ORIGINAL ARTICLE

Transforming Individual Civic Engagement into Community Collective Efficacy: The Role of Bonding Social Capital

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Abstract Collective efficacy is defined as residents' perceived collective capacity to take coordinated and interdependent action on issues that affect their lives. This study explored factors associated with neighborhood collective efficacy among residents. Utilizing a national sample of 4,120 urban households provided by Annie E. Casey Foundation's Making Connection Initiative, we investigated the mediating role of residents' perceptions of bonding social capital (i.e. reciprocity, trust, and shared norms) in the association between civic engagement and collective efficacy. Multiple regression analyses revealed that civic engagement and bonding social capital were both directly related to collective efficacy. Additionally, bonding social capital partially mediated the relationship between civic engagement and collective efficacy. Specifically, residents who reported greater levels of civic engagement also reported higher levels of bonding social capital. In turn, residents who reported higher levels of bonding social capital also reported higher levels of neighborhood collective efficacy. We discuss implications of these findings for researchers and practitioners interested in associations of neighborhood collective efficacy.

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Introduction

Citizens' ability to engage in neighborhood collective action may rest in their collective sense of efficacy to exert influence over the shared social, economic, and political issues that affect their lives. Collective efficacy is defined as residents' perceived collective capacity to take coordinated and interdependent action on issues that affect their neighborhoods (Bandura 2000; Sampson et al. 1998b). As Bandura (2000) notes: "People's shared beliefs in their collective efficacy influence the types of futures they seek to achieve through collective action, how well they use their resources, how much effort they put into their group endeavor, their staying power when collective efforts fail to produce quick results or meet forcible opposition, and their vulnerability to the discouragement that can beset people taking on tough social problems" (p. 76). At the neighborhood level, collective efficacy has been associated with reductions in violent crime (Browning et al. 2004; Sampson et al. 1997, 1998b), homicide (Morenoff et al. 2001), and obesity rates (Cohen et al. 2006). At the group level, collective efficacy has been linked with perceptions and other measures of group performance (Hodges and Carron 1992; Jung and Sosik 2002; Mulvey and Klein 1998). Finally, at the individual level, collective efficacy is associated with self-rated physical health (Browning and Cagney 2002), disclosure among victims of intimate partner violence (Browning 2002), and reduced fear of crime (Gibson et al. 2002).

Much of the current research on collective efficacy attempts to understand its consequences. However, given

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the beneficial outcomes of collective efficacy and its proposed link to collective action, it is also important to ask: What are some of the antecedents to collective efficacy? Recent work has begun to explore individual and neighborhood predictors of collective efficacy (Wickes et al. 2013). We continue in this vein by examining the mechanisms by which individuals' civic engagement leads to increased collective efficacy. Here, we define civic engagement as individual activities of a democratic, political, and/or civic nature with the intent of addressing an issue of public concern (Chong et al. 2011; Turner and Hamilton 1994).

Individual civic engagement is distinct from collective processes such as collective efficacy, which emphasizes a "conjoint capability for action to achieve an intended effect" (Sampson et al. 2005, p. 676). That is, high levels of individual civic engagement do not necessarily translate into high levels of collective efficacy, or beliefs in neighborhoods' capacity to act (Bandura 2000; Sampson et al. 1997; Watson et al. 2001; Zaccaro et al. 1995). However, individual civic engagement is often touted as resulting in higher levels of collective efficacy, and subsequent collective action (Ohmer 2007; Speer and Hughey 1995; Speer et al. 1995). Here, we contend that although individual civic engagement might result in more collective efficacy, this transformation is not simply the result of individual civic behavior but instead requires a catalyst.

