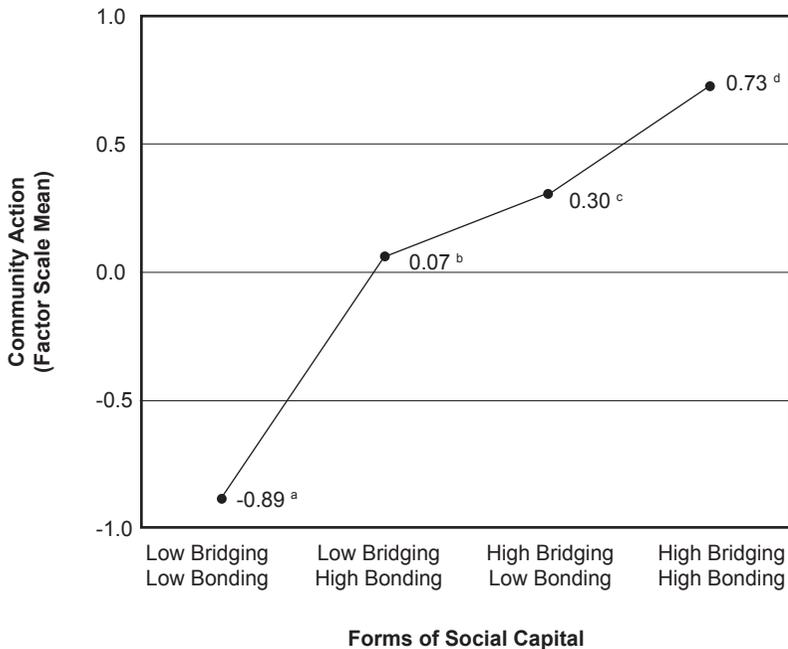
	Standardized Regression Coefficients (t-values)			
	Model 1	Model 2	Model 3	Model 4
Bonding Social Capital	0.66** (6.95)		0.49** (5.40)	0.35** (3.91)
Bridging Social Capital		0.64** (7.00)	0.47** (5.45)	0.50** (6.27)
Interaction: Bridging x Bonding				-0.26** (-4.05)
Population (1990)	0.20* (2.35)	0.11 (1.25)	-0.02 (-.18)	0.12 (1.41)
Distance to MSA	-0.15 (-1.78)	0.09 (1.32)	-0.12 (-1.59)	-0.06 (-0.80)
Adjusted R ²	0.52	0.52	0.63	0.68
F-Score	36.57**	36.87**	43.15**	43.47**
F-Change Statistic				
Models 1 & 3	$F_{(1,94)} = 36.56^{**}$			
Models 2 & 3	$F_{(1,94)} = 29.73^{**}$			
Models 3 & 4	$F_{(1,93)} = 16.43^{**}$			

* $p < .05$; ** $p < .01$

action. Thus, hypothesis 1 is supported. Additionally, the coefficient for population shows a positive and significant relationship with community action in Model 1, but no relationship in Model 2. The coefficient for distance to a metropolitan area is non-significant in both models.

Hypothesis 2 posited that community action is more likely in the presence of both forms of social capital. The combined effects of bridging and bonding social capital on community action are shown in Model 3. Bonding social capital and bridging social capital are both positive and significant predictors of community action. However, neither population nor proximity to a metropolitan area has a significant effect.⁴ Model 3 is an improvement over the previous models with an increase in variance explained of about 11%. This increase suggests that the marginal effect on community action of having both forms is greater than the effect of either separately, providing support for hypothesis 2.

Figure 1. Comparison of Mean Levels of Community Action in Bridging/Bonding Social Capital Quadrants



^a Differs from all others, $p < .01$

^b Differs from Low Bridging/Low Bonding and High Bridging/High Bonding, $p < .05$

^c Differs from Low Bridging/Low Bonding, $p < .05$

^d Differs from Low Bridging/Low Bonding and Low Bridging/High Bonding, $p < .05$

In Model 4, the interaction effect of bridging and bonding social capital on community action is examined. Hypothesis 3a outlined expectations for a positive interaction effect (a synergism) of the two forms. Model 4 adds an interaction term, resulting in a significant improvement in explanatory power over Model 3. In this model, bonding and bridging social capital again positively predict community action. However, the interaction term is negative, meaning that the positive relationship between bonding social capital and community action is weaker within higher levels of bridging social capital. Conversely, the positive relationship between bridging social capital and community action is less where bonding social capital is greater. This finding does not support hypothesis 3, which suggested a synergy between the two forms. Instead, while the presence of both forms is important, the effect is not totally cumulative. In some sense, bridging and bonding social capital may be interchangeable—both forms positively affect community action, but the effect of either is diminished when the other is stronger. Bridging social capital is more important when bonding social capital is low, and vice versa.

