Article

Family Social Capital, Family Social Bonds, and Juvenile Delinquency

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Abstract

There is a long history in criminology of examining the effects of social bonds on criminal behavior. A similar conceptual framework that developed in sociology is social capital theory. Studies using these models have addressed the effects of parent–child relationships on adolescent behavior. However, social bond theory tends to predominate as an explanation of juvenile delinquency. We developed a comparative analysis of measures of family social bonds and family social capital using nationally representative data on youth (N = 6,432). Measurement models suggested that family social capital is a more parsimonious latent construct than family social bonds. Moreover, it is a more efficient predictor of delinquent behavior. Thus, we encourage criminologists to adopt family social capital as a promising concept and empirical variable in their quest to understand delinquent behavior.

Keywords

family social capital, family social bonds, juvenile delinquency, measurement

There is a long history in criminology of examining the effects of social bonds on delinquent and criminal behavior. Although bonding mechanisms had been discussed for many years, it was Travis Hirschi (1969) who developed a formal social bond theory. He posited that various types of bonds—attachments, involvement, commitments, and beliefs—impede one's natural inclinations toward delinquent and criminal behaviors. More recently, he characterized these bonds as "inhibitors" that affect a youth's decision to engage in delinquency (Hirschi, 2004). For instance, attachment to parents, which centers on affectionate ties, should discourage untoward behaviors that

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youth may otherwise consider. Similarly, commitment to conventional norms of behavior is antithetical to delinquent behaviors, with those more committed less likely to engage in these behaviors (Gottfredson, 2006).

The development of social capital theory offers a parallel trajectory of interest in sociology. Although social capital has come to mean several different, though related, concepts, it was given life primarily by James S. Coleman (1988). In addition to noting that social capital includes a variety of features that facilitate certain actions of actors, he explicitly placed actors' decisions in the context of a social structure. Social capital's conceptualization is that individuals invest in one another intentionally, such as when parents invest in their children's well-being. Some of the investments are manifest by (a) trust that others will meet their obligations, (b) the existence of norms and effective sanctions, and (c) information channels about these norms and sanctions.

Social capital is normally classified as bonding or bridging capital (Putnam, 2000). Bonding social capital includes intrafamily connections, such as between parents and their children. Bridging social capital focuses on the social connections that parents and children have with extrafamilial actors such as neighbors, school personnel, and work colleagues (Crosnoe, 2004; Gordon & Cui, 2012). In this study, we focus on bonding social capital, though bridging social capital is also an important concept for understanding youth behaviors (Beaudoin, 2007). A fair assumption is that bonding social capital built in families should decrease involvement in delinquent behavior (Dufur, Hoffmann, Braudt, Parcel, & Spence, 2015; Dufur, Parcel, & McKune, 2013; Wright, Cullen, & Miller, 2001).

There are obvious similarities between social bond theory and social capital theory, yet there have been few efforts to evaluate their complementary nature. Some researchers have combined ideas from the two theories to posit that various networks of relations (e.g., neighbors, work colleagues) involving obligations and expectations facilitate social bonds that then inhibit criminal behaviors (Laub & Sampson, 1993). Others have pointed out that social capital is a form of informal social control that enhances moral values and decreases delinquent friendships. Moreover, the development of social capital involves active engagement by parents to socialize their children (Wright et al., 2001). Researchers have not, however, explicitly examined the two theories to gauge their empirical similarities and differences.

Since both social capital and social bonds consider family mechanisms that affect youth outcomes, such as delinquency, and have generated large literatures on child well-being (Hoeve et al., 2012; Hoffmann, 2015; Parcel, Dufur, & Zito, 2010), it is useful to compare these two models with an eye toward improving the conceptual rigor and empirical validity of both. This will also provide delinquency, social capital, and adolescent researchers with guidance on how to capitalize on their complementarities in order to enhance our understanding of family influences on delinquent and related problem behaviors.

The purpose of this study was to, first, consider the conceptual similarities and differences between family social capital and family social bonds. Second, we conducted an empirical examination of their measurement properties and predictive validity using a nationally representative sample of youth in the United States. The results

suggested that family social capital offers an enhanced picture of delinquent behaviors beyond what is accounted for by family bonds.