Although some scholars (e.g. Sampson et al. 2005) contend that community organizations serve as such a catalyst, the mechanism by which they do so is not clear. Fortunately, scholars across disciplines have provided some insight into this question through the concept of social capital-and particularly bonding forms of social capital (Kapucu 2011; Portes and Vickstrom 2011). Perkins et al. (2002) argue that bonding social capital consists of norms of reciprocity and trust within social networks. Similarly, Putnam (1995, 2000) contends that bonding social capital consists of trust and norms of reciprocity among members of a civil society. As such, this sense of collectivism amplifies desires of individual prosperity into collective gain. Others take a more structural approach to bonding social capital. Coleman (1988) for example, focuses on the role of cohesive social network relationships in promoting norms of reciprocity and trust, which facilitates collective advantage. In this study, following Perkins et al. (2002) and Putnam (1995, 2000), bonding social capital is defined as the norms of reciprocity and perceptions of trust that exist between neighborhood residents.

Although some have focused on the reciprocal interaction between bonding social capital and civic engagement (e.g. Putnam 1995, 2000), others have suggested that bonding social capital may act as a conduit toward collective processes (e.g. Coleman 1988; Diani and Bison 2004; Welzel et al. 2005). Civic engagement provides the opportunity for individuals to build relationships of trust and reciprocity with others (i.e. bonding social capital), which in turn creates the social infrastructure necessary for individuals to experience high levels of collective efficacy (Ohmer 2007; Zaccaro et al. 1995). As Speer and Hughey (1995) contend, the simple act of engaging civically provides the opportunity to interact with others and build the relationships of trust (i.e. bonding social capital) necessary to foster the efficacy of collective social movements. Thus, the purpose of this study is to empirically test these claims by investigating: (1) the relationship between civic engagement and collective efficacy and (2) the role of bonding social capital as a catalyst.

Civic Engagement as a Promoter of Collective Efficacy

Individual civic engagement may provide a first step toward building collective efficacy. Supporting this idea, researchers have provided evidence of a positive relationship between civic engagement and collective efficacy in a variety of social contexts, including online arenas, community prevention and intervention activities, and neighborhoods. Citizens who participate in online political activities report greater levels of collective efficacy compared to less active citizens (Kavanaugh et al. (2008). Moreover, prevention and intervention studies have demonstrated that civic engagement in community-based activities can lead to more collective efficacy. For example, in an international prevention study, Carlson et al. (2012) found that Tanzanian children who participated in program sponsored community activities (e.g. HIV/AIDS public discourse, social action, etc.) reported higher levels of neighborhood collective efficacy to address the issue of HIV/AIDS. Additionally, Berg et al. (2009) described a risk reduction youth action research prevention program that was successful in facilitating collective efficacy by engaging youth in research and community change activities. In a case study on community gardening, Teig et al. (2009) found that the garden provided opportunities for residents to engage in neighborhood activities, fostering collective efficacy. Finally, neighborhood studies provide even deeper insight into the connection between civic engagement and collective efficacy. In a series of studies, Ohmer and colleagues found a relationship between residents' perceived neighborhood collective efficacy and participation in neighborhood organizations (Ohmer 2008; Ohmer and Beck 2006), particularly within lower-income communities (Ohmer 2007). Based on the literature above, we hypothesize that individuals who are more civically engaged will report greater levels of neighborhood collective efficacy (hypothesis 1).

Bonding Social Capital as a Potential Mediator

Bonding social capital may serve as a potential mediator between civic engagement and collective efficacy. Putnam (1995, 2000) suggests that bonding social capital acts as the substance that adheres the individual "I" into the collective "we". Moreover, his framework contends that civic engagement provides citizens with opportunities to interact and build the trusting relationships that embody bonding social capital. Similar to Putnam's (1995, 2000) framework, Lappe and Du Bois (1997) also argue that in order for bonding social capital to be nurtured, it is necessary to provide opportunities for civic engagement. Empirical studies support this theoretical linkage (e.g. Claibourn and Martin 2000; Paxton 2002). For example, Kirkby-Geddes et al. (2013) found evidence that bonding social capital was linked to participation in a Healthy Living Center (HLC) in the UK. Their qualitative interviews with HLC members suggest that although initial participation in the group may have been difficult for some, overcoming this initial barrier and engaging in group activities allowed for the promotion of bonding social capital among group members. In addition, Lenzi et al. (2013) found that neighborhoods that provided opportunities for young people to engage in activities enabled the development of bonding social capital.