Finally, to test for differences between high/low combinations of bridging and bonding social capital, a one-way analysis of variance was conducted to examine differences in mean levels of community action where bonding is high and bridging low, and vice versa. To determine groupings, the bridging and bonding variables were split at the median. Values below the median were considered “low”; those above were considered “high.” Communities were then assigned to one of four possible quadrants: high bonding/high bridging, high bonding/low bridging, high bridging/low bonding, or low bridging/low bonding.

Hypothesis 3b stated that community action will be more likely when bridging is high and bonding is low, than in communities with high levels of bonding and low bridging. Findings show that communities high in either form of social capital, or both forms, have greater levels of community action than those low in both ($F_{(3,95)} = 26.8, p < .001$).⁵ However, while the mean level of community action is greater where bridging is high and bonding low than where bonding is high and bridging low, the difference is not significant. The difference in the mean level of community action between the high bonding/low bridging and low bonding/high bridging communities was .23, which the Scheffe post-hoc test shows to be non-significant ($p = .816$) (see Figure 1). Hypothesis 3b is not supported.

SUMMARY AND CONCLUSIONS

The goal of this paper was to examine the effects of different forms of social capital—bonding and bridging—on community action. Findings indicate that both significantly predict community action separately, but they are more effective when combined. Thus, communities that have a lot of internal interaction can also develop numerous linkages with the outside. Communities that are most successful at collective action, in fact, do both. The substantial zero-order correlation between bridging and bonding social capital ($r = .57$) suggests that a combined inward-and-outward-oriented strategy is not only possible, but it has been achieved by a substantial portion of the rural communities studied. What if it is difficult for a community to be strong on both bridging and bonding social capital? An interaction effect shows that bridging and bonding social capital are, to a degree, interchangeable in their ability to facilitate community action. Either form of social capital is more important in predicting community action when the other is low. Furthermore, it appears to matter little what type of social capital is high; either high-low combination yields significantly more community action than when both are low.

Finally, although action is most likely where both forms of social capital are high, there was no dramatic reinforcement (synergistic effect) of one kind of social capital as the other increased in strength. Stated another way, synergy between two kinds of social capital is greatest when they are at moderate levels. As the two kinds of social capital become stronger, their positive joint effect on community action diminishes. Action is least likely in communities with low levels of bonding and bridging social capital, most likely where both forms are high, but only somewhat less likely when one form is high and the other low. What really matters in terms of community action is the presence of one or the other; both are better, but not as accumulative forces.

The implications for community development are many. First, consistent with other findings (Temkin & Rohe, 1997; Gittel & Vidal, 1998; Putnam, 1993; 2000; Sharp, 1998; 2001; Cattell, 2004), social capital matters when it comes to successful community action. An implication for community development practice, then, is to promote social connections among residents and across groups with access to diverse resources—particularly, extra-local linkages. Successful development is less likely in their absence. Second, both local and extra-local ties support community action. Local relationships (bonds) demonstrate the commitment of local residents to their community and extra-local ties (bridges) provide useful links to outside resources and opportunities.

Finally, while both forms of social capital are important for successful community development, strengths in one form can partially make up for weaknesses in the other. For example, a bedroom community to a larger trade or urban center with strong bridges, but weaker bonds, can see local projects through to fruition. Likewise, more isolated communities, which tend to be strong on bonding social capital, but short on bridging or crosscutting ties, can utilize their high bonding social capital to engage in community action. Once residents determine the kind of community action they would most like to foster, they would then know if they should depend primarily upon their strengths, or if they

should seek to shore up the ties they are lacking. Development practitioners could assist in this process. Gruidl and Stephens suggest strategies for building local ties, particularly in communities that are divided or where ties are lacking (2000).

On the other hand, care must be taken to ensure that social capital is not viewed as “a panacea for the ills of modern society” (Wall et al., 1998, p.313), and assumed by practitioners to be able to make up for the absence of other resources. Warren, Thompson, and Saegert (2001) note that increasing reliance on the self-help model of community development (see Christenson & Robinson, 1989) has led to an undue focus on social resources while ignoring the need for other, non-social resources, especially in poor communities. They note: “Social capital is not an alternative to providing greater financial resources and public services to poor communities. Rather, it constitutes an essential means to increase such resources and make more effective use of them” (p. 2). Further, while Bowles and Gintis argue that because of social capital (“community governance,” as they use it), “Communities can sometimes do what governments and markets fail to do” (p. F423), they also caution, “The face-to face local interactions of a community are ... not a substitute for effective government but rather a complement” (p. F431), and that positive outcomes based on social capital require a legal and governmental environment favorable to allowing social capital to work (2002).