Background

There are a variety of criminological theories designed to explain the association between family relationships and juvenile delinquency. One of the most frequently used is Hirschi's (1969) social bond theory. He posited that family attachments, in particular affectionate ties between parents and their children, are key for understanding involvement in delinquency. Based on the assumption that humans are naturally inclined to be hedonistic and act selfishly, his theory notes that without adequate attachments to parents or others, adolescents are free from morally imposed constraints on their behavior. In an atmosphere of relative freedom, they are more likely to decide to engage in delinquent acts (Hirschi, 2004). Yet when youth have affectionate ties to others, especially parents, they will not wish to jeopardize their relationships by behaving badly. This is mainly due to the virtual supervision or psychological presence of parents created by these close ties (Costello & Vowell, 1999; Hirschi, 1969; Stillman, Tice, Fincham, & Lambert, 2009).

Although Hirschi described several other bonding mechanisms—commitment, involvement, and beliefs—research has consistently shown that affectionate ties are negatively associated with delinquent behavior (Hoffmann, 2015). In addition, related concepts such as supervision by and involvement with parents are related to less involvement in delinquency (Hoeve et al., 2012; Murray & Farrington, 2010). Thus, one might argue that solid family social bonds are vital for preventing juvenile delinquency.

An alternative, though similar, model used to explain how family relationships affect youth behaviors addresses family social capital. Social capital refers generally to resources that inhere in relationships among actors and facilitate a range of social outcomes (Coleman, 1990; Parcel & Dufur, 2001; Portes, 1998; Putnam, 2000). Social capital theory addresses actors' purposeful investments. In describing this model, Coleman (1988) focused on information, obligations, and norms transmitted through social ties. The ties themselves, as well as the information, obligations, and norms that travel across them, compose resources that help youth understand and internalize appropriate behavior.

Family social capital is composed of bonds between parents and children, which include the time and attention parents spend interacting with children, investment in their activities, and promotion of their well-being (Dufur, Parcel, Hoffmann, & Braudt, 2016; Kim & Schneider, 2005). Considering children's academic development, Coleman (1988) argued that parents must invest in their children's development and engage in interactions with them to create the bonds through which both knowledge and proachievement norms can pass. These interactions begin at birth and continue through childhood and adolescence to include monitoring, encouraging children's prosocial activities, and engaging in concerted cultivation of desirable outcomes (Lareau, 2011). Furthermore, social capital investments stimulate positive child socialization (Dufur et al., 2015, Dufur et al., 2016; Wright et al., 2001).

Social capital investments also build cumulative trust within the family, another feature helpful to children's acquisition of prosocial norms (Adler & Kwon, 2002). Social capital theory, then, explains mechanisms and processes by which bonds between children and other actors produce desirable behavioral outcomes. Adult investment in children is more than supervision; it creates the mechanisms by which children are socialized and educated. Indeed, research has shown that greater family social capital is associated consistently with less delinquent behavior (Dufur et al., 2015; Hoffmann & Dufur, 2008) and alcohol or drug use (Dufur et al., 2013).

Similarities and Differences Between Family Social Bonds and Family Social Capital

Although family social bonds and family social capital developed chiefly along independent pathways, there are some obvious similarities. Both consider, in general, interpersonal links that exist between parents and children, as well as the quality of these links. Researchers from both camps use the term "bonds" to refer to these links (cf. Costello & Vowell, 1999; Dufur et al., 2015; Wright et al., 2001). Moreover, both perspectives place a heavy emphasis on norm acquisition, elucidating how social connections promote the adoption of prosocial norms that protect against delinquent and other untoward behaviors.

There are, however, some key distinctions between these two perspectives. Perhaps the most important conceptual difference involves what Coleman (1988) referred to as communication channels. These are interpersonal routes through which information is shared between individuals, such as between parents and children, as they are socialized to behave in certain ways or to adopt certain norms and values. In contrast, social bond theory is largely silent about how particular bonds are affected by communication between parents and their offspring. It focuses on the strength of the affectionate relationships between parents and children, as well as relationships with others, to posit a mechanism that attaches youth to conventional society. This then induces involvement in conventional pursuits, commitment to conventional roles, and beliefs that are consistent with societal norms (see Hoffmann, 2011, p. 152). It is not clear, however, how family attachments translate into these other bonds. What is it that parents do, besides providing affection, that leads to stronger commitments and beliefs? Social capital theory answers this question by noting that the transition between affection and commitment requires time investments by parents and consistent interactions during which norms and obligations can be communicated to and inculcated in youth.