The increased levels of bonding social capital that civic engagement promotes may in turn serve as a mechanism for fostering collective efficacy. Ohmer (2010) argues that the neighborhood is a transactional setting in which residents have the opportunity to enhance collective efficacy through relationship building. She maintains that civic engagement "is a potential mechanism for facilitating neighborhood collective efficacy by providing opportunities for neighbors to develop trusting relationships, which creates the foundation for shared expectations and behaviors" (p. 9). Similarly, Hyman (2002) argues that civic engagement provides opportunities for individuals to build relationships of trust and reciprocity that, in turn, encourage collective community building processes.

From an empowerment perspective, the potential for bonding social capital to act in a mediating role is also evident. For example, reflecting on their years conducting research in the community organizing realm, Speer and Hughey (1995) conclude that civic engagement in organizational settings (e.g. churches, neighborhood organizations, etc.) provides an "avenue through which an individual's cognitive insights and emotional responses can be acted upon" (p. 734) by providing opportunities for these individuals to align their shared interests. They view these organizations as settings where residents who are civically engaged as individuals are placed into the organizational funnel where they build cohesive relationships (i.e. bonding social capital) and exit as a collective unit.

An empowering settings framework (ECS) also highlights how bonding social capital might facilitate collective efficacy among civically engaged individuals (Christens et al. 2014; Maton 2008; Maton and Salem 1995). One factor of an empowering community setting-the social support system-is of particular interest as it mirrors components of bonding social capital. As Maton and Salem (1995) argue, the social support system provides setting actors with access to needed social support and resources to gain power over disempowering situations. In a series of case studies, Maton (2008) found that the social support provided through empowering relationships with members of a community action organization created structures that fostered collective social change value systems. Finally, Christens et al. (2014) highlight how community organizing practices build social relationships among the civically engaged that may foster elements of collective efficacy, and subsequent collective action.

Empirical studies provide some support for the notion that bonding social capital may facilitate collective efficacy. Chicago neighborhood studies, for example, have found a relationship between dense neighborhood social ties, an indicator of bonding social capital theorized by Coleman (1988), and neighborhood collective efficacy (Browning et al. 2004; Morenoff et al. 2001). Criminologists have also demonstrated an association between these two constructs (Sampson and Graif 2009; Sampson et al. 1997, 1998a, b, 1999). Likewise, Wickes et al. (2013) found that neighborhood social ties consistently predicted higher levels of task-specific collective efficacy.

Theoretical contributions from Putnam (1995, 2000), Ohmer (2010), Hyman (2002) and the empowerment literature (Christens et al. 2014; Maton 2008; Maton and Salem 1995; Speer and Hughey 1995) give weight to the notion that the relationship between civic engagement and collective efficacy may be facilitated *through* real or perceived bonding social capital. Thus, we hypothesize that bonding social capital will partially mediate the relationship between civic engagement and collective efficacy (*hypothesis 2*). More specifically, residents who are more civically engaged will report greater levels of bonding social capital (*hypothesis 2a*) and residents who have more bonding social capital will report higher levels of neighborhood collective efficacy (*hypothesis 2b*).

Methods

Study Context and Sample

The data utilized for this study are responses to household surveys conducted between 2008 and 2010 by the Annie E. Casey Foundation's *Making Connections* (MC) initiative. The survey is a component of a multi-year comprehensive community initiative (CCI) that took place within lowincome neighborhoods across seven US cities (Denver, CO; Des Moines, IA; Indianapolis, IN; Louisville, KY; Providence, RI; San Antonio, TX; and Seattle/White Center, WA) with the goal of improving social, educational, economic, and health outcomes for disadvantaged children and their families. The MC initiative is a 10-year CCI that began in 1999 in collaboration with the National Opinion Research Center, Local Management Entities within each community, and the Urban Institute at the University of Chicago. Households were randomly sampled from all addresses in MC neighborhoods and yielded a total sample of 4,316 households. However, 196 cases were deleted listwise from the analyses below due to missing data on one or more model variables. There was not a significant mean difference between dropped cases $(N = 160; M = 3.44; SD = .888)^{1}$ and included cases (N = 4.120; M = 3.41; SD = .930) on our outcome measure collective efficacy (t = .438, p = .661). All subsequent analyses were conducted using household-level probability weights provided by NORC.