A related implication for practitioners is a caution regarding attempts to build social capital, particularly the bridging form, because it may disrupt existing bonding-like social networks that people have come to depend on. In her study of social capital in Belfast, Leonard (2004) found that marginalized populations often develop strong social connections through reliance on each other as a survival mechanism. She argues that while policies that support the creation of bridging-like ties are important, “Providing bridging social capital is no easy task, and may be achieved at the expense of groups once able to call on bonding social capital (p. 941).

Although this analysis supports the role of social capital in predicting community action, it also raises new questions. More research is needed to examine the specific type of action each form of social capital supports. For example, one might speculate that bonding social capital is more necessary for self-development types of activities whereas bridging social capital (external linkages) is more important in industrial recruitment activities. (Sharp, et al, 2002, provides some evidence for this interpretation.) Additionally, the communities in this study are all small towns in Iowa, meaning they are largely racially and culturally homogenous.⁶ Additional research in less homogenous towns in non-Midwestern settings is needed to determine if these findings hold true in places with greater racial and cultural diversity. Further, this research does not address whether the effects of social capital differ for disadvantaged places high in poverty and/or unemployment, as some current research has shown. For example, Warr found that impoverished places often have adequate stocks of bonding social capital, but have difficulty building bridging social capital because of the negative stereotypes and stigma attached to poverty (2005). Leonard (2004) further cautions that building bridging social capital should not be viewed as the answer to the downsides of close-knit, strong ties—bridging social capital can promote inequalities as well.

Regardless of these questions, our findings indicate that bridging and bonding social capital are strong predictors of community action. Where both are low or absent, community action is likely to be ineffective or nonexistent. Conversely, when both are high, community action is also high. However, our hypothesis that bridging and bonding social capital would be synergistic in contributing to community action was, in the main, not borne out. Rather, when one was weak, the strength of the other became more important. It thus appears that the two kinds of social capital represent alternative strategies for enhancing community action, and perhaps one fosters different kinds of action than does the other.

NOTES

1 It is important to note that there is not universal agreement among scholars regarding the definition of social capital, its components, its causes and mechanisms through which it operates, its measurement, or its outcomes. Some scholars lament the lack of conceptual clarity, difficulties in measuring social qualities such as trust or norms, implications regarding units of analysis, the lack of adequate data, and so on (See Durlauf & Fafchamps, 2004, for a detailed overview of these concerns.). However, others find virtue in the rather “fluid” use of the term—Messner, Baumer, and Rosenfeld argue, “[T]he varied, murky, elusive, and even circular meanings of the concept give it great analytical flexibility and multiply its empirical applications (2004, p. 882).

2 See Krannich and Humphrey (1986) for more detail on the key informant methodology.

3 Guttman scaling procedures were used to create the first four items in this scale. Analysis of the patterns of occurrence for the various activities revealed that they were often related sequentially—for example, building conventional housing was usually preceded by a discussion of housing needs.

4 That population size did not effect community action is surprising given the high correlation between population and community action and past research showing a positive effect of population size (See, for example, Dewald, Espey & Hammig, 2004). A possible explanation for this lack of effect is the existence of a collinearity problem, although diagnostic tests do not reveal any problems. Scores for the condition index and variance inflation factor are all low.

5 Population and distance to a metropolitan area are not included in this model.

6 Although significant changes have since taken place during the past decade, the non-white population in Iowa’s rural communities was extremely small (.8 percent) at the time of this study.