Some researchers have considered parent–child communication in empirical measures of family social bonds, but this not consistent with the theoretical model (see Hirschi, 1969), which did not explicate the mechanism underlying how norms are transmitted from parents to youth. For instance, even Hirschi (1969, p. 90) included a measured called "intimacy of communication" as an indicator of attachment to parents in his initial empirical test of social bond theory. He found that youth who discuss and share thoughts, feelings, and future plans with parents tend to report fewer delinquent

acts. Others have taken a similar empirical approach by including some measure of parental–child communication as an indicator of attachment (e.g., Costello & Vowell, 1999). Yet a careful reading of the theory, as built by Hirschi (1969), fails to address communication and rather focuses on whether a person cares about the "wishes and expectations of others" (p. 18) or whether they experience "indirect" or "personal controls" (p. 19). Thus, we see the conceptualization of social bond theory as lacking in how it characterizes a mechanism that leads youth to internalize conventional norms or how this leads to commitment or conventional beliefs.

Social capital theory also accommodates the notion that close ties with actors can promote antisocial norms and outcomes. For instance, youth may develop their strongest social bonds with delinquent peers or in gangs, which then affects their own delinquent conduct. Similar to financial capital when one is in debt, social capital can thus be negative. Though antisocial norms and bonds might be damaging, they can be transmitted just as easily across social ties as can prosocial norms (Dasgupta & Serageldin, 1999). These are enhanced through the same mechanisms as positive social capital, such as investment and communication channels. On the other hand, social bond theory has tended to discount the idea that strong attachments between youth and delinquent peers lead to delinquent behaviors. Rather, Hirschi (1969) argued that delinquent youth are not sufficiently attached to others—delinquent or conventional—and that it is this lack of attachment that allows natural hedonistic impulses to emerge and affect their misbehaviors.

These similarities and differences between social bond theory and social capital theory call for an empirical comparison of the two. Nonetheless, before engaging in such a comparison, it is important to note that social capital theory includes concepts that appear as fundamental to some other criminological theories. For instance, attention to how norms are transmitted from parents to children in social capital theory is similar to the emphasis in Ronald L. Akers's (2011) social learning theory on being exposed to norms that favor or reject antisocial behaviors. In family social capital, the assumption is that as parents build strong affectional bonds with their children and spend time talking with them, they are better able to communicate prosocial bonds and increase the likelihood that their children will adopt them. This is a key part of the process of investment in children and involves learning environments similar to those discussed by Akers (2011).

Family social capital's combined emphasis on affectionate bonds and parental investments is also analogous to some attempts at theoretical integration in criminology. For instance, Elliott, Huizinga, and Ageton (1985) argued that a lack of socialization in the family, which indicates poor parental investment, leads to weak social bonding, which then affects delinquent relations and behaviors. Catalano and Hawkins (1996) based their social development model on the supposition that opportunities for involvement and interactions between parents and children are necessary for the creation of affectional attachments and norm commitments that reduce subsequent involvement in delinquent behavior. Both sets of researchers endeavored, in part, to integrate aspects of social bond theory and social learning theory.

Yet no criminological theory to date has been as systematic as social capital theory at accounting for family-based mechanisms that affect youth behaviors. In particular, family social capital articulates both the presence of bonds and the transmission of norms in a single model, whereas conceptualizations of family social bonds have been concerned mainly with the mere existence of bonds and have not attended sufficiently to what these bonds do and how they are part of a process of norm transmission from parents to children. Thus, we view family social capital as a potentially valuable elaboration of family social bonds, one that might enhance our understanding of how parents affect youth behaviors such as delinquency. Although family social capital may also augment other criminological theories such as social learning theory or integrated models, the explicit links to social bond theory discussed by criminologists (e.g., Laub & Sampson, 1993) and the fact that both focus on family relations as vital to understanding youth behaviors compel us to offer a comparative evaluation of these two models.

Research Objectives

Our goal in this initial comparison of family social bonds and family social capital was to evaluate their measurement properties and predictive utility using nationally representative data on youth in the United States. The comparison was designed to assess the following questions: Is family social capital an alternative or complement to family social bonds in the study of delinquent behavior? How do these concepts compare empirically in a measurement model? How do they compare in terms of predictive validity?

Data and Method

We utilized data from the first wave of the National Longitudinal Study of Adolescent to Adult Health (Add Health) to develop measurement models of family social bonds and family social capital. Data were gathered from students in Grades 7 to 12, parents, and schools during the 1994-1995 academic year. The survey included an in-home component administered to 20,745 students. Although subsequent waves of data were also gathered, the main concern of our analysis was to examine the measurement properties of family social bonds and family social capital; as a result, we relied on the first wave only. Since the scope of variables available for the empirical models was not circumscribed by data restrictions, we used the public use file. Thus, the sample size used in these analyses was 6,432. In addition, since the Add Health study oversampled certain groups (e.g., Hispanics) and was based on a stratified sampling design, all analyses used sampling weights along with correction for the design effects of the survey (Chen & Chantala, 2014).