Respondents were selected based on whether or not children lived in the sample residence. If children resided in the sample home, a "focus child" was selected at random. After a focus child was chosen, the parent/guardian of the focus child was selected as the survey respondent. If children did not live within the residence, household representatives were chosen at random among all household adults. A majority of respondents (66.5 %) were female and 42.7 % of respondents identified as home owners. On average, respondents were 44.5 years of age (SD = 15.83) and came from diverse racial/ethnic backgrounds with 33.1 % identifying as Latina/o, 30.1 % identifying as Black/African-American, 29.2 % identifying as White/Caucasian, and 7.6 % identifying as other racial/ethnic categories. Respondents also had a range of educational backgrounds with 31.6 % having graduated high school, 29.4 % having no high school diploma, 25.8 % having some college, 9.5 % having graduated college, and 3.6 % obtaining a graduate degree. Finally, 35.4 % of respondents reported that they had received food stamps within the past 12 months. See Table 1 for raw demographic counts and percentages.

Measures

Civic Engagement

A seven-item composite score (M = 1.56, SD = 1.46) was created to assess individuals' civic engagement within

Table 1 Demographic information (raw counts and percentages)

	п	Valid (%)		п	Valid (%)
Race			Education		
Black	1,242	30.1	No HS diploma	1,212	29.4
Latino	1,364	33.1	HS diploma or equivalent	1,303	31.6
White	1,201	29.2	Some college	1,065	25.8
Other	313	7.6	College graduate and beyond	393	9.5
			Graduate degree	147	3.6
Sex			Home ownership		
Female	2,740	66.5	Rent	2,362	57.3
Male	1,380	33.5	Own	1,758	42.7
Received	l food st	tamps in	the past 12 months		
No	2,663	64.6			
Yes	1,457	35.4			

neighborhoods. To assess individuals' civic engagement behaviors, residents responded either "yes" or "no" to each item. Items were summed to obtain an overall individual civic engagement score. Sample items include, "Have you (or any member of your household) spoken with a local political official like your Metro Council Member about a neighborhood problem or improvement?" and "Have you (or any member of your household) talked to a local religious leader or minister to help with a neighborhood problem or improvement?" Items were adapted from existing scales including the Los Angeles Family and Neighborhood Study (Sastry et al. 2006), the HOPE VI Panel Study (Popkin et al. 2002), The Project on Human Development in Chicago Neighborhoods (Earls 1995), The Child and Family Well-Being Study (Winston et al. 1999), and the Neighborhood Quality of Life Survey.

Bonding Social Capital

A five-item scale (M = 3.30, SD = .60) was created to assess bonding social capital among neighbors. Residents responded to items rated on a five-Point Likert-type scale ranging from 1 to 5 ("Strongly Disagree" to "Strongly Agree"). Sample items include, "People in my neighborhood are willing to help their neighbors" and "People in my neighborhood generally don't get along with each other". Items were adapted from existing scales including the Los Angeles Family and Neighborhood Study (Sastry et al. 2006), the HOPE VI Panel Study (Popkin et al. 2002), The Project on Human Development in Chicago Neighborhoods (Earls 1995), and The Child and Family Well-Being Study (Winston et al. 1999). Component scores using EFA with varimax rotation found that all items ranged between .541 and .808 and Cronbach's alpha

¹ Thirty-six cases were not included t test analyses due to missingness on the outcome variable collective efficacy.

indicated acceptable internal consistency ($\alpha = .721$). Although this variable captures the level of bonding social capital in the respondent's neighborhood, we use it here as a proxy for the respondent's own level of bonding social capital.