REFERENCES

- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27 (1): 17-40.
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood Press.
- Bowles, S., & Gintis, H. (2002). Social capital and community governance. *The Economic Journal*, 112: F419-F436.
- Burt, R. (1992). *Structural Holes: The Social Structure of Competition*. Cambridge, Mass.: Harvard University Press.
- Cattell, V. (2004). Having a laugh and mucking in together: Using social capital to explore dynamics between structure and agency in the context of declining and regenerated neighborhoods. *Sociology*, 38 (5): 945-963.
- Cavaye, J. (2001). Social capital: the concept, the context. Paper presented at the Social Capital Symposium, Community Service and Research Center, University of Queensland, Brisbane, September 11, 2001.
- Christenson, J. A., & Robinson, J. W., Jr. (1989). *Community Development in Perspective*. Ames, IA: Iowa State University Press.
- Cohen, C. J. (2001). Social capital, intervening institutions, and political power. In S. Saegert, J. P. Thompson, & M. Warren (Eds.), *Social Capital and Poor Communities*. New York: Russell Sage Foundation.
- Coleman, J. S. (1990). *Foundations of Social Theory*. Cambridge, MA: Harvard University Press.
- Coleman, J. S. (1988). Social capital and the creation of human capital. *American Journal of Sociology*, 94, (Supplement S 95-S120): 95-119.
- De Souza Briggs, X. (1998). Doing democracy up close: Culture, power, and communication in community building. *Journal of Planning Education and Research*, 18: 1-13.
- Dillman, D. A. (1978). *Mail and Telephone Surveys: The Total Design Method*. New York: Wiley Interscience.
- Durlauf, S. & Fafchamps, M. (2004). *Social Capital*. NBER, Working Paper # 10485, <http://www.nber.org/papers/w10485>. Cambridge, MA: National Bureau of Economic Research.
- Dyk, P. H., & Wilson, S. M. (1999). Family-based social capital considerations as predictors of attainments among Appalachian youth. *Sociological Inquiry*, 69(3): 477-503.
- Dewald, J., Espey, M., & Hammig, M. D. (2004). Implementation of village self-help projects in the Kyrgyz Republic. *World Development* 32 (11): 1927-1938.
- Fedderke, J., DeKadt, R., & Luiz, J. (1999). Economic growth and social capital: A critical reflection. *Theory and Society*, 28(5): 709-745.

- Flora, C. B., & Flora, J. L. (1990). Developing entrepreneurial rural communities. *Sociological Practice*, 8: 197-207.
- Forse, M. (1999). Social capital and status attainment in contemporary France. *Tocqueville Review*, 20(1): 59-81.
- Gittell, R., & Vidal, A. (1998). *Community Organizing: Building Social Capital as a Development Strategy*. Thousand Oaks, CA: Sage Books.
- Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78: 1360-1380.
- Grootaert, C., & van Bastelaer, T. (2001). Understanding and measuring social capital: A synthesis of findings and recommendations from the social capital initiative. Social Capital Initiative Working Paper No. 24. Washington DC: The World Bank.
- Gruidl, J. & Stephens, J. (2000). The practice of building social networks in divided communities: A case study of a Northern Ireland border Region. *Journal of the Community Development Society*, 31(2): 320-330.
- Halpern, D. (2005). *Social Capital*. Malden, MA: Polity Press.
- Hanifan, L. J. (1916). The rural school community center. *Annals of the American Academy of Political and Social Science*, 67: 130-138.
- Hunter, A., & Staggenborn, S. (1986). Communities do act: Neighborhood characteristics, resource mobilization, and political action by local community organizations. *The Social Science Journal*, 23(2): 169-180.
- Jacobs, J. (1961). *The Death and Life of Great American Cities: The Failure of Town Planning*. New York: Random House.
- Kavanaugh, A. L., Reese, D. D., Carroll, J. M., & Rosson, M. B. (2005). Weak ties in networked communities. *The Information Society*, 21 (2): 119-131.
- Kawachi, I., Kennedy, B. P., & Wilkinson, R. G. (1999). Crime: social disorganization and relative deprivation. *Social Science and Medicine*, 48(6): 719-731.
- Kim, J.-O., & Mueller C. W. (1978). *Introduction to Factor Analysis: What It Is and How To Do It*. Newbury Park, CA: Sage Publications.
- Krannich, R. S., & Humphrey, C. R. (1986). Using key informant data in comparative community research. *Sociological Methods and Research*, 14(4): 473-493.
- Lacy, W. B. (2000). Empowering communities through public work, science, and local food systems: Revisiting democracy and globalization. *Rural Sociology*, 65(1): 3-26.
- Lauglo, J. (1999). Working harder to make the grade: Immigrant youth in Norwegian schools. *Journal of Youth Studies* 2(1): 77-100.
- Leonard, M. (2004). Bonding and bridging social capital: Reflections from Belfast. *Sociology*, 38: 927-44.
- Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology*, 25: 467-487.
- Loury, G. (1977). A dynamic theory of racial income differences. In P. A. Wallace & A. LeMund (Eds.). *Women, Minorities, and Employment*. Lexington, KY: Lexington Books.
- Luloff, A. E. (1999). The doing of rural community development research. *Rural Society*, 9 (1): 313-327.
- Luloff, A. E. (1990). Community and social change: How do small communities act? In A. E. Luloff & L. E. Swanson (Eds.) *American Rural Communities*. Boulder, CO: Westview Press.
- Messner, S., Baumer, E. P., & Rosenfeld, R. (2004). Dimensions of social capital and rates of criminal homicide. *American Sociological Review*, 69 (6): 882-903.
- Paxton, P. (1999). Is social capital declining in the United States? A multiple indicator assessment. *American Journal of Sociology*, 105(1): 88-127.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24: 1-24.
- Portes, A., & Landolt, P. (1996). The downside of social capital. *The American Prospect*, 26: 18-21.
- Portes, A., & MacLeod, D. (1999). Educating the second generation: Determinants of academic achievement among children of immigrants in the United States. *Journal of Ethnic and Migration Studies*, 25(3): 373-396.
- Portes, A., & Sensenbrenner, J. (1993). Embeddedness and immigration: Notes on the social determinants of economic action. *American Journal of Sociology*, 98(6): 1320-1350.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon-Schuster.
- Putnam, R. D. (1996). Who killed civic America? *Prospect*, March: 66-72.