To obviate item missing data, we utilized multiple imputation. This was accomplished by constructing 10 multiply imputed data sets using a chained equations method of multiple multivariate data imputation to improve power and efficiency in the estimates (Graham, 2009). Each imputed data set was separated by 100 iterations

because graphical diagnostics indicated that the imputation model converged well before that point (Enders, 2010). The models were estimated separately on each of the imputed data sets and Rubin's (1987) formulas were used to combine parameter estimates and standard errors into a single set of results.

Measures

We opted to formulate a strict comparison between extant empirical measures of family social capital and family social bonds by drawing on two recent studies of each, both of which used the Add Health data set (Dufur et al., 2015; Gault-Sherman, 2012). Thus, there might be some conceptual overlap among our measures of family capital and family bonds, but, as illustrated by the empirical results, there are also important distinctions.

The measurement of family social capital was guided by Dufur et al.'s (2015) analysis of social capital and delinquent behavior. Their analysis began by considering a large number of Add Health variables that could plausibly be indicators of family social capital. After an exhaustive analysis of these variables using measurement models, they narrowed the number of variables down to 12 that best captured the conceptual contours of family social capital. Consistent with their work, we relied on eight variables that were based on questions that asked youth respondents how close they felt to their mothers and fathers, whether their mothers and fathers are warm and loving, whether they were satisfied with communication with their mothers and fathers, and whether they were satisfied with their relationships with their mothers and fathers. The response options ranged from 1 = *not at all/strongly disagree* to 5 = *very much/strongly agree*. We used these variables to identify two latent constructs: maternal warmth and paternal warmth.

The other four variables involved communication between parents and their children about school. These were based on questions that asked youth whether they talked to their mothers and fathers about school and grades, as well as about other school topics in the past 4 weeks. The response options were no (coded 0) and yes (coded 1). Consistent with Dufur et al. (2015), we identified the resulting latent construct as "school talk."

The measurement of family social bonds was directed by Gault-Sherman's (2012) examination of social bonds' effects on delinquent behavior. Utilizing the Add Health data, she distinguished among three types of family bonds: parental attachment, parental involvement, and parental monitoring. Parental attachment was measured by the same variables as those used by Dufur et al. (2015) to measure maternal warmth and paternal warmth, as well as two questions that asked whether one's mother and father "cares about me."

Parental involvement was gauged by a series of nine questions that inquired whether youth did particular activities with their mother or father in the past month. The activities included gone shopping; played a sport; attended a religious service; talked about who they were dating; talked about parties they attended; gone to a movie, play, concert, sporting event, or museum; talked about personal problems; talked about school or grades; or worked on a school project. Each was coded as no = 0 and yes = 1.

Parental monitoring was assessed by seven questions that asked youth about decisions their parents made for them. These included the time they must be home on weekend nights, the time they must be home on weekday nights, the people they hang around with, how much television they watch, what they wear, what time they go to bed, and what they eat. Each was coded as no = 0 and yes = 1. Although one might argue that parental involvement and monitoring are also, conceptually speaking, indicators of family social capital, we adopted Gault-Sherman's (2012) emphasis on their role as social bonds.

A measure of delinquent behavior was needed to test the predictive validity of the social capital and social bonding constructs. Hence, we examined items to measure two types of behaviors: property and violent offenses. Property offenses were gauged by questions that asked about past 12 month involvement in graffiti, deliberately damaging property, shoplifting, stealing something worth less than $50, stealing something worth more than $50, car theft or joyriding, and selling illegal drugs. Violent offenses were assessed by past 12 month involvement in getting into a serious physical fight, hurting someone badly, threatening someone with a weapon, or taking part in a group/gang fight. The variables were coded 0 = *never*, 1 = *once or twice*, and 2 = *three or more times*.

The test of predictive validity also included several control variables, each of which has been shown in previous studies to affect delinquent behavior and may be implicated in the association between parent–child relations and delinquency (Dufur et al., 2015; Gault-Sherman, 2012; Hirschfield & Gasper, 2011; Hoffmann & Dufur, 2008; Worthen, 2011). These included school social capital, peer delinquency, sex, age, race/ethnicity, family income, parental education, residing with two parents, grades in school, and whether English was spoken in the home.

Consistent with Dufur et al.'s (2015) research, the measure of school social capital was based on five questions that inquired about feeling close to people at one's school, feeling like one is part of the school, happy to be at school, whether teachers treated students fairly, and feeling safe at school. The response options ranged from 1 = *not at all/strongly disagree* to 5 = *very much/strongly agree*.