Collective Efficacy

A five-item scale (M = 3.47, SD = .930) was used to assess collective efficacy within neighborhoods. Sample items include, "If the fire station closest to their house was threatened by budget cuts, how likely is it that your neighbors would do something about it?" and "If some children were spray-painting graffiti on a local building, how likely is it that your neighbors would do something about it?" Items were adapted from existing scales including the Detroit Area Study of 2001, The Social Capital Community Benchmark, and The Project on Human Development in Chicago Neighborhoods (Earls 1995) and were rated on a Likert-type scale ranging from 1 to 5 ("Very Unlikely" to "Very Likely"). Component scores for items using exploratory factor analyses (EFA) with varimax rotation indicate that all items ranged between .594 and .823 and acceptable internal consistency was reached ($\alpha = .79$).

Demographic Control Variables

Six demographic control variables were utilized for this study's analysis. Age was grand mean centered and assessed as a continuous variable with an average age of 44.5 (SD = 15.83). Education was broken into five categories, which included No High School Diploma, High School Diploma or Equivalent (e.g. GED), Some College, College Graduate, and Graduate School and Beyond (e.g. graduate/professional school graduate). Race was split into four categories and included Black/African-American, Latina/o, White, and Other. For analysis purposes, education and race categories were dummy coded (i.e. 0/1)reference groups for subsequent analyses included No High School Diploma and White for education and race, respectively. Analyses also controlled for sex (male = 0; female = 1), whether the respondent had received food stamps in the past 12 months (no food stamps = 0; received food stamps = 1), and home ownership status (renter = 0; owner = 1).

Results

We utilized a series of regression analyses to examine our two research questions: "What is the relationship between civic engagement and collective efficacy?" and "What role

	Model 1	Model 2	Model 3
Civic engagement	0.07**	0.063**	0.041*
Age		0.004**	0.003
Education			
HS diploma		-0.070	-0.029
Some college		-0.156*	-0.144*
College education		-0.167	-0.146*
Graduate school		-0.124	-0.110
Race			
Black		0.158*	0.130*
Latino		0.240**	0.179**
Other		-0.238*	-0.264**
Female		0.015	0.057
Food stamp recipient		-0.149*	-0.094*
Home ownership status		0.047	-0.024
Bonding social capital			0.691**
Intercept	3.366**	3.330**	1.087**
\mathbf{R}^2	0.010	0.056	0.256

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

does bonding social capital play as a mechanism for promoting collective efficacy?" Model results are presented in Table 2. Intra-class coefficients (ICC) indicate that a small percentage of variance in collective efficacy is explained at the tract- (4.8 %) and city-levels (1.7 %). In all of the models presented below, we adjust for this small amount of clustering at the tract-level by using cluster robust standard errors.

We found support for hypothesis 1: "Individuals who more are civically engaged in their neighborhoods will report higher levels of collective efficacy". To test this hypothesis, we estimated three Ordinary Least Squares (OLS) regression models with cluster robust standard errors to test the effect of civic engagement on collective efficacy. As indicated, Model 1 reveals a positive relationship between civic engagement and collective efficacy (b = .070, p < .001). Models 2 and 3 expanded this result by demonstrating that even after incorporating demographic control variables (Model 2) and bonding social capital (Model 3), the effect between civic engagement and collective efficacy is still evident (Model 3: b = .041, p < .05). Results also indicate that several demographic control variables, including receipt of food stamps, educational status, and race were predictors of collective efficacy. Specifically, residents without a high school diploma reported higher levels of collective efficacy compared to those with some college or a college degree; and Black and Latino/a residents reported greater collective efficacy compared to White residents but White residents reported greater levels of collective efficacy compared to

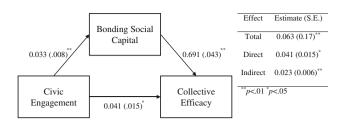


Fig. 1 Total, direct, and indirect effects

those categorized as an "Other" race. In addition, residents who had not received food stamps in the past 12 months reported more collective efficacy than those who had. Finally, we found that bonding social capital is also a significant predictor of collective efficacy (b = .691, p < .001).