- Putnam, R. D. (1995). Tuning in, tuning out: The strange disappearance of social capital in America. *Political Science and Politics*, 28(4): 664-83.
- Putnam, R. D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.
- Saegert, S., Thompson, J. P., & Warren, M. R. 2001. *Social Capital and Poor Communities*. New York: Russell Sage Foundation.
- Saxton, G. D., & Benson, M. A. (2005). Social capital and the growth of the non-profit sector. *Social Science Quarterly*, 86 (1): 16-35.
- Sharp, J. S. (2001). Locating the community field: A study of interorganizational network structure and capacity for community action. *Rural Sociology*, 66 (3): 403-424.
- Sharp, J. S. (1998). *The Interactional Community: A Structural Network Analysis of Community Action in Three Midwestern Towns*. Unpublished doctoral dissertation, Iowa State University, Ames, Iowa.
- Sharp, J. S., Agnitsch, K., Ryan, V., & Flora, J. (2002). Social infrastructure and community economic development strategies: The case of self-development and industrial recruitment in rural Iowa. *Journal of Rural Studies*, 18(4): 405-417.
- Stone, W., & Hughes, J. (2002). Why social capital matters. *Family Matters*, Winter: 62-67.
- Swanson, L. E. (2001). Rural policy and direct local participation: Democracy, inclusiveness, collective agency, and locality-based policy. *Rural Sociology*, 66(1): 1-21.
- Temkin, K., & Rohe, W. (1998). Social capital and neighborhood stability: An empirical investigation. *Housing Policy Debate*, 9(1): 61-88.
- Tiepoh, M. G., & Reimer, B. (2004). Social capital, information flows, and income creation in rural Canada: A cross-community analysis. *Journal of Socio-Economics*, 33: 427-448.
- Tilly, C. (1973). "Do communities act?" *Sociological Inquiry*, 43: 209-240.
- Waldinger, R. (1995). The 'other side' of embeddedness: A case study of the interplay between economy and ethnicity. *Ethnic and Racial Studies*, 18(3): 555-580.
- Wall, E., Ferrazzi G., & Schryer, F. (1998). Getting the goods on social capital. *Rural Sociology*, 62(2): 300-322.
- Warr, D. J. (2005). Social networks in a 'discredited' neighborhood. *Journal of Sociology*, 41 (3): 285-308.
- Warren, M. R., Thompson, J. P., & Saegert, S. (2001). The role of social capital in combating poverty. In S. Saegert, J. P. Thompson, & M. Warren (Eds.). *Social Capital and Poor Communities*. New York: Russell Sage Foundation.
- Wilkinson, K. P. (1991). *The Community in Rural America*. Middleton, WI: Social Ecology Press.
- Wilkinson, K. P. (1970). Phases and roles in community action. *Rural Sociology*, 35 (1): 54-68.
- Woolcock, M. (1998). Social capital and economic development: Towards a theoretical synthesis and policy framework. *Theory and Society*, 27: 151-208.
- World Bank Social Capital Initiative Website, <http://www.iris.umd.edu/socat/default.htm>
- Zekari, A. A. (1999). Community-ness of a major economic development effort in a biracial community of Alabama. *Journal of Rural Studies*, 15 (2): 159-169.