Peer delinquency—a key predictor of delinquent behavior in numerous studies (e.g., Knecht, Snijders, Baerveldt, Steglich, & Raub, 2010)—was measured using a combination of peer network and self-report data (Haynie & Osgood, 2005). As part of the in-school Add Health survey, respondents nominated up to five male and five female friends. Since the survey was given to all students at the participating schools, all within school nominations could be linked to self-report data. Respondents were asked, "During the past 12 months, how often did you . . . " (a) Smoke cigarettes and (b) get drunk. The responses ranged from 0 = *never* to 6 = *nearly every day*. A similar item asked, "In the past year, how often have you gotten into a physical fight?" The responses ranged from 0 = *never* to 4 = *more than 7 times*. The mean score of all the nominated friends who were part of the sample was included for each peer delinquency item: smoking, getting drunk, and fighting. We created a latent variable from these three means using a principal components analysis designed for categorical variables (Kolenikov & Angeles, 2009).

Sex was an indicator variable coded 0 = female and 1 = male. Age in years was coded 11 to 17. Grades in school were measured by the average self-reported marks in English or Language Arts, Mathematics, Science, and History or Social Studies. Family income was measured in thousands of dollars, but the natural logarithm of this variable was used to normalize its distribution since it manifested sizeable skew. Parental education was the highest level of education reported by either parent. Living with both parents was coded 0 = do not live with both biological parents and 1 = live with both biological parents. The race/ethnicity categories included White, African American, Hispanic, Asian/Pacific Islander, Native American, and other. White comprised the reference group. Finally, whether English was spoken in the home was a dichotomous indicator coded 0 = no and 1 = yes.

Analysis Plan

Our first objective was to develop measurement models of family social capital and family bonding that could be compared directly. Thus, we initially subjected all of the relevant family bond and capital variables to a latent variable analysis in several stages. The latent variable models were estimated with a robust weighted least squares routine that is designed for categorical indicators. Research has demonstrated that this estimation approach converges well and leads to low bias in parameter estimates with large samples (Finney & DiStefano, 2006).

Since we were guided by previous efforts that developed latent variables for family social capital and family bonds, we used a confirmatory factor model to gauge the measurement properties of the presumed latent variables. Next, we considered model fit and factor loadings to determine if some of the observed items did not load well. We also assessed both single-order and second-order factors since, as found by Dufur et al. (2015) and Costello and Vowell (1999), social capital and social bonds may manifest themselves in a hierarchical fashion. Finally, we compared trimmed models to assess if family social capital or family social bonds fit the data better. Model fit was assessed with the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the weighted root mean residual (WRMR), which gauges the average size of the residuals from the model. Smaller values on the RMSEA (especially below 0.05) and the WRMR suggest a better fit.

We also utilized a confirmatory factor model with the delinquency items to determine the measurement properties of the presumed property and violent offending constructs. Following this step, we estimated full structural equation models to assess the relative predictive validity of family social capital and family social bonds on the two types of delinquent behavior. These models included the control variables described earlier.

Results

Before presenting the final measurement models, note that we considered the possibility of an additional, previously undescribed theoretical model that might subsume both of the theories described here. This model posits that the family social capital and

Table 1. Measurement Model of Family Social Capital, Add Health, 1994-1995.

Variable	Factor loadings
Maternal warmth	**0.766**
Close to mother	0.787
Mother warm and loving	0.759
Satisfied communication with mother	0.903
Satisfied relationship with mother	0.943
Paternal warmth	**0.776**
Close to father	0.819
Father warm and loving	0.851
Satisfied communication with father	0.918
Satisfied relationship with father	0.962
School talk	**0.483**
Talked with mother about school and grades	0.772
Talked with mother about other school topics	0.856
Talked with father about school and grades	0.832
Talked with father about other school topics	0.928
RMSEA	0.023
CFI	0.970
WRMR	2.925
Sample size	6,432

Note. RMSEA = root mean square error of approximation; CFI = comparative fit index; WRMR = weighted root mean residual. Standardized factor loadings are provided. The bolded numbers represent the second-order loadings. All loadings are statistically significant at $p < .01$. The models are estimated with a robust weighted least squares routine designed for categorical indicators, based on weighted data, and adjusted for the complex sampling design of the Add Health.

social bond variables used by Dufur et al. (2015) and Gault-Sherman (2012) may be reduced to a single latent construct. We also evaluated whether the latent constructs developed by these authors could be fit simultaneously using the Add Health data. Neither of these attempts led to adequately fit models. For instance, the model would not converge in the latter evaluation, probably due to the empirical difficulty in loading several items on more than one latent construct.