We also found support for the hypotheses: bonding social capital will partially mediate the relationship between civic engagement and collective efficacy (H2) where residents who are more civically engaged will report greater levels of bonding social capital (H2a) and residents who have more bonding social capital will be more engaged in collective efficacy (H2b). We estimated three complimentary regression models proposed by Baron and Kenny (1986) to test the meditational nature of these hypotheses. Total, direct, and indirect effects are provided in Fig. 1. Results indicate that bonding social capital partially mediates the relationship between civic engagement and collective efficacy. The Sobel standard error test (Preacher and Haves 2004) indicates a significant indirect effect (estimate = .023, SE = .006, p < .001). This provides evidence that residents who are civically engaged are more likely to report greater levels of collective efficacy in their neighborhoods, but also does so by enhancing bonding social capital. Consequently, residents with greater bonding social capital are also more likely to report higher levels of collective efficacy.

Discussion

This study found a positive relationship between civic engagement and collective efficacy, where residents who were more civically engaged reported greater levels of collective efficacy in their neighborhoods. Moreover, results indicated that the relationship between civic engagement and collective efficacy was partially mediated by bonding social capital. Specifically, residents who were more civically engaged reported greater levels of bonding social capital and residents who reported greater levels of bonding social capital also reported greater levels of collective efficacy. Each of these results is described in greater detail below.

This study demonstrated that residents who were engaged in civic events-such as talking with elected officials-report greater levels of neighborhood collective efficacy. This relationship was present even after controlling for individual level demographic factors such as resident age, race, and education level. This result provides support for neighborhood scholars (e.g. Ohmer 2007, 2008; Ohmer and Beck 2006) who contend that residents who participate in neighborhood organizational activities report greater levels of collective efficacy within their neighborhoods. In addition, the direct relationship between civic engagement and collective efficacy resonates with prevention scholars (Berg et al. 2009; Carlson et al. 2012) who find that individuals who are more engaged in program components report greater levels of collective efficacy in addressing complex social issues.

Findings also provide evidence that the relationship between civic engagement and collective efficacy is partially mediated through bonding social capital. First, there was a positive relationship between civic engagement and bonding social capital. This result is consistent with claims that engagement in civic events provides opportunities for citizens to interact and build relationships of trust (Lappe and Du Bois 1997; Putnam 1995, 2000), and that those who engage in community and organizational activities have greater opportunities to build relationships of trust, or bonding social capital (e.g. Speer and Hughey 1995). It provides support for the argument that the development of bonding social capital may be enhanced through greater opportunities to engage in community building activities (Lenzi et al. 2013).

Additionally, there was a positive relationship between bonding social capital and collective efficacy. This result provides support for the empowering community settings (ECS) framework (Fedi et al. 2009; Maton 2008; Maton and Salem 1995), which implies that the social support that bonding social capital provides may give actors a sense of unity that enables them to engage collectively. This finding also extends past research that identified a positive relationship between *structural* components of bonding social capital (e.g. Browning et al. 2004; Morenoff et al. 2001) and collective efficacy, by demonstrating a similar relationship for *perceptual* components of bonding social capital.

In sum, the indirect effect between civic engagement and collective efficacy gives some support to the notion that through engagement in civic events, residents gain the opportunity to build relationships of trust (i.e. bonding social capital) with other citizens (Hyman 2002; Ohmer and Beck 2006; Putnam 1995, 2000), and additionally, those relationships give citizens a sense of oneness that enhances their perceptions of collective efficacy (Fedi et al. 2009). Indeed, the results of this study supports political scientists (e.g. Putnam 1995, 2000) who contend that bonding social capital may be the potential catalyst that enhances the individual "I" into the collective "we".