The best fitting model for family social bonds is presented in Table 1. It is nearly identical to the measurement model discussed in Dufur et al. (2015). Small differences were likely due to the Add Health sample employed in their study (Dufur et al. used restricted Add Health data, which provided a larger sample size). The model was based on a second-order factor analysis, with the three latent variables—maternal warmth, paternal warmth, and school talk—represented in a higher order factor characterizing family social capital. The model fit was good, with an RMSEA of 0.023, a CFI of 0.97, and a WRMR of 2.93. Most of the factor loadings exceeded 0.70, with only the second-order loading for school talk below 0.50.

Table 2 presents similar information from the analogous family social bonds model. Note that there were some differences between this model and that provided by Gault-Sherman (2012). For instance, some of the observed involvement variables did not load well with the others (e.g., attended a concert or sporting event). In addition, a second-order factor model did not provide a sufficient fit, with monitoring in particular, failing to load with the other two latent constructs. Though this is consistent with Gault-Sherman's (2012) research (she kept the latent social bond constructs separate), it is at odds with Costello and Vowell's (1999) study that found that a single latent construct accounted for attachment, monitoring/supervision, and beliefs. Given the results, we opted to keep as distinct three constructs designed to measure parental attachment, involvement, and monitoring. In addition, using separate bonding constructs in the measurement model led to a better fit (RMSEA = 0.025; CFI = 0.965; WRMR = 3.11).

Table 3 provides the results of the best fitting measurement model for the delinquent behavior items. The analysis suggested that distinguishing between violent and property offenses led to the best model fit. In fact, attempts to fit a second-order factor model, with a higher order latent construct accounting for both property and violent offenses, failed to converge. We thus estimated structural equation models for property and violent offenses separately in the predictive validity exercise (cf. Felson & Haynie, 2002).

The results of the models designed to predict delinquent behavior are presented in Table 4. They suggested a slightly better fitting model for family social capital, with larger CFIs and smaller WRMRs. One key difference was that, among the social bond constructs, only parental attachment had a noticeable relationship with delinquent behavior. Neither involvement nor monitoring had a statistically significant association with either type of delinquent behavior. This is not surprising given that family social capital, which shares several observed indicators with attachment, had a statistically significant association with both types of behaviors. But it is at odds with other studies that have discovered an association between involvement or monitoring/supervision and delinquent behavior (e.g., Hoeve et al., 2012; Murray & Farrington, 2010).

The family social capital and attachment variables were better at predicting property offenses than they were at predicting violent offenses. For instance, the standardized coefficient for family social capital was −0.193 ($p < .01$) for property offenses, but only −0.043 ($p < .05$) for violent offenses.

Discussion

The results of the analysis provided support for the notion that family social capital furnishes a clearer and more parsimonious conceptual picture than does family social bonds of some key mechanisms that affect delinquent behavior. Its parsimony is noted by how it captured two key elements of parent–child relations: affectionate ties and communication patterns. The latter are largely missing from social bond theory, even if some researchers have included questions about parent–child communication in

Table 2. Measurement Model of Family Social Bonds and Delinquency, Add Health, 1994-1995.

Variable	Factor loadings
Attachment	**0.803**
Close to mother	0.816
Mother cares about me	0.777
Mother warm and loving	0.766
Satisfied communication with mother	0.902
Satisfied relationship with mother	0.940
Close to father	0.846
Father cares about me	0.816
Father warm and loving	0.849
Satisfied communication with father	0.918
Satisfied relationship with father	0.967
Involvement	**0.437**
Talked mother school/grades	0.618
Talked mother school topics	0.759
Mother took me to religious event	0.809
Movie/other event w/mother	0.538
Worked on project w/mother	0.585
Talked father school/grades	0.666
Talked father school topics	0.793
Father took me to religious event	0.808
Movie/other event w/father	0.588
Worked on project w/father	0.636
Monitoring	**0.172**[a]
Home weekend nights	0.416
Hang around with	0.431
What I wear	0.633
TV viewing	0.715
TV programs	0.748
Bed time	0.633
Eating habits	0.645
RMSEA	0.031
CFI	0.940
WRMR	4.121
Sample size	6,432

Note. RMSEA = root mean square error of approximation; CFI = comparative fit index; WRMR = weighted root mean residual. Standardized factor loadings are provided. The bolded numbers represent the second-order loadings. With one exception (Monitoring), all loadings are statistically significant at $p < .01$. The models are estimated with a robust weighted least squares routine designed for categorical indicators, based on weighted data, and adjusted for the complex sampling design of the Add Health.
[a]Loading has a p value of .18.

Table 3. Measurement Model of Property and Violent Delinquency, Add Health, 1994-1995.

Variable	Factor loading
Property crimes	
Graffiti	0.709
Damage property	0.715
Shoplift	0.902
Car theft	0.616
Steal > $50	0.834
Steal < $50	0.900
Breaking and entering	0.821
Sell illegal drugs	0.686
Violent crimes	
Fighting	0.818
Hurt someone	0.828
Threaten with weapon	0.837
Group/gang fight	0.770
RMSEA	0.057
CFI	0.951
WRMR	3.173
Sample size	6,432

Note. RMSEA = root mean square error of approximation; CFI = comparative fit index; WRMR = weighted root mean residual. Standardized factor loadings are provided. All loadings are statistically significant at $p < .01$. The models are estimated with a robust weighted least squares routine designed for categorical indicators, based on weighted data, and adjusted for the complex sampling design of the Add Health.

their operationalization of family social bonds (cf. Gault-Sherman, 2012; Sieving, McNeely, & Blum, 2000). In any event, we disagree with those who have included parent–child communication in empirical manifestations of family social bonds and submit that a combination of affection and communication is actually an expression of family social capital (Crosnoe, 2004; Dufur et al., 2015).

The lack of parsimony of family social bonds is further indicated by the extraneous nature of two constructs: involvement and monitoring. Although these have played a consistent role in tests of social bond theory (e.g., Costello & Vowell, 1999; Intravia, Jones, & Piquero, 2012; Worthen, 2011), they failed to predict delinquent behavior in the present analysis. It is not clear why this is the case, but it may be that the monitoring items are measures of parental strictness or control rather than supervision. Furthermore, the involvement items, which appear to include spending time with youth, do not discriminate delinquent conduct because parents are likely to spend time with their children both when they behave (because they like being with them) and when they misbehave (because they are trying to keep them out of trouble). It is also clear from recent studies that monitoring and involvement, as measured here, are not as important as youth disclosure: the willingness of youth to tell parents what they are

Table 4. Predictive Validity of Family Social Capital and Family Social Bonding Constructs on Delinquent Behavior, Add Health, 1994-1995.

Explanatory variable	Property offenses	Violent offenses
Social capital model		
Family social capital	−0.193**	−0.043*
School social capital	−0.061**	−0.087**
Peer delinquency	0.369**	0.334**
RMSEA	0.023	0.025
CFI	0.970	0.972
WRMR	2.925	3.027
Social bond model		
Attachment	−0.200**	−0.067*
Involvement	0.024	0.027
Monitoring	−0.013	0.023
School bonds/capital	−0.061**	−0.074**
Peer delinquency	0.370**	0.338**
RMSEA	0.026	0.028
CFI	0.922	0.919
WRMR	3.929	4.147

Note. RMSEA = root mean square error of approximation; CFI = comparative fit index; WRMR = weighted root mean residual. Standardized regression coefficients (beta weights) are provided. See Tables 1 to 3 for the measurement models of family social capital, family social bonds, and delinquent behavior. The models presented in this table include adjustments for parental education, family income, two-parent families, sex, age, school grades, race/ethnicity, and whether English is spoken in the home. They are estimated with a robust weighted least squares routine designed for categorical indicators, based on weighted data, and adjusted for the complex sampling design of the Add Health. The sample size is 6,432.
*p <.05. **p < .01.

doing when away from home (e.g., Garthe, Sullivan, & Kliewer, 2016; Keijsers, Branje, VanderValk, & Meeus, 2010).

Returning to our guiding research question of whether family social capital is an alternative or complement to family social bonds, we think it is the latter. Family social capital elaborates family social bonds by bringing to the forefront the mutual roles of affection and communication that are necessary for effective norm transmission from parents to children. It is thus complementary in the sense that it completes an incomplete concept. In addition, social capital theory is better suited to accommodate the idea of bonds themselves as a desirable good because they characterize underlying goods such as norm transmission, trust, and obligations (Coleman, 1988; Portes, 1998; Putnam, 2000).

Nonetheless, as alternative view is that social bond theory may still be useful—or perhaps even as valid as social capital theory—because it clearly articulates a core assumption that people are naturally hedonistic and without adequate societal constraints are inclined to harm others. Social capital theory is agnostic regarding assumptions

about human nature and thus, some may argue, lacks theoretical rigor. We still maintain that family social capital complements social bond theory because it "fills in" some the latter's conceptual holes, namely norm transmission and the notion of bonds as valued social goods. A reasonable position, therefore, might be that these two theories should be integrated in some fashion rather than privileging one over the other (cf. Wright et al., 2001).