In light of the findings above, this research has several implications for community change efforts. The first implication concerns comprehensive community initiatives (CCIs), such as the Making Connections Initiative funded by the Annie E. Casey Foundation-from which the data for this study were gathered. CCIs promote community change by engaging residents in community change efforts (Chaskin 2001; Foster-Fishman and Long 2009). This research suggests that CCIs should continue to provide opportunities to engage citizens individually through participation in community and organizational events (Foster-Fishman et al. 2013). The results here suggest that these activities may provide opportunities for collective movements to grow by enhancing the efficacy of neighborhoods. The positive link between civic engagement and bonding social capital also suggests that opportunities for citizens to become civically engaged may enhance a shared sense of unity between them-a potentially important element in fostering collective efficacy. This research finds that through relationship building among neighbors, citizens may become empowered to enhance their collective capacity.

Second, it provides some support for the relational organizing methods employed by such community organizing networks as the Industrial Areas Foundation (IAF), the Gamaliel Foundation, and People Improving Communities through Organizing (PICO) (Christens 2010, 2014; Speer et al. 1995). In these community organizing initiatives, local community organizers focus on promoting the formation of relationships among local residents as an indirect way to build their collective efficacy. This strategy mirrors the second leg of the indirect effect in our mediated model, where we find that increasing bonding social capital can lead to significant increases in collective efficacy. Accordingly, our findings suggest that relationally-based community organizing strategies may be effective ways for community organizers to help communities enhance their collective capacity to influence their environment.

Strengths, Limitations, and Future Directions

The design of this investigation provides a robust sample of neighborhoods and residents across urban cities in the United States. As such, the results of this investigation provide some insights into the processes of civic engagement, bonding social capital, and collective efficacy within urban neighborhoods. Additionally, the constructs under investigation and their relationships are consistent with findings across other contexts such as Ohmer and colleagues' (Ohmer 2007, 2008, 2010; Ohmer and Beck 2006) work on the link between civic engagement and collective efficacy, the work on civic engagement and social capital conducted by Putnam (1995, 2000), and the relationship between bonding social capital and collective efficacy advanced in the ECS framework (Fedi et al. 2009; Maton 2008; Maton and Salem 1995),

However, several limitations of this study should be noted that may be addressed in future research. First, the perceptual nature of this investigation provides insight into residents' understanding of the constructs under investigation. However, objective measures of these constructs would be useful. For example, objective measures of bonding social capital might include social network assessments of the structural relationships between community residents and objective measures of civic engagement might include the number of meetings attended by members of volunteer organizations, as indicated by signin sheets (Christens and Speer 2011). Second, this investigation's cross-sectional design does not provide evidence of causation. Although the theoretical mechanism for collective efficacy flows directly and indirectly from civic engagement, it could also be justifiably argued that those who report greater levels of collective efficacy are more likely to engage civically. Future studies should incorporate a longitudinal design to better understand the causal mechanisms at play between the constructs under investigation. Finally, the individual level nature of this study provides a small glimpse into the process of collective efficacy within neighborhoods. Although evidence provided by this study suggests that within neighborhoods, civic engagement promotes collective efficacy through bonding social capital, these findings may not generalize across various settings and levels of analysis (e.g. within organizations, cities, states, etc.). Neighborhoods provide certain structural opportunities (e.g. geographic propinquity) for residents to interact and build cohesive relationships, whereas other settings, such as online networks, these opportunities may not exist and/or may manifest differently. Looking into the future, studies should investigate the reliability of these processes across a variety of ecological levels and contexts.

Conclusion

This study investigated the relationship among civic engagement, bonding social capital, and collective efficacy within urban neighborhoods across seven US cities. Results indicate a direct positive relationship between civic engagement and collective efficacy; a direct positive relationship between bonding social capital and collective efficacy; and an indirect relationship between civic engagement and collective efficacy as partially mediated by bonding social capital. These results have implications create shared goals and a sense of unity, and build their collective efficacy to address issues that affect their communities.

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