One question that remains from the empirical validity exercise is why family social capital was a better predictor of property offenses than of violent offenses. This may be a consequence of the way the constructs were estimated, since regression slopes tend to be larger in magnitude, ceteris paribus, when outcome variables feature more variability (as was the case with property crimes relative to violent crimes; Hoffmann, 2016). It also might reflect the diminished severity of property crimes that leads to more youth engaging in them. Parent–child relations are perhaps more salient as youth consider whether to become involved in minor offending. Violent acts are rarer and tend to involve youth with problems that go beyond family relationships, such as explosive temperaments, psychopathy, and callousness (Burke, 2017; DeLisi & Vaughn, 2015). This might call for integrating some of these factors into social capital theory if one's goal is to understand more serious forms of offending.

Directions for Future Research

Although these results point toward the value of family social capital as a complement to existing criminological concepts used to predict juvenile delinquency, there are several directions researchers might take to enhance our understanding of how families in general affect youth behaviors. First, as mentioned in the introduction, scholars have described two key types of social capital: bonding and bridging (Putnam, 2000). Bonding social capital includes the intrafamily connections that have been shown, in this and other studies, to hinder youth problem behaviors (Dufur et al., 2015; Parcel & Dufur, 2001; Parcel et al., 2010; Wright et al., 2001). Yet there is compelling evidence that children also benefit from the social connections that parents have with extrafamilial actors such as teachers, fellow community members, and work colleagues (Crosnoe, 2004; Dufur, Parcel, & McKune, 2008; Gordon & Cui, 2012; Parcel & Dufur, 2001). These connections illustrate bridging social capital, or capital built with more distant connections. In fact, several of the studies of social capital that guided the current research—and motivated the inclusion of school social capital in the predictive models (see Table 4)—examined some of these social connections, especially those involving parents' interactions with their children's schools (e.g., Dufur et al., 2008; Dufur et al., 2016; Hoffmann & Dufur, 2008). Hence, studies of family social capital and delinquent behavior should consider bridging as well as bonding capital.

Second, social capital is influenced by broader structures, such as communities. Some scholars have extended the model to assess community social capital by considering interpersonal relations, communication channels, civic participation, and trust among residents (Sampson & Graif, 2009). They have noted the diversity of these social capital ingredients across different types of communities. In some areas, social

capital even develops between criminal offenders and conventional residents (Browning, 2009). Youth are not immune to these manifestations of social capital, and living in certain types of environments is bound to motivate the formation of what we heretofore identified as negative social capital. In addition, some families who live in certain types of communities have limited ability to develop social capital because of time demands or limited resources. For instance, single parents residing in poor communities often have to be out of the home for much of the day as they commute to work, have several jobs, or take care of other necessities. This impedes the development of social capital and thus indirectly affects youth social adjustment. Future research should attend to these broader social structures to better understand the constraints on family social capital.

Third, scholars have noted that social capital is not static. Instead, just like human or financial capital, stocks of social capital accumulate over time. What remains unclear, though, is how this affects adolescent behaviors. Capital may also accumulate at different rates for different kinds of actors; similarly, returns to capital may vary for adolescents with different ascribed characteristics (Dufur et al., 2016). Whereas the best evidence to date connects these differences in accumulation of and returns to social capital to academic outcomes, it is reasonable to suggest that the effects of social capital on delinquent behavior may not be the same for youth in different gender, racial/ethnic, and socioeconomic configurations. Longitudinal studies of social capital and delinquency are needed to answer questions about capital accumulation and its effects among different types of youth and their various social environments.

Fourth, the measurement of social capital and social bonds in our analysis was limited because of our reliance on secondary data. Although we based the measures on existing studies, they are not comprehensive. For instance, the Add Health data had no indicators of trust and limited information about the content of communication between children and parents. There are also various types of investments parents make in their children that were not available in the data. Future research designed explicitly to measure the principal aspects of social capital and social bond theory is thus needed to fully adjudicate the validity of each.

Finally, research has determined that social bonds and delinquent behavior are not related only in a unidirectional fashion. Rather, family bonds, such as attachment, and school bonds are reciprocally associated with delinquent conduct (Gault-Sherman, 2012; Hirschfield & Gasper, 2011; Thornberry, Lizotte, Krohn, Smith, & Porter, 2003). It is equally plausible that involvement in delinquency diminishes family social capital over time, with lower levels of parent–child affection and communication as youth become more engaged in misbehavior. It might also affect a transition into negative social capital as youth become enmeshed with delinquent peers and get more involved in a delinquent lifestyle. Additional research is needed to consider this issue.